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Committee on Environmental Policy

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for Sustainable Development**

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Item 5 (c) of the provisional agenda
**Progress achieved and challenges encountered in implementation
of phase II of the Strategy and the way forward for phase III:
Findings of the mandatory reporting cycle 2010**

Learning from each other: Achievements, challenges and ways forward – Second evaluation report of the United Nations Economic Commission for Europe Strategy for Education for Sustainable Development[1]

Background document

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[1] The report was prepared by two experts, Ms. Natalia Eernstman and Mr. Arjen Wals, Wageningen University.

I.   Introduction

1.   Recognizing the global importance of Education for Sustainable Development (ESD), Environment and Education Ministers of the UNECE member States adopted the UNECE Strategy for ESD[2] in 2005. After the completion of implementation phase I, a first evaluation report was prepared in 2007. In the following report the progress made during phase II (2007 – 2010) is described by taking stock of existing ESD activities and comparing them with achievements made during the first implementation phase. The report also looks ahead by putting forward recommendations for the closing phase of the Strategy based on the analysis of the data provided by the member States.

A.   The UNECE Strategy for ESD: Taking stock

2.   The aim of the Strategy is to encourage UNECE member States to develop and incorporate ESD into their formal education systems, in all relevant subjects, and in non-formal and informal education. The Strategy's overall objective is to equip people with knowledge of and skills in sustainable development, making them more competent and confident while at the same time increasing their opportunities for leading healthy and productive lifestyles in harmony with nature and with concern for social values, gender equity and cultural diversity.

3.   The following six objectives were set to contribute to the achievement of this aim:

(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.

4.   Furthermore, governments committed to achieving progress in implementing ESD within the UNECE framework distinguish three phases:

(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 strategies and revise these strategies if necessary; and

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

5.   To assess the progress in the implementation of the Strategy a reporting mechanism was developed. The reporting format follows the objectives as listed above; with corresponding indicators and sub-indicators structured in a grid[3] to allow nations to answer the posed questions in a *yes/no* section, as well as provide explanations and examples in a

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2 See UNECE Strategy for ESD (UNECE, 2005; CEP/AC.13/2005/3/Rev.1) and Guidance for Reporting on the Implementation of the UNECE Strategy for Education for Sustainable Development (UNECE, 2009; ECE/CEP/AC.13/2009/10).

3 See "Guidance for reporting", ECE/CEP/AC.13/2009/5.

descriptive part. The completed evaluation format is named a *National Implementation Report* (NIR).

6.   The indicators and the reporting mechanism are meant not to compare but rather to enable countries of the region to learn from each other and advance in the area of ESD. The data are to inspire and to provide a mirror which can help countries and regions in moving forward.

7.   The results of the evaluation of Phase I were presented at the Belgrade Conference[4] in 2007, during which a special Joint Session of Environment and Education Ministers on Education for Sustainable Development considered the progress made in implementing the Strategy and challenges encountered in the first phase. The Chair of the session summarized the main results of the first national implementation reporting as follows[5]:

        (a)   The comprehensive reporting mechanism and set of indicators is valued as an innovative tool that helps countries to evaluate progress in the implementation of the Strategy. The feedback by national implementation reports is considered an important achievement.

        (b)   The fulfillment of phase I for the implementation of the Strategy is well under way; most countries are showing commitment to establishing the necessary policies and institutional structures to implement the Strategy.

        (c)   A stronger partnership between authorities and stakeholders and among different departments, in particular between education and environment ministries, remains an important precondition for enhancing implementation.

        (d)   The competence of educators is often a bottleneck to improving the quality of education.

        (e)   There is a need for capacity building for decision makers and other stakeholders. Informal and non-formal education has the potential to play a special role in this regard.

        (f)   The Strategy's implementation should focus on further strengthening the initial measures and on developing competences, ESD teaching tools and materials and on improving their content.

        (g)   A more integrative conceptualization of ESD needs to be developed to make the move from environmental education to true sustainable development.

        (h)   The implementation should be needs-driven and should respond to country-specific challenges and the common interests identified by sub-regions.

        (i)   ESD should be promoted through capacity building and the dissemination of good practices.

        (j)   More attention should be given to the potential contribution of indigenous and other local knowledge.

B.   The data

8.   The evaluation is entirely based on the National Implementation Reports (NIR) submitted to the UNECE secretariat by UNECE member States. Out of the 56 UNECE

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4 Sixth Ministerial Conference "Environment for Europe"(Belgrade, 10-12 October 2007), ECE/BELGRADE.CONF/2007/INF/3.

5 Sixth Ministerial Conference "Environment for Europe": Chairs Summary, ECE/BELGRADE.CONF/2007/9.

countries, 55 support the Strategy. Thirty-six countries[6] delivered a NIR, of which four[7] are not listed in the quantitative parts of the evaluation as the reports either arrived too late to be included or were incomplete. Where possible, findings from those four reports are integrated throughout the evaluation.

9.   In general the reports were of good quality: most were completed entirely, providing both simple yes/no answers and more detailed descriptions of existing measures and activities. This provided a rich source of data from which both quantitative and qualitative conclusions could be extracted. Some NIRs however did raise questions with regards to reliability as they contained inconsistencies in answers.

10.   From the SEE sub-region, only Croatia submitted a NIR in time, so although listed separately in all tables and figures throughout this document, the information provided can by no means be taken as representative for the entire sub-region[8]. Canada did not complete the 'yes-no' part of the questionnaire in time for the analysis, therefore no quantitative data could be derived. For these two reasons no sound comparisons could be drawn with regards to major trends among sub-regions, as was done in the first evaluation report of this Strategy. Where possible, the report highlights differences and similarities between the sub-regions.

C.   Structure of the report

11.   This report describes the results of the second evaluation of the implementation of the UNECE Strategy for ESD. Section I of the report following this introduction lists the main findings at a glance. The findings are based on the self-assessments completed by the member States. An analysis of the data has resulted in the distillation of a number of key patterns, and trends. The bulk of Section I logically follows the eight Strategy objectives. Where possible concrete examples of activities and ways in which countries fulfill the objectives are given. These are mostly directly taken from the NIRs and slightly adapted to improve readability. Herein, some countries are featured more often than others; this stems from the fact that these member 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.

12.   Section II of the report focuses on the challenges that can be derived from the various National Implementation Reports that were submitted and analysed. Finally, Section III of the report presents key conclusions and recommendations for Phase III and beyond.

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6 Armenia, Austria, Belarus, Belgium, Bulgaria, Canada, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Georgia, Germany, Greece, Hungary, Iceland, Israel, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Malta, Moldova, Netherlands, Norway, Poland, Romania, Serbia, Slovakia, Slovenia, Sweden, Switzerland, Turkey, Uzbekistan.

7 Canada, Denmark, France, Serbia.

8 At the time of the writing of this report the Serbian NIR also arrived but too late to be included here. However the full report is available for review on-line on the UNECE website as are the other NIR's that have been submitted.

II. Meeting the objectives of the Strategy: Progress made

A. Overview: progress in the implementation of the Strategy at a glance

13.   The activities pertaining to objective A – to ensure that policy, regulatory and operational frameworks support ESD- were set to be accomplished during the first phase. The focus of the second phase mainly lies on the objectives B, C and D: promote Sustainable Development through formal, non-formal and informal learning (B); develop the competence within the education sector to engage in ESD (C) and to ensure that adequate tools and materials for ESD are accessible (D).

14.   From the self-assessment completed by the participating countries it can be concluded that the implementation of the UNECE Strategy for ESD is mainly 'in progress'. This also seems to reflect statements made by various countries. Generally we can say that: The majority of countries has accomplished or is close to accomplishing objective A. Over the past years governments have evidently put effort in installing the necessary frameworks. The topic of ESD is said to receive increasing attention, but is often still not regarded as a top priority among administrators (at political, and formal/ informal/ non-formal education level). Nations are clearly shifting their attention from the political to the practical. That is, ESD is increasingly addressed in formal, non-formal and informal learning. However, many countries also contend that, although increasing, activities are still sporadic and remain somewhat isolated at the local level without the necessary up scaling, and lack the necessary financial and human support to be fully successful. Lastly, despite the focus on the development of ESD competence, tools and materials in the education section, various countries indicate that they are facing difficulties in realizing this objective.

B. The Reporting Process

15.   The Strategy states that in order to ensure good quality of the NIRs, it is crucial that governments prepare reports in a participatory manner, involving relevant stakeholders at all stages of preparation, as appropriate, and particularly giving them a feasible and workable opportunity to comment on the draft report before its final submission to the UNECE.

16.   The target groups for the NIRs are identified as follows: governments (e.g. for reporting to international bodies, for use for national purposes, and for self-evaluation); international organizations (e.g. for providing a comprehensive basis to governments and other stakeholders to assess progress in implementation and for development of other relevant indicators); non-governmental organizations and other stakeholders (e.g. for learning about performance in implementation of their respective countries and of the UNECE region as a whole).

17.   Only half of the countries provided data on their national reporting process. Several of them explicitly stated or showed that the reporting process was not a multi-stakeholder process as it only involved one or two governmental departments or one scientific institute. It is assumed that the 19 countries that did not provide any data on this topic, did not prepare the NIR in a participatory manner. Hence we could conclude that like in phase I more attention should in the future be given to the involvement on multi-stakeholders in the evaluation exercise.

18.   The Ministries of Environment and Education are almost always mentioned as the lead ESD Ministries. Various countries however indicate that the cooperation between Ministries is not always smooth as there seem to be disagreements in priorities and miscommunications due to differences in terminology in interpretations of key concepts

used. Other government organizations that were mentioned are departments related to for example: emergency situations, agriculture, tourism, development and cooperation, youth and Life Long Learning. These departments tend to be part of Ministries other than those of Education and Environment.

19.   Along with governmental institutions, most often mentioned are academic/ scientific institutions and a variety of different NGOs. The business sector seems hardly involved in the reporting process. Only four countries make explicit reference to this partner. In addition consumer organizations were listed relatively often.

20.   Noticeably, there is almost no mention of the actual practitioners of ESD in formal education, such as school directors and teachers. Only two countries address their involvement. This may be a consequence of the level at which the NIRs are generated.

Reporting process

Example from Sweden

This report has been elaborated in several steps. Information and comments were first received from one group at the Ministry of Education and Research and one group consisting of representatives from the Swedish National Agency for Higher Education, the Swedish National Agency for Education, the Council of Adult Education, WWF Sweden and the Special Adviser to the National Commission for UNESCO, Carl Lindberg. A first draft of the report was then discussed and further elaborated in the two groups. Finally, the draft report was sent for consultation in a wider context and consulted within the Government, before submitted to UNECE.

C.   Policy, regulatory and operational frameworks

21.   The first objective (objective A) states that policy, legislation, operational frameworks and curricula should include and support ESD. Key actions to achieve this could be: to adopt frameworks for ESD for all levels of education, to stimulate the development of interdepartmental and multi-stakeholder cooperation, and to translate the Strategy into national languages.

22.   Bearing in mind the limitations of the evaluation, it can be concluded that compared to Phase 1, countries have made considerable process in the completion of objective A.

23.   From the European Union and other Western European Countries (EU/West) Slovenia, Netherlands, Israel, Germany and Lithuania report completion of all activities pertaining to objective A. The others are well on their way with installing the necessary measures. Only Iceland seems to be seriously lagging behind with almost no yes answers. Subsequently, it can be concluded that countries successfully brought ministries together to implement the Strategy as well as installed a focal point and involved the necessary stakeholders. Statements made in later parts of the questionnaire (Issues 8 and 9) however indicate that realizing all three means simultaneously has proven to be difficult.

24.   Although somewhat lagging behind in comparison to the EU/West, EECCA made considerable progress in the fulfillment of objective A (from respectively 58%, 57%, 50% in phase I to 77%, 63%, 57% in phase II) However, as in phase I, none of the EECCA countries (excluding Belarus that shows a completion of all sub-indicators) has economic

incentives installed to support ESD; Armenia mentions that the majority of projects on SD and ESD are realized by international organizations with the support of international donors. The answers of Moldova (no completions) show that the country is having difficulties to install the policy, regulatory and operational frameworks to support ESD.

25.   As pointed out earlier, only Croatia submitted a NIR from the SEE region on time which makes it hard to say anything meaningful about trends in the region as a whole. At the time of analysis, only a brief descriptive report by Serbia was available, which emphasised the importance of ESD at a national level, and makes mention of various National legal and strategic frameworks in which ESD is reflected (see also footnote 8). No mention is made of completion of the other indicators pertaining to Objective A.

26.   Although all the percentages appear very encouraging, one has to take into account that the countries that did not submit data on the indicators were not included in the calculation; consequently the percentages do not fully represent the actual situation.

27.   Despite the high response rate on the questions related to objective A, a waterproof comparison cannot be made as some countries that submitted data on the completion of this objective during the first phase did not hand in a report now (FYRM, Italy, Ukraine) and vice versa (Belarus, Belgium, Finland, Iceland, Israel and Switzerland).

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

28.   This objective of anchoring SD in formal, non-formal and informal learning encourages countries to raise public awareness of SD in and through institutions of formal education as well as communities, teacher training, workplaces, families, the media and NGOs. The three sub-indicators pertaining to this indicator are: The integration of SD themes, learning outcomes and corresponding methods. The general nature of all three is that they strive to be holistic and problem/action oriented. The latter means that education should contribute to the development of students' own competences to take action and to facilitate sustainable changes, as well as being structured around an existing problem, rather than a topic or discipline as is the generally the case in current education.

1.   SD key themes are addressed in formal education

29.   Relevant themes to be covered in formal curricula include among other things: poverty alleviation, citizenship, peace, ethics, responsibility in local and global contexts, democracy and governance, justice, security, human rights, health, gender equity, cultural diversity, rural and urban development, economy, production and consumption patterns, corporate responsibility, environmental protection, natural resource management and biological and landscape diversity.

30.   Countries were asked to specify which key themes of SD are addressed explicitly in the curriculum/programme of study at various levels of formal education. The answer of countries in this section shows that most key themes are largely addressed in all educational levels.

31.   At the closure of phase I the ministers of environment and education emphasized that countries need to develop a more integrative conceptualization of ESD to make the move from sectorial environmental education (emphasizing environment and ecology) to more comprehensive sustainable development (giving equal attention to environmental, ecological, socio-economic, ethical and cultural aspects). Although less salient than in the evaluation of the first phase, still the environmental component of SD largely prevails. As in phase I, the least attention is given to the economic conceptualization of SD: the topics 'Corporate Social Responsibility' and 'rural/urban development' are hardly ever mentioned

as being addressed in the curriculum. If these themes are covered at all they solely find a place in the higher ISCED levels.

32.   In the SEE region both, Serbia and Croatia, have integrated the social dimension of SD into their schooling systems. Yet Serbia clearly puts the emphasis on the environmental pillar of SD. Most programmes mentioned (on formal, informal and non-formal level) in their report are related to 'green' issues.

33.   The integration of SD learning outcomes also seems to be very well on the way. Throughout the UNECE region, most attention is given to a) overcoming obstacles/problem-solving, b) acting responsibly, c) self-expression and communication, and d) acting with respect for others. The learning outcomes least addressed in formal education are: a) managing change/problem setting, b) dealing with crises and risk, c) coping under stress, and d) acting with responsibility (locally and globally).

34.   The two sub-regions (EU/West and EECCA) follow largely the same pattern in outcomes that are most or least addressed. With one exception: the outcome 'participation in democratic decision-making' is rated lowest in the EECCA region and among the highest in the EU/West.

35.   Croatia reports to have integrated all methods on all ISCED levels. Serbia did not provide any information on this topic.

36.   The third sub-indicator (learning methods) has a very low response rate. Little can thus be said about the extent to which certain methods are employed in formal education. Most mentioned methods used to address SD are: simulations, role playing, games, excursions and outdoor learning; least frequent employed are: philosophical inquiry, good practice analyses. Again the differences between the EU/West and EECCA are small, with an exception for the method 'workplace experience', a method that is hardly used in EECCA countries.

2.   Strategies to implement ESD are clearly identified

37.   To integrate SD themes, educational institutions can follow different approaches. The UNECE Strategy differentiates between five of them: (a) integration in existing subjects only, (b) a cross-curriculum approach, (c) the provision of specific subject programmes and courses, (d) a stand-alone project, and (e) a whole-institution approach.

38.   In phase I there was a slight difference between EECCA and EU/West countries in that the former tended to focus more on integration of ESD issues within existing subjects, whereas the latter followed more on a cross-curriculum approach. This difference seems to have faded: across the entire UNECE region SD/ESD is mostly addressed through a cross-curriculum approach, followed by the provision of specific courses and as a stand-alone project.

Whole-Institution Approach

Example from Finland	Example from Israel
All schools are required to draw up a SD plan by the end of 2010. This plan must contain the following: implementation of ESD, account on how the school will change its operations and everyday activities so that these correspond to the targets set in the plan as well as who is responsible for the implementation. A national ESD strategy is available on a website. Most institutions of higher education have established their own action plans for sustainable development, including the dimensions of education, research and other activities. They also have appointed environmental coordinators for the whole institution. These persons also promote ESD, as an integrated part of their job. Furthermore, a set of criteria has been developed to help schools evaluate their activities and progress regarding SD and help them apply for a SD certificate. A national target is that 15 % of schools will have a SD certificate or the international Ecoschool Green Flag by 2014.	*Israel instituted a certification process to provide educational institutions with a Green Certificate. The certificate is provided through an inter-ministerial judging committee. The criteria involve instituting a sustainable life style in the school, re-cycling, reduction in the use of resources. There are presently 55 certified kindergarten and primary and primary schools (from a total of 5,000 kindergarten and 1,600 Primary Schools); 480 Junior High Schools (from a total of 800).* *The requirements for certification include (1)Having a sustainable life style that includes reduction of waste, recycling (2) Curriculum with at least30 hours on ESD (3) Instituting a Green Council composed by the students (4) Activities and connections with the wider community in promoting the Green agenda. The program also provides a Permanent Green Certificate that requires more extensive compliance with the basic criteria. There are presently 200 institutions undergoing the final stages of this permanent certification. All these certification procedures are based on hard data and concrete results.*

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39.   Sixty-three percent of all countries say to have adopted a "whole-institution approach" which tends to refer to the simultaneous infusion of sustainability in a school's curriculum, reduction of its institutional ecological footprint, strengthening students 'participation, and improving school-community relationships . In phase I only 30 per cent of EU/West countries said to have developed this approach; at the present time this figure is 74%; a striking progress. The EECCA sub-region however did not advance in this respect: the amount of countries that has adopted this strategy stagnated at two.

40.   The number of countries that provides incentives that support a whole-institution approach equally increased in the EU region from 20 % (2007) to a current 50%. The "Green Flag" Scheme, an international award scheme for 'eco-schools', used by many countries to provide incentives, as well as other awards and certificates (Greece, Armenia, Hungary, Austria). In many cases there are (partly) funded by public authorities. Incentives are also given in the form of knowledge support.

Incentives for whole-institution approach

Example from Cyprus

> *In supporting schools to adapt to "a whole institution approach to SD/ESD" the Cyprus Pedagogical Institute has established an environmental pedagogical team which is working explicitly to create a supporting guidelines tool for schools in order to help them organize their School Unit on the base of "a whole institution approach". That tool is a comprehensive package which includes: a) the framework for schools to organize the school environmental and develop a sustainable policy, b) the key-themes of SD and the anticipated learning outcomes, the c) the way that non-formal and informal education can be used in conjunction with the learning process that are implanted in school, d) the didactic techniques and pedagogical approaches, with indicative examples, that can be used in the school setting and outdoors, e) the indicators for students, teachers and class evaluation and f) the indicators for school progress report (including campus, curriculum and community work). This educational package is under preparation.*

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41.   The final topic in this section addresses the question whether institutions/learners develop their own SD/ESD indicators for their institution/organization. A UNECE expert group created the set of ESD indicators that are used for the NIR, which –as stated at the Belgrade Conference- is valued as an innovative tool. Besides the use of the existing SD indicators, governments and schools are encouraged to develop their own set of indicators adapted to fit their local context. The development of context-specific SD indicators is in itself seen as an ESD exercise. However, less than half of the countries who submitted a NIR say that institutions/learners develop their own indicators and only a few extensively explain how this is done. Finland refers to the autonomy of schools; they can therefore develop their own indicators if they wish to. In Sweden and other nations NGOs seek to support schools to develop their own indicators.

3.   Quality assessment/enhancement criteria

42.   The UNECE Strategy for ESD underlines the importance of the availability and use of adequate monitoring and evaluation mechanisms for strengthening the implementation and quality of ESD. Most countries indicate that education quality assessment/ enhancement systems are installed; far less however have systems that actually address ESD. Moreover, this indicator seems hard to evaluate, since the way education is assessed on a national basis varies significantly among countries. Yet various examples are given that point at a promising progress compared to phase I. Armenia is using the international quality criteria testing list developed by the World Wide Fund For Nature (WWF) to assess the value of environmental education programs. The Netherlands in this respect describes an internal peer reviewing method of educational material in the form of a wiki[9] on the internet.

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[9] A wiki is a website that allows the easy creation and editing of web pages by anybody.

Quality assessment/enhancement systems

Example from Slovenia

Schools that educate for sustainable development have accepted quality criteria as a key element of their mission and school curriculum. To do so they use the Quality Criteria for ESD-Schools – Guideline. The criteria are divided in 3 main groups, with corresponding sub-fields:

1.   Criteria for the teaching and learning processes

(a)   teaching-learning approach

(b)   visible outcomes at school and in local community

(c)   perspectives for the future

(d)   'culture of complexity'

(e)   critical thinking and the language of possibility

(f)   clarification and development

(g)   action-based perspective

(h)   participation

(i)   subject matter

2.   Criteria regarding school policy and organisation

(a)   school policy and planning

(b)   school climate

(c)   school management

(d)   reflection and evaluation of ESD initiatives at school level.

3.   Criteria regarding the school's external relations

(a)   community cooperation

(b)   networking and partnerships

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

43.   *Non-formal learning* takes place outside and sometimes parallel to mainstream systems of education and training, and does not typically lead to formal certificates. Non formal learning here usually refers to training programs or courses taking place outside of formal education institutions for example in workplaces, neighborhood centers, museums, art events, youth networks and so on. *Informal learning* is a natural part of everyday life. Unlike formal and non-formal learning, informal learning is not necessarily intentional learning, and as such may not even be recognized by the individuals themselves as contributing to their knowledge and skills.

44.   Almost all countries have SD addressed in informal/public awareness-raising activities. Various countries state that activities are abundant and that sustainable development has increased in visibility over the recent years. A random selection of examples, topics, media and methods used:

(a)   Electronic newsletters send out by governments/NGOs

(b)   Green items in newspapers

(c)   Public conferences and events

(d)   Magazines specifically dealing with issues related to the environment or SD

(e)   The European/ international environmental calendar is celebrated: activities take place on the days of International Day of Biodiversity, International Environmental Day, Earth Day, Wetlands Day

(f)   Awareness campaigns on climate change

(g)   Campaigns against use of plastic bags

(h)   Museums organize events

(i)   Activities in the European mobility week to promote sustainable transport

45.   Equally work-based learning with regard to sustainability is taking place in many professions. Some examples include:

(a)   Training programmes for engineers through which they become accredited to issue energy efficiency certificates for new buildings.

(b)   Public business development programs that support initiatives for gender equality, integration of handicapped people or integration of unemployed elderly people in order to prevent poverty.

(c)   Courses in the area of construction: sustainable building.

(d)   In the field of agriculture: courses to expand local agricultural knowledge, develop ecological tourism, share agricultural practices knowledge and develop organic agriculture.

(e)   Workshops for forest owners on sustainable forestry and nature protection.

(f)   Trainings on sustainable investment for entrepreneurs.

Work-based learning for sustainability

Example from Croatia	Example from Poland
The Green office is a series of motivational-educational workshops for civil servants with the aim to teach them how to reduce negative impact on the environment through their daily work. 1110 educational workshops are planned to be held for 3000 civil servants in 2010)	*The information campaign promoting the Community Eco-Management and Audit Scheme (EMAS). Its aim is to promote the importance of this scheme and potential thereof in making aware choice of good products and services provided by the companies who have implemented EMAS, and thus acknowledged their willingness to reduce their ecological footprint, including abatement of their adverse environmental impact. The Campaign is thought to making both the entrepreneurs and the business circles in general prone to accessing this scheme, since it secures introduction of new and innovative commercial quality.*

46.   Only a few countries also have instruments in place that assess the outcomes of ESD as a result of non-formal and informal learning, yet some examples are given: (regular) nationwide surveys to examine the environmental awareness of citizens, the counting of participants of certain environmental programs.

Assessing the outcome of non-formal and informal learning

Example from Estonia

> *The Ministry of the Environment orders once in every two years a poll "Environmental awareness of residents of Estonia". 89% on residents of Estonia consider themselves as environmentally aware, but the same time they consider that others are not or rather not aware (2008, 2010) The poll also revealed that usually people save water and electricity and sort garbage in households because of economic reasons not because of environmental awareness. 40% of Estonian residents find waste management the most vital environmental issue. Estonians consider that vulnerability of the Baltic sea is a serious problem and that pollution of Baltic sea has to be reduced. The most often used medium to get information about environment is TV, also local newspapers are important information-sources.*

5.   ESD implementation as a multi-stakeholder process

47.   According to the Strategy, ESD requires multi-stakeholder cooperation and partnership. The main actors include governments and local authorities, the education and scientific sectors, the health sector, the private sector, industry, transport and agriculture, trade and labour unions, the mass media, non-governmental organizations, various

communities, indigenous peoples and international organizations. Furthermore, governments should strive to increase cooperation and partnerships among members of the educational community and other stakeholders.

48.   Most of the countries indicate that there are many stakeholders involved in the implementation of ESD (following the UNECE classification). This is a positive development compared to the first evaluation, in which hardly any country provided data to this question. From the data it is difficult to gain a deeper insight in how these multi-stakeholder processes are organized and facilitated but where the phrase multi-stakeholder cooperation appeared somewhat unknown and unclear in phase I, this appears less the case in phase II.

E.   Competence within the education sector

49.   The competence objective of the Strategy refers, in the context of education, to the capacity of formal education educators, educational leaders and decision makers to integrate SD into the curriculum. The Strategy therefore states that competence-building efforts are necessary at all levels of both formal and non-formal education. In the evaluation of Phase I, however, the development of competence within the education sector proved to be one of the major bottlenecks in the successful implementation of the Strategy. Many countries (especially in the EECCA and SEE sub regions) indicated that the implementation process is hindered by a lack of ESD competencies among staff.

50.   To realize this objective, the Strategy recommends that ESD is included in the training of educators (both in the initial and in-service educators' training, as well as in the training of leaders and administrators of educational institutions) and the provision of opportunities for educators to cooperate on ESD.

ESD is included in the training of educations % of countries ticked "yes" to the question whether ESD is part of teacher training				
	EECCA	*EU/West*	*SEE*	*Total*
Initial Training	57%	79%	Croatia: no	74%
In-service training	57%	96%	Croatia: yes	93%
Training of leaders and administrators	57%	64%	Croatia: yes	62%

51.   The table shows that -like in phase I- most ESD training is given in-service. There seems to be a noticeable progress compared to the first evaluation as almost all EU/West countries indicate that ESD is part of the in-service training of educators. Most countries list networks and platforms of educators and/or leaders/administrators involved in ESD, but hardly ever are these supported by the government.

F.   Tools and materials

52.   The UNECE Strategy for ESD also refers to the requirement to develop appropriate materials for ESD at all levels. These should be adapted to the local conditions and needs. Key actions to achieve this could be to stimulate the development and production of materials for educators, learners and researchers for all levels of education and training; encourage the development and use of electronic, audio, video and multi-media resources and visual aids; facilitate access by electronic means and the Internet to resources and information relevant to ESD; and develop relevant dissemination strategies.

53.   The sub-indicators pertaining to this issue cover the production of teaching tools and materials for ESD, the development of quality control mechanisms and ensuring that the tools and materials are accessible.

54.   With regard to the development of tools and materials stark differences exist between the two sub-regions. The answers of EECCA countries show that none to very little activity is currently being undertaken in this field. Only Kazakhstan and Uzbekistan seem to be advancing in the attainment this objective; the latter confirming to have ESD teaching materials available through the internet.

55.   Conversely, EU countries are moving forwards considerably in all sub-indicators of this objective. 74% seem to have a national strategy/mechanism for the dissemination of ESD tools and materials (compared to one third at the end of phase one of the strategy). 82% of the countries in this sub-region even invest money in this activity. In the EECCA sub region none of the Governments provide such funds: the development of ESD tools and materials is still entirely organized by foreign investors and organizations.

56.   Only 42% of the EU/West countries confirm to have installed a national strategy that safeguards the dissemination of ESD tools; many countries however explicitly mention that dissemination is taking place through informal networks, though not formally organized by authorities. There is also some money invested in these activities.

G.   Research and development

57.   The Strategy states that research that might contribute to ESD should be encouraged. There is a need for increased cooperation and partnerships between stakeholders in research and development activities, ranging from identifying issues to working with new knowledge and making it known and used. The results of research and development efforts should be shared with actors locally, regionally and globally, and be incorporated into different parts of the education system, experience and practice.

58.   Comparing the current data on this objective to the findings of phase I, we can conclude that countries made considerable progress. Where the first report stated that little was done in this field, now 68 % of the countries support research that addresses the content of ESD. However, still relatively little research is done to evaluate the outcome of the implementation of the UNECE Strategy for ESD.

59.   Croatia indicates that there is little activity currently in the development of research in the field of ESD/SD.

60.   Where in the previous evaluation countries hardly mentioned any post-graduate programs on/addressing ESD, the amount in this field seems to have increased considerably. However, some countries include programs that do not target SD/ESD directly but cover conventional environmentally related subjects, such as biology or environmental management.

Research that evaluates the outcome of the implementation of the UNECE Strategy

Example from Germany

> *In 2007, a project started examining the effects of the Federal Government/State Commission of Educational Planning (BLK) project "Transfer 21" at teacher, school and system level as well as on teaching methods and cognitive attributes of pupils through transfer research. Another project was dedicated to evaluating the measures of the National Action Plan and the Official DESD Projects. Furthermore, in an international project together with Switzerland and Austria, German universities are working on an interdisciplinary project to develop indicators for ESD. A study commissioned by the Federal Ministry of Education and Research has been looking at deficits and potentials of ESD research in Germany.*

61.   Likewise the number of scientific publications listed increased significantly, with many countries giving extensive references. Yet, only 58% of the countries report to have a public authority support mechanism installed to share the results of research and good practices in ESD among authorities and stakeholders. This is also reflected by comments of countries with regards to the challenges they are facing; many countries recognize the need to distribute ESD practices and examples more intensively among teachers, administrators and others involved.

H.   ESD cooperation

62.   Cooperation between countries both within and outside of the UNECE region is encouraged for two reasons. Firstly because this is in line with the aim of SD: cooperation creates mutual understanding, strengthens trust and develops respect for cultural values, thereby building friendly relations between peoples and nations and contributing to peace and wellbeing. Secondly, given the high diversity and wealth of knowledge and experience that the region holds, international cooperation and exchange facilitates the development of national and local initiatives. Although there are vast environmental, cultural and economic differences between countries, their needs and education systems, there are extensive opportunities to learn from and with each other towards SD.

International cooperation on ESD is strengthened within UNECE region and beyond % of countries that ticked "yes" to the questions				
	EECCA	EU/West	SEE	Total
Cooperation is/ support of authorities in international networks	83%	91%	Croatia: Yes	90%
Participation of educational institutions in international networks	100%	100%	Croatia: Yes	100%
State, bilateral, multilateral cooperation/ mechanisms with ESD component	43%	65%	Croatia: Yes	61%
Government takes steps to promote outside ESD region	0%	57%	Croatia: Yes	47%

63.   The table above shows that, like in Phase I the cooperation between UNECE countries is rather high; both between governmental and educational institutions. The cooperation mainly consists of international conferences, networks, (digital) forums and partnerships in programs.

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

64.   ESD should foster respect for and understanding of different cultures and embrace contributions from them. The role of indigenous peoples should be recognized and they should be a partner in the process of developing educational programmes. Traditional knowledge should be valued and conserved as an integral part of ESD. Raising awareness of the potential contribution of indigenous and other local knowledge should be given attention.

65.   As the response rate on this issue was strikingly low in the previous evaluation, it was emphasized that countries should give attention to raise awareness of the potential contribution of indigenous and other local knowledge while implementing the Strategy.

66.   Like in 2007, little data is given regarding this objective. This seems to result from the fact that many countries do not have an indigenous population, but it also shows that this issue still has a low priority.

67.   There is however a slight increase in the number of examples provided by some countries. In the EECCA region, Kazakhstan mentions the introduction of a brochure on traditional approaches to energy-saving; Belarus developed a program that consists of the creation of a number of centers and initiatives designed to keep and broaden local and traditional knowledge (e.g. a school of weavers, a program about village crafts, the revival of traditional rites, festivals and crafts.); in Kyrgyzstan traditional local knowledge on ESD is transferred through the Kyrgyz epos 'Manas' which is regarded as "a masterpiece of oral national creativity".

68.   In the EU/West sub-region Poland created an eco-museum network that "seeks to draw out the history and tradition of a place by presenting it in an active and interesting way. (…) Both heritage protection and economic benefits for local people are assured." Sweden is one of the few EU countries to have indigenous people, the Saami. In formal education a number of possibilities are said exist to organize schools with Saami "profile", supported by the municipality. The Saami people also have their own folk high school. Furthermore, in December 2005 the Swedish government launched Naptek - a national programme on local and traditional knowledge concerning the conservation and sustainable use of biological diversity. The Netherlands has chosen an unconventional new approach to the notion of 'indigenous peoples' by referring to the Dutch multicultural society: "People who originate from other cultures and beliefs are invited to participate more in all sorts of activities, mostly by an active and more diverse (out-of-the-box) ways of inviting stakeholders and/or participants." Slovenia similarly refers to successful projects integrating immigrants including an award winning project fostering the integration of the Roma people.

III.   Challenges in Phase III

69.   This section incorporates the data provided with respect to the issue of how to foster conservation, use and promotion of indigenous knowledge in ESD (issue 8) and of identifying the kind of assistance that is needed to implement ESD further) of the NIR (issue 9). These answers to the associated indicator areas have descriptive value in understanding bottlenecks and levers in the overall implementation of the Strategy. On basis of these points, recommendations were developed that have been included in the closing chapter of this report.

A.   Challenges in EECCA sub-region

70.   The following challenges were specifically mentioned in the 7 NIRs submitted by the countries of the EECCA sub-region:

(a)   ESD topics lose their priority status among most donors;

(b)   Financial resources are lacking to permit further progress and completion the UNECE Strategy for ESD

(c)   Political instability hampers the implementation process

(d)   Lack of successive prioritization of ESD at decision-making level

(e)   Lack, insufficient and/or difficult communication between involved ministries

(f)   Frequent change of the administration

71.   The following assistance needs were given:

(a)   Technical and financial support for the development of a system of evaluation/improvement of the quality of education, which includes criteria concerning ESD

(b)   Support for scientific research on ESD

(c)   Financial support for the development of methodical manuals on ESD

(d)   Development of programs to share experiences among countries and reinforcing the interaction with other regions and countries, such as national conferences on ESD at various universities with the participation of all the stakeholders and NGOs working in the education system on ESD.

(e)   Advice of foreign experts and delivery of successful examples of ESD methods

(f)   Support in the development of a whole-institution approach (e.g. EcoSchools and eco-centers).

B.   Challenges in EU/West sub-region

72.   Most countries in the EU/West region gave a useful description of challenges that they face regarding the implementation of the Strategy and corresponding assistance they require in order to advance the implementation process. These points have been integrated and categorized in order to create a comprehensive list of challenges that currently exist in the region.

C.   Lack of implementation mechanisms

73.   Despite the fact that countries have made considerable steps in moving the Strategy from the political to the practical domain, various countries (Slovakia, Germany and Switzerland) mention that they are facing difficulties with regard to the actual implementation of the Strategy in formal, informal and non-formal education. Germany refers to this as: "On the concrete level of ESD integration, finding an adequate and enduring way for ESD integration in the curricula still remains one of the major challenges." and "ESD is still being perceived as an add-on to the curriculum and not as a cross-cutting principle." In order to solve this impediment it advises to: "clarify how ESD can contribute to the increase of overall educational quality." Likewise the Czech Republic refers to the need to adopt ESD within institutions of formal education.

D.   Lack of awareness on different levels

74.   As briefly referred to in Chapter I, although the importance of ESD is increasingly acknowledged, there is still a major lack of awareness of ESD; both at the level of decision-makers (Slovakia) and in society as a whole. Austria states in this regard that there is "a lack of simplest principles of ESD among university teachers." As a consequence there is an overall shortage of institutional and financial support and insufficient human resources on the governmental level to further implement the ESD Strategy.

E.   Low involvement of stakeholders

75.   Despite the Strategy's emphasis on the participatory nature of ESD and the need to involve multiple stakeholders in its implementation and evaluation, it remains a challenge to involve all stakeholders in and find suitable partners for the process. This in a way contradicts countries' scores regarding objective B5 which focuses on the implementation of ESD as a multi-stakeholder process. Switzerland for this matter refers specifically to non-governmental stakeholders, who are said to be vital, but currently not involved in the core decision making process. Related to this point, various countries (Finland, Germany, Austria, Slovenia) express the need to develop more intensive cooperation between parties.

F.   Ineffective communication between ministries

76.   Communication between ministries seems complicated and ineffective in many cases. Slovakia for example states that the Ministry of Education and Ministry of Environment have difficulties to agree where and how to appoint the national focal point. In the Czech Republic, there are said to be "institutional confusions related to competences within ESD."

G.   Unfavorable political and financial climate

77.   Several countries (such as Switzerland, Czech Republic, Belgium and Finland) refer to the current political climate as one that rejects ESD-integration into the education system. For example, Switzerland contends that although SD and ESD have been supported and confirmed various times as expressing leading principles, it is still a politically sensitive issue that might receive lower priority in economically difficult times.

H. Impeding national education structures

78.   Educational structures vary considerably among the different countries and sub-regions. Some countries assert that their particular system hampers the development of ESD. In other countries the a-polictial (i.e. education is to be value free/neutral) and "transboundary" nature (i.e. involving multiple disciplines and multiple forms of learning) of the ESD Strategy does not fit the philosophy of the national education system which tends to be based on compartmentalized fields of knowledge and inquiry. Sweden states: "ESD is sometimes perceived as a politicized concept which collides with the independence of higher education and therefore meets resistance." The Dutch educational system is based on freedom of education meaning that "the National Curriculum only covers main topics and outlines that individual schools have a lot of individual freedom to decide about content and pedagogical approaches for their programs. (…) Although most schools endorse the importance of ESD, the embedding in the national curriculum is a challenge."

I. Fragmented coordination and lack of dissemination

79.   The national approach to SD is often said to be fragmented. There seems to be a need for mechanisms to exchange information between projects and initiatives at country-level. Often there is a wide range of organizations involved in initiating and implementing numerous ESD-related projects and initiatives in formal, non-formal and informal settings but there is no knowledge infrastructure, authoritative database or information network that links these projects, initiatives and organizations. The lack of such a structure makes it difficult to share lessons learnt and to create synergies. The Netherlands for example asserts that the coordination and management of all the small initiatives is a weakness. It is said that a strategy is needed to bundle the different small initiatives. Likewise, Switzerland, Sweden and Cyprus refer to coordination difficulties among various bodies.

J. Conceptualizing the holistic nature of ESD

80.   Various nations encounter challenges in conceptualizing the trans-disciplinary, holistic nature of ESD. Switzerland: "The involved institutions find it difficult to overcome the fragmentation into different subjects, which the trans-disciplinary approach of ESD requests." This poses problems with regard to the source of funding or the selection of a main coordination body, which again hampers the overall coordination of the implementation process. The Netherlands and Belgium specifically mention the social criteria within the Strategy, as they are hard to describe or translate into teaching material or project plans. "For technological and financial projects this is easier and so they get priority, also because they are easier to measure and monitor."

K. Lack of long-term planning

81.   Now that we are halfway through the implementation period, some countries (e.g. Switzerland, Cyprus) are also looking further ahead: there seems to be a general lack of long-term planning (beyond 2015). Consequently there is a worry that all the accumulated endeavors will collapse after the completion of the Decade.

L.   'Obscurity' of the term ESD

82.   Finland, Sweden, the Czech Republic and Austria refer to the general confusion about the meaning, form and denotation of ESD. Finland summarized this impediment as: it is "difficult to find resources and support for ESD as the term is seen as obscure. Clearer cut topics find more funding but that is in a way against the holistic nature of ESD." Austria refers to SD and ESD as being "abstract". The Czech Republic and Sweden mention that there is confusion among terms and strands of ESD: "Due to the encompassing definition of ESD, it is often difficult to assess which activity or project is ESD and which is merely Environmental Education, Development Studies or Gender Issues." In relation to this point, there is a tendency to understand ESD simply as 'good education' (Austria). Answers to questions in the NIR likewise show that many components of ESD are understood differently by countries and even within countries.

M.   Funding

83.   Like in phase I, the allocation of financial resources for completion and further progress of the Strategy remains an obstacle (among others: Croatia, Czech Republic). The on-going economic challenges which affect different UNECE countries in different ways, have generally not resulted in the cutting of funding for ESD which suggests that there is some resilience with regard to ESD. At the same time countries express some concern about long term government commitment to ESD if economic stress continues to determine political agendas in the coming years.

IV.   Conclusions and recommendations

84.   Thirty-six countries submitted a National Implementation Report. This figure was the same as in the previous evaluation phase. We can conclude thought that t**he same high percentage of countries as two years ago is actively engaged in the implementation of the UNECE strategy**. There is also evidence that countries that did not report in this round or did not report using the agreed upon format are active in the implementation of the UNECE Strategy for ESD. This suggests that the percentage might be higher than two years ago although back then this might have been the case as well. Perhaps the more striking difference is that **the quality of the reports was notably higher: the NIRs are more complete and contain more descriptive data such as examples and explanations.** This does seem to indicate that ESD has gained more prominence.

85.   As there is a continued call for 'evidence' that ESD works in terms of changing learning behavior, lifestyles and the way institutions and (business) organization work*, continued attention for the development of appropriate monitoring, evaluation and indicator schemes will be needed as will be the support of related ESD-research.* When such schemes are in place and evidence becomes available that ESD indeed leads to more sustainable ways of living, working and doing business, then this is likely to propel ESD further. In sync with the implementation processes taking place in the context of the UNESCO coordinated UN Decade of ESD, countries endorsing the UNECE Strategy appear **to be progressing in their efforts to implement ESD in formal, non-formal and informal learning contexts.** The majority of countries has accomplished or is close to accomplishing objective A which focuses on the creation of policy, regulatory and operational frameworks that support ESD. Over the past years governments have evidently put effort in installing the necessary frameworks. The topic of ESD is said to receive increasing attention, but is often still not regarded as a top priority among administrators (at political, and formal/ informal/ non-formal education level). The turn in the economic

situation in some, if not all, the member states, has put some strain on the implementation process but even though the priorities may have shifted somewhat, ESD implementation has not come to a grinding halt but appears to move forward. *Nonetheless there is a continuous need for further strengthening and securing political commitment on national and international level.* To help governments adopt a long term perspective and to assure successful implementation of ESD beyond 2014, *the UNECE might want to develop an ESD 2020 Strategy that expands the horizons and shows an inspiring long-term commitment to ESD.*

86.   **Countries are clearly shifting their attention from the political to the practical**: i.e. they are putting the Strategy into action. That is: ESD is increasingly addressed in formal, non-formal and informal learning by means of whole school approaches, work-placed learning, sustainability-oriented community events, the formation of new networks and so.

87.   However, many countries also contend that although increasing, activities are still sporadic and do not usually move beyond the grass-root level to affect and inspire others. *More synergy, networking and coordination is needed to achieve the up scaling of ESD from the margins to the mainstream.* Such up scaling likely requires additional financial and human support.

88.   Despite the focus on the development of ESD competences, tools and materials in the education section, various countries indicate that they are facing difficulties in realizing this objective. There is a need for distinction between SD-competence (e.g. citizen's capacities to contribute to sustainable living both professionally and personally) and ESD-competence (e.g. an educator's capacity to help people develop SD-competence through a range of innovative teaching and learning practices). *Better articulation of such competences is likely to help in designing and supporting professional development strategies that could strengthen such competences.* The work of the UNECE expert group on ESD competences could prove to be crucial in this respect. ESD-related teacher training programs should take advantage of the new insights obtained in relation to ESD competences.

89.   **Serious attempts are being made to integrate ESD in formal education, resulting in a considerable coverage of ESD related key themes, learning outcomes, methods and strategies.** However, many countries report to face difficulties in this respect; as well as with developing and disseminating ESD teaching methodologies and materials.

90.   **The adoption of a whole-institution approach advanced remarkably in the EU/West sub-region.** Although there are different interpretations of such an approach most countries that provide description tend to emphasize a broad interpretation of SD (to include as a minimum the ecological, environmental, socio-economic), focus on both the culture of the institution in terms of addressing sustainability in the educational processes taking place in the institution, and, finally, in emphasizing the reduction of the ecological footprint of an institution and of the community of which the institution is part. *Some of the member states call for mechanisms that support the successful dissemination of teaching methods, materials, campaigns and experiences in the field of SD.* Likewise   the international exchange of teaching materials, ideas, experiences, quality assessment systems and indicators in the field of ESD should be encouraged.

91.   Generally speaking **ESD activities in informal and non-formal learning are expanding successfully**. It should be noted in this respect that many of the reported initiatives are 'cross-boundary' in nature as they blend formal, informal and non-formal learning and tend to involve multiple actors, groups, organisations and networks. This cross-boundary nature poses new challenges for facilitators of ESD as they will have to play an important mediating, linking and catalysing role within such cross-boundary ESD

learning configurations (e.g. different actors, organizations working together on ESD in an organized way). Governments can support ESD educators by stimulating the creation of 'learning environments' at the societal level: creating spaces where ESD practitioners meet, learn from each other, join forces and strengthen their individual activities. Along this, *mechanisms need to be in place that ensure the effective involvement of stakeholders from all levels and fields of society in the decision-making process*. At the same time *the mapping and sharing of existing practices in informal and non-formal education needs to be continued and expanded.*

92.   Many countries observe that **the visibility of SD issues has increased considerably in media**. Often times this visibility is connected to prominent sustainability issues such as: loss of biodiversity, the depletion of natural resources, the rise of unnatural disasters, human-induced climate change, marine toxicity, and rising inequity. **The amount of research done in the SD- field has also increased** in comparison to Phase I but it needs to be stressed that SD-research is not the same as ESD-research. *Research on ESD and its effects remains relatively marginal and will need to be upgraded in the coming years*.

93.   In the light of the achieved progress that governments committed to during Phase II ("Start integrating SD into learning programmes and curricula, review progress made in the implementation of the national strategies and revise these strategies if necessary.") it can conclude that the fulfilment of the Strategy is well on the way. There is no evidence that strategies are being revised in light of on-going societal changes such as the financial recession affecting many countries or the exponential growth of people participating in the digital age using information and communication technologies.

94.   In order to further advance the execution of the Strategy, there is **a need to *connect* the considerable amount of effort and number of initiatives that are taking effect on both political and local executive levels.** Focusing too much on the first might limit the potential of the Strategy as it will lead to a gap between policy and practice. Leaving the emergence of ESD to societal actors in schools, communities, NGO's and CSO's is important but needs to be supplemented with the fostering of synergies, coordination and structural anchoring of ESD, if ESD is to become more mainstream. The challenge for Phase III therefore lies in strengthening intersectoral (e.g. different Ministries working together) policy frameworks, while at the same time not neglecting the currently 'booming' attention for the topic in society, which is taking form through the many small-scale and separated activities from teachers, schools, NGOs, youth, citizens, museums, newspapers, companies, parents, celebrities and researchers. In short, *countries should take advantage of the increased attention to sustainability by anchoring ESD in inter-sectoral policy frameworks*.

95.   The continued *articulation of the meaning of ESD competence will be helpful in strengthening ESD professional development*. Some elements of such competence have already been identified (e.g. forward thinking, systems thinking, interdisciplinary thinking, empathic thinking, the ability to switch perspective temporally, spatially and culturally, etc.) but will now *need to be operationalized in ESD competence development programs* in the years to come.