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Progress by member States in implementing the UNECE ¹ Strategy for Education for Sustainable Development

Learning from each other: achievements, challenges and ways forward

Second evaluation report of the UNECE Strategy for Education for Sustainable Development, synthesizing national implementation reports by States members ²

Summary

The present document synthesizes the outcomes of 36 national implementation reports, prepared by member States of the UNECE Strategy for Education for Sustainable Development. This first mandatory reporting cycle was carried out in accordance with the workplan of implementation for phase II of the Strategy (2008–2010), which set out the timeline for the reporting exercise in 2010 (ECE/CEP/AC.13/2008/5, part C, paras. 29–34, and annex II). The reporting was done on the basis of an agreed reporting format (ECE/CEP/AC.13/2009/10). To facilitate the reporting process, the Expert Group on Indicators prepared a comprehensive indicator-based "Guidance for Reporting on the Implementation of the UNECE Strategy for Education for Sustainable Development" (ECE/CEP/AC.13/2009/5).

The national implementation reports revealed that countries endorsing the UNECE Strategy are progressing in their efforts to implement education for sustainable

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¹ The United Nations Economic Commission for Europe (ECE) is sometimes abbreviated as UNECE to avoid confusion with other regional bodies.

development (ESD) in formal, non-formal and informal learning contexts. The majority of countries have accomplished or are close to finalizing and putting in place policy, regulatory and operational frameworks that support ESD. Serious attempts have been made to integrate ESD into formal education, resulting in a considerable coverage of ESD-related key themes, learning outcomes, methods and strategies. Also, the adoption of a whole-institution approach has advanced remarkably in the European Union and other countries from the Western European and Others Group (Canada, Iceland, Israel and Norway). Countries are now clearly shifting their attention from the political to the practical: i.e., they are putting the Strategy into action. Over the run of phase II, the visibility of sustainable development issues has also increased considerably in the media and the amount of research done in the sustainable development field has grown. Generally speaking, ESD activities in informal and non-formal learning are expanding successfully.

According to the national implementation reports, the main challenges include the need for improved communication between relevant ministries and the design of intersectoral programmes. Moreover, there is a need to support the further development of a whole institution approach and to clarify how ESD could contribute to the increase of overall educational quality. In addition, awareness among decision makers and tertiary educators should be raised.

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I. Introduction

1. Recognizing the global importance of education for sustainable development (ESD), environment and education ministers of United Nations Economic Commission for Europe (ECE) member States adopted the UNECE³ Strategy for Education for Sustainable Development (CEP/AC.13/2005/3/Rev.1) 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 Education for Sustainable Development: taking stock

- 2. The aim of the Strategy is to encourage ECE member States to develop and incorporate ESD into their formal education systems in all relevant subjects, as well as in non-formal and informal education. The Strategy's overall objective is to equip people with sustainable development knowledge and skills, 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;
 - (f) Strengthen cooperation on ESD at all levels within the ECE region.
- 4. Furthermore, the Governments committed to achieving progress in implementing ESD within the ECE framework distinguished three phases:
- (a) Phase I (until 2007): take stock of existing activities, implement initial measures, and define priorities for further activities;
- (b) Phase II (until 2010): start integrating sustainable development into learning programmes and curricula, review progress made in the implementation of the national strategies and revise these strategies if necessary;
 - (c) 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

³ ECE is sometimes abbreviated as UNECE to avoid confusion with other regional bodies.

corresponding indicators and sub-indicators structured in a grid⁴ to allow countries to answer questions posed in a "yes/no" section, as well as provide explanations and examples in a descriptive part. The completed evaluation form then is considered to be that country's National Implementation Report (NIR).

- 6. The indicators and the reporting mechanism are not meant to compare States' performance; rather, it is hoped that the process will 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 subregions in moving forward.
- 7. The results of the evaluation of phase I were presented at the Belgrade Conference⁵ 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 report (ECE/BELGRADE.CONF/2007/9). While noting that most countries had shown their commitment to establishing the necessary policies and institutional structures to implement the Strategy, the Chair also noted some shortcomings and challenges, including the need for a stronger partnership between authorities and stakeholders and among different departments as well as the promotion of competences for ESD important preconditions for enhancing implementation.

B. The data

- 8. The present evaluation is entirely based on the NIRs submitted to the secretariat by ECE member States. Out of the 56 ECE countries, 55 support the Strategy. Thirty-six countries⁶ delivered an NIR, of which four⁷ 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 regard to reliability, as they contained inconsistencies in their answers.
- 10. From the South-Eastern Europe (SEE) subregion, only Croatia submitted an NIR on time. So, although listed separately in all tables and figures throughout this document, the information provided on SEE here can by no means be taken as representative for the entire subregion.⁸ In addition, Canada did not complete the yes-no part of the questionnaire in time for analysis, and therefore no quantitative data could be derived. For the foregoing

⁴ See "Guidance for reporting on the UNECE Strategy for Education for Sustainable Development", ECE/CEP/AC.13/2009/5.

Sixth "Environment for Europe" Ministerial Conference (Belgrade, 10–12 October 2007), ECE/BELGRADE.CONF/2007/INF/3–ECE/CEP/AC.13/2007/2.

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, Netherlands, Norway, Poland, Republic of Moldova, Romania, Serbia, Slovakia, Slovenia, Sweden, Switzerland, Turkey and Uzbekistan.

Canada, Denmark, France and Serbia.

The Serbian NIR arrived while the present report was being written, but was too late to be included. However, the full Serbian report is available for review online on the ECE website (http://www.unece.org/env/esd/implementation.html) as are the other NIRs that have been submitted.

reasons no sound comparisons could be drawn concerning major trends among subregions, as was done in the first evaluation report. Where possible, the present report highlights differences and similarities between the subregions.

C. Structure of the report

- 11. Chapter I of the second evaluation report 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 chapter I logically follows the six Strategy objectives (A-F). Where possible, concrete examples of activities and ways in which countries fulfil the objectives are given. These are mostly directly taken from the NIRs and slightly adapted to improve readability. In the analysis, 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. Chapter II of the report focuses on the implementation challenges countries are facing. Finally, chapter III presents key conclusions and recommendations for phase III and beyond.

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 (ensure that policy, regulatory and operational frameworks support ESD) were to be accomplished during the first phase of the Strategy's implementation. The focus of the second phase is mainly on objectives B, C and D: promote sustainable development through formal, non-formal and informal learning (objective B); equip educators with competences in ESD (objective C); and ensure that adequate tools and materials for ESD are accessible (objective D).
- 14. From the self-assessment completed by the participating countries, the implementation of the UNECE Strategy for ESD appears to be well under way. This conclusion also seems to accurately reflect statements made by various countries. Generally, the majority of countries has accomplished or is close to accomplishing objective A. Over the past few years Governments have evidently made efforts to install 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 the political and formal/informal/non-formal education levels). States 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 sector, various countries indicate that they are facing difficulties in realizing this objective.

B. The reporting process

- 15. The Guidance for reporting on the UNECE Strategy for Education For Sustainable Development 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 ECE (ECE/CEP/AC.13/2009/5, para. 10).
- 16. The target groups for the NIRs are identified as follows: Governments (e.g., for self-evaluation purposes); international organizations (e.g., for development of other relevant indicators); and non-governmental organizations (NGOs) and other stakeholders (e.g., to learn about the performance of their respective countries and of the ECE 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 their NIR in a participatory manner. Hence, it can be concluded that, as in phase I, more attention should be given in the future to the involvement of other stakeholders in the evaluation exercise.
- 18. In the NIRs, 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 and in interpretation of the key concepts used. Other Government organizations that were mentioned are departments related to, for example, emergency situations, agriculture, tourism, development and cooperation, youth and lifelong 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 not involving a wide spectrum of stakeholders in the drafting process.

Box 1

Reporting process

Example from Sweden

The Swedish NIR was 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, World Wide Fund for Nature (WWF) Sweden and the Special Adviser to the National Commission for the United Nations Educational, Scientific and Cultural Organization (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 as well as within the Government before submission to ECE.

C. Policy, regulatory and operational frameworks

- 21. The first objective of the Strategy (objective A) states that policy, regulatory and operational frameworks 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 from the review of the NIRs that, compared with phase I, in phase II countries have made considerable process in the completion of objective A.
- 23. From the European Union and other countries from the Western European and Others Group (Canada, Iceland, Israel and Norway) (hereinafter, EU/West), Slovenia, Netherlands, Israel, Germany and Lithuania reported completion of all activities pertaining to objective A. The others are well on their way in establishing 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, 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, countries in Eastern Europe, the Caucasus and Central Asia made considerable progress in the fulfilment of objective A (from 58%, 57% and 50%, respectively, in phase I to 77%, 63% and 57% in phase II). However, as in phase I, none of the countries of that subregion (excluding Belarus, which reported completion of all sub-indicators) has economic incentives in place to support ESD. Armenia mentions that the majority of projects on sustainable development and ESD are realized by international organizations with the support of international donors. The answers of Republic of Moldova (no completions) show that the country is having difficulties in installing the policy, regulatory and operational frameworks to support ESD.
- 25. As pointed out earlier, only Croatia submitted an NIR from the SEE region on time, which makes it hard to say anything meaningful about trends in the subregion as a whole. At the time of analysis, only a brief descriptive report by Serbia was available, which emphasizes the importance of ESD at the national level, and mentions various national legal and strategic frameworks in which ESD is reflected (see also footnote 11). 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, an exact comparison cannot be made, as some countries that submitted data on the completion of this objective during phase I did not submit a new report (the former Yugoslav Republic of Macedonia, 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 sustainable development in formal, non-formal and informal learning (objective B) encourages countries to raise public awareness of sustainable development 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 objective are: the integration of sustainable development themes, learning outcomes and learning methods. The general nature of all three is that they strive to be holistic and problem/action oriented, which means that education should contribute to the development of a 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 education today.

1. Sustainable development 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 sustainable development 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, ECE ministers of environment and education emphasized that countries needed to develop a more integrative conceptualization of ESD to make the move from sectoral 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 it was found to be in the evaluation of the first phase, still, the NIRs for phase II demonstrate that the environmental component of sustainable development largely prevails. As in phase I, the least attention is given to the economic conceptualization of sustainable development: 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 find a place solely in the higher International Standard Classification of Education (ISCED) levels.
- 32. In the SEE region both, Serbia and Croatia, have integrated the social dimension of sustainable development into their learning systems. Yet Serbia clearly puts the emphasis on the environmental pillar of sustainable development. Most programmes mentioned (on a formal, informal and non-formal level) in their report are related to "green" issues.
- 33. The integration of sustainable development learning outcomes also seems to be very well under way. Throughout the ECE 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 subregions (EU/West and Eastern Europe, the Caucasus and Central Asia) 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 Eastern Europe, the Caucasus and Central Asia subregion and among the highest in 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 for objective B (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. The most frequently mentioned methods to address sustainable development are simulations, role playing, games, excursions and outdoor learning; the least frequent employed are philosophical inquiry and good practice analyses. Again the differences between the EU/West and the countries in Eastern Europe, the Caucasus and Central Asia are small, with an exception for the method "workplace experience" — one that is hardly used in Eastern European, Caucasian and Central Asian countries.

2. Strategies to implement ESD are clearly identified

- 37. To integrate sustainable development themes, educational institutions can follow different approaches. The reporting format for phase II of the 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 Eastern Europe, the Caucasus and Central Asia 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 ECE region sustainable development/ESD is mostly addressed through a cross-curriculum approach, followed by the provision of specific courses and as a stand-alone project.

Box 2

Whole-institution approach

Example from Finland

All schools in Finland are required to draw up a sustainable development plan by the end of 2010. This plan must contain information on the implementation of ESD, an account of how the school will change its operations and everyday activities to correspond to the targets set in the plan, and identify who is responsible for implementation. A national ESD strategy is available online. Most institutions of higher education have established their own action plans for sustainable development, including the dimensions of education, research and other activities. Environmental coordinators, who promote ESD as an integral part of their job, have also been appointed by each institution. Furthermore, a set of criteria has been developed to help schools evaluate their activities, make progress on sustainable development and help them apply for a sustainable development certificate. A national target is that 15% of schools will have a sustainable development certificate or the international Eco-Schools Green Flag by 2014.

Example from Israel

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 lifestyle in the school, including through recycling and reductions in the use of resources. There are presently 55 certified kindergarten and primary schools (of a total of 5,000 kindergarten and 1,600 primary schools), and 480 certified junior high schools (of a total of 800).

The requirements for certification include (a) having a sustainable lifestyle that includes reduction of waste, recycling; (b) a curriculum with at least 30 hours on ESD; (c) instituting a Green Council composed of the students; (d) undertaking activities and connecting with the wider community in promoting the Green agenda. The programme 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.

- 39. Sixty-three percent of all countries say they have adopted a whole-institution approach, which generally refers to the simultaneous implementation of four actions: the inclusion of sustainability in a school's curriculum; the reduction of its institutional ecological footprint; the strengthening of student participation; and the improvement of school-community relationships. In phase I only 30% of EU/West countries said they had developed this approach; at present, the figure stands at 74%, representing striking progress. The Eastern Europe, the Caucasus and Central Asia subregion, however, did not advance in this respect: the number of countries in the subregion that have adopted this strategy remains unchanged (two).
- 40. The number of countries providing incentives to support a whole-institution approach also increased in the EU/West region: from 20% (2007), to 50% currently. The Green Flag Scheme, an international award scheme for eco-schools, is being used by many countries to provide incentives, along with 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.

Box 3

Incentives for a whole-institution approach

Example from Cyprus

In supporting schools to adapt to a whole institution approach to sustainable development/ESD, the Cyprus Pedagogical Institute has established an environmental pedagogical team which is working explicitly to create guidelines for schools to help them implement a whole institution approach. That tool is a comprehensive package, including (a) the framework for schools to organize their environmental curriculum and develop a sustainability policy; (b) the key themes of sustainable development and the anticipated learning outcomes; (c) examples of how non-formal and informal education can be used in conjunction with the existing learning processes in schools; (d) the didactic techniques and pedagogical approaches, with indicative examples, that can be used both inside and outside the school setting; (e) the indicators for students, teachers and class evaluation; and (f) the indicators for school progress reports (including campus, curriculum and community work). This educational package is under preparation.

41. With regard to the question on whether institutions/learners develop their own sustainable development/ESD indicators for their institution/organization, countries again noted that the set of ESD indicators developed by an ECE expert group for the NIR were a valuable an innovative tool. However, Governments and schools are encouraged to develop their own set of sustainable development indicators adapted to fit their local context. Indeed, the development of context-specific sustainable development indicators is in itself seen as an ESD exercise. However, less than half of the countries who submitted an NIR reported that institutions/learners developed their own indicators and only a few extensively explained how that was done. Finland referred to the autonomy of schools, which can develop their own indicators if they wish to. In Sweden and other countries NGOs support schools to develop their own indicators.

3. Quality assessment/enhancement criteria

42. The UNECE Strategy for ESD underlines the importance of evaluating progress and to that end emphasizes the development of indicators and sets out a phased programme of implementation to facilitate review. However, while most countries indicate that education quality assessment/enhancement systems are in place, far fewer, have systems that actually address ESD. Moreover, assessment on the regional level is hampered to a certain degree because education is evaluated in different ways by countries. Yet, various examples are given in the NIRs that point to promising progress as compared with phase I. Armenia is using the international quality criteria testing list developed by WWF to assess the value of environmental education programmes. The Netherlands describes an internal peer review method for educational material in the form of a wiki⁹ on the Internet.

Box 4

Quality assessment/enhancement systems

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* guidelines. The criteria are divided in three 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 organization:
 - (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.

^{*} Austria, Federal Ministry of Education, Science and Culture, *Quality Criteria for ESD-Schools: Guidelines to enhance the quality of Education for Sustainable Development* (Vienna, 2005). Available from http://seed.schule.at/uploads/QC_eng_2web.pdf.

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

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 in the context of ESD usually refers to training programmes or courses taking place outside of formal education institutions, for example, in workplaces, neighbourhood centres, museums, art events, youth networks and others. 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. In almost all countries sustainable development is addressed through informal/public awareness-raising activities. Various countries report that activities in this area are abundant, and that sustainable development has increased in visibility over recent years. A random selection of examples, topics, media and methods used including the following:
 - (a) Electronic newsletters by Governments/NGOs;
 - (b) Green items in newspapers;
 - (c) Public conferences and events;
- (d) Magazines specifically dealing with issues related to the environment or sustainable development;
- (e) Celebrations for the European/international environmental calendar, e.g., activities to commemorate Earth Day;
 - (f) Awareness-raising campaigns on climate change;
 - (g) Campaigns against the 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 programmes that support initiatives for gender equality, the integration of handicapped people or the integration of unemployed elderly people in order to prevent poverty;
 - (c) Sustainable building courses in the construction field;
- (d) 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.

Box 5

Work-based learning for sustainability

Example from Croatia

The Green Office is a series of motivational-educational workshops for civil servants to teach them how to reduce negative impacts on the environment through their daily work. Some 1,110 educational workshops are planned to be held for 3,000 civil servants in 2010.

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. Among the examples given are (regular) nationwide surveys to examine the environmental awareness of citizens and recording the number of participants in certain environmental programmes.

Box 6

Assessing the outcome of non-formal and informal learning

Example from Estonia

The Ministry of the Environment commissions a poll of the environmental awareness of residents of Estonia every two years. Some 89% of residents of Estonia consider themselves as environmentally aware; however, they also consider that others are not aware or are rather unaware (2008, 2010). The poll also revealed that usually people save water and electricity and sort garbage in households for economic and not environmental reasons. Some 40% of Estonian residents find waste management the most vital environmental issue. Estonians consider that the vulnerability of the Baltic Sea is a serious problem and that pollution of the Baltic sea has to be reduced. Television is the most frequently used medium for getting information on the environment, and local newspapers are also 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, NGOs, 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 Strategy classification). This is a positive development compared with the first evaluation, in which hardly any countries provided data on this question. From the data it is difficult to gain a deeper insight into 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 to be less the case in phase II.

E. Competence within the education sector

- 49. The competence objective of the Strategy (objective C) refers, in the context of education, to the capacity of formal education educators, educational leaders and decision makers to integrate sustainable development into the curriculum. The Strategy therefore states that competence-building efforts are necessary at all levels of both formal and nonformal 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 Eastern Europe, the Caucasus and Central Asia and the SEE subregions) 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 be included in the training of educators (both in the initial and in-service educator training, as well as in the training of leaders and administrators of educational institutions), as well as the provision of opportunities for educators to cooperate on ESD.

ESD is included in the training of educators (percentage of countries that responded "yes" to the question whether ESD is part of teacher training)

	Eastern Europe, the Caucasus and Central Asia	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 — as in phase I — most ESD training is given in-service. There seems to be noticeable progress compared with 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 these ever are hardly ever supported by the Government.

F. Tools and materials

- 52. The UNECE Strategy for ESD also refers to the requirement to develop adequate materials for ESD at all levels (objective D). 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; to encourage the development and use of electronic, audio, video and multimedia resources and visual aids; to facilitate access by electronic means and the Internet to resources and information relevant to ESD; and to 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 subregions. Countries in Eastern Europe, the Caucasus and Central Asia show that no or 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 it has ESD teaching materials available through the Internet.

- 55. Conversely, EU/West 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 I); and 82% invest money in this activity. None of the Governments in Eastern Europe, the Caucasus and Central Asia 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 that a national strategy that safeguards the dissemination of ESD tools is in place; 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 contributing to ESD should be encouraged (objective E). 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, publicizing it and seeing it is 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, countries can be seen to have made considerable progress. Where the first report stated that little was done in this field, now 68% of 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/sustainable development.
- 60. Where in the previous evaluation countries hardly mentioned any post graduate programmes addressing ESD, the amount has now increased considerably. However, some countries include programmes that do not target sustainable development/ESD directly, but cover conventional environmental-related subjects, such as biology or environmental management.

Box 7

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 project "Transfer 21" at the 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 International Decade of Education for Sustainable Development 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 having a public authority support mechanism in place to share the results of research and good practices in ESD among authorities and stakeholders. This is also reflected by comments of countries with regard 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. Education for sustainable development cooperation

62. Cooperation between countries both within and outside of the ECE region is encouraged for two reasons. First, because this is in line with the aim of sustainable development: 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 well-being. Second, given the high diversity and wealth of knowledge and experience in the region, 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 sustainable development.

International cooperation on ESD is strengthened within ECE region and beyond (percentage of countries that responded "yes" to the questions)

	Eastern Europe, the Caucasus and Central Asia	EU/West	SEE	Total
Cooperation/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 ESD outside the region	0%	57%	Croatia: Yes	47%

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

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

- 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 raising awareness of the potential contribution of indigenous and other local knowledge while implementing the Strategy.
- 66. As in 2007, little data was given regarding this objective for phase II. 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 Eastern Europe, the Caucasus and Central Asia region, Kazakhstan mentions the introduction of a brochure on traditional approaches to energy saving; Belarus developed a programme that consists of the creation of a number of centres and initiatives designed to keep and broaden local and traditional knowledge (e.g., a school of weavers, a programme about village crafts, the revival of traditional rites, festivals and crafts); and in Kyrgyzstan traditional local knowledge on ESD is transferred through the Kyrgyz epic *Manas*, which is regarded as a masterpiece of oral national creativity.
- 68. In the EU/West subregion 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 Sami. In formal education a number of possibilities are said exist to organize schools with a Sami "profile", supported by the municipality. The Sami 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. For its part, 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 chapter looks at the data provided with respect to how to foster conservation, use and promotion of indigenous knowledge in ESD (issue 8) and identifying the kind of assistance that is needed to implement ESD further (issue 9). The 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 the Eastern Europe, the Caucasus and Central Asia subregion

- 70. The following challenges were specifically mentioned in the seven NIRs submitted by the countries of the Eastern Europe, the Caucasus and Central Asia subregion:
 - (a) ESD topics have lost their priority status among most donors;
- (b) Financial resources are lacking to permit further progress and completion of the UNECE Strategy for ESD;
 - (c) Political instability hampers the implementation process;
- (d) There is a lack of continuous prioritization of ESD at the decision-making level;
- (e) There is a lack of, insufficient and/or difficult communication between the ministries involved;
 - (f) There are frequent changes of administration.
- 71. Countries in the subregion identified the following assistance needs:

- (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 manuals on ESD methodology;
- (d) Development of programmes 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 stakeholders;
- (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., Eco-Schools and eco-centres).

B. Challenges in EU/West subregion

72. Most countries in the EU/West subregion 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.

1. 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 notes that an adequate and enduring way to integrate ESD into the curricular remains one of the major challenges and that ESD is still perceived as an "add-on" to the curriculum and not as a cross-cutting principle. To remedy that situation, Germany asked for information on how ESD can contribute to increasing overall educational quality. Likewise, the Czech Republic refers to the need to adopt ESD within institutions of formal education.

2. 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 acknowledges a lack of information about the simplest principles of ESD among its 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.

3. 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 the country responses in the NIRs regarding implementation of ESD as a multistakeholder process. Switzerland refers specifically to non-governmental stakeholders, which are said to be vital, but which are 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 stakeholders.

4. 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 the Ministry of Environment have difficulty in agreeing 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.

5. Unfavourable political and financial climate

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

6. Impeding national education structures

78. Educational structures vary considerably among the different countries in EU/West. Some countries assert that their particular system hampers the development of ESD. In other countries the apolitical (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 enquiry. Sweden says that 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, whereas individual schools have a lot of individual freedom to decide about content and pedagogical approaches for their programmes. Although most schools endorse the importance of ESD, for the Netherlands incorporating ESD in the national curriculum is a challenge.

7. Fragmented coordination and lack of dissemination

79. The national approach to sustainable development is often said to be fragmented in EU/West. 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 learned and to create synergies. The Netherlands, for example, asserts that the lack of coordination and management of all the small initiatives is a weakness and a strategy is needed to bundle the different small initiatives together. Likewise, Switzerland, Sweden and Cyprus refer to coordination difficulties among various bodies.

8. Conceptualizing the holistic nature of education for sustainable development

80. Various nations encounter challenges in conceptualizing the transdisciplinary, holistic nature of ESD. Switzerland notes that the institutions involved "find it difficult to overcome the fragmentation into different subjects, which the transdisciplinary 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. Moreover, they observe that "for technological and financial projects this is easier and so they get priority, also because they are easier to measure and monitor."

9. Lack of long-term planning

81. At the midway point in the period set for implementing the Strategy, 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 efforts will collapse after the completion of the International Decade of ESD.

10. "Obscurity" of the term education for sustainable development

82. Finland, Sweden, the Czech Republic and Austria refer to the general confusion about the meaning, form and connotation of ESD. Finland summarized this impediment by saying it was "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 sustainable development 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.

11. Funding

83. As in phase I, the allocation of financial resources for completion and further progress of the Strategy remains an obstacle (e.g., Croatia, Czech Republic). The ongoing economic challenges which affect different ECE 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 recommendations¹⁰

- 84. Thirty-six countries submitted an NIR, the same number as in the previous evaluation phase. It can be concluded that **the 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, which suggests that the percentage might in actuality be even higher than two years ago. Perhaps the most 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 behaviour, lifestyles and the way institutions and (business) organization work, continued attention to 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

¹⁰ Key conclusions are highlighted in bold; key recommendations are highlighted in italics.

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 International Decade of ESD, countries endorsing the UNECE Strategy appear to be progressing in their efforts to implement ESD in formal, nonformal 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 few years Governments have evidently put effort into 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 the political and the formal/informal/non-formal education levels). 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 be moving forward. Nonetheless, there is a continuous need for further strengthening and securing political commitment on the national and international levels. To help Governments adopt a longterm perspective and to assure successful implementation of ESD beyond 2014, ECE 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, workplace learning, sustainability-oriented community events, the formation of new networks and so on.
- 87. However, many countries also contend that, although increasing, activities are still sporadic and usually do not move beyond the grass-roots 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 sector (objective A), various countries indicate that they are facing difficulties in realizing this objective. There is a need for distinction between sustainable development competence (e.g., citizens' capacities to contribute to sustainable living both professionally and personally) and ESD competence (e.g., an educator's capacity to help people develop sustainable development 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 ECE Expert Group on Competences in ESD could prove to be crucial in this respect. ESD-related teacher training programmes should take advantage of the new insights obtained in relation to ESD competences.
- 89. Serious attempts are being made to integrate ESD into formal education, resulting in a considerable coverage of ESD-related key themes, learning outcomes, methods and strategies. However, many countries report they are facing difficulties in this respect, as well as in developing and disseminating ESD teaching methodologies and materials.
- 90. The adoption of a whole-institution approach advanced remarkably in the EU/West subregion during the reporting period. Although there are different interpretations of such an approach, most countries that provided descriptions tend to emphasize a broad interpretation of sustainable development (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 sustainable development. 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 "transboundary" in nature as they blend formal, informal and non-formal learning and tend to involve multiple actors, groups, organizations and networks. This transboundary nature poses new challenges for facilitators of ESD, as they will have to play an important mediating, linking and catalysing role within such transboundary 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 with 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 sustainable development issues has increased considerably in the media**. Often this visibility is connected to prominent sustainability issues such as loss of biodiversity, the depletion of natural resources, the rise in the number of natural disasters, human-induced climate change, marine toxicity and rising inequity. **The amount of research done in the sustainable development field has also increased** in comparison to phase I, but it should be stressed that sustainable development 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 progress achieved by Governments on their phase II commitments (start integrating sustainable development into learning programmes and curricula, review progress made in the implementation of the national strategies and revise these strategies if necessary) it can be concluded that the fulfilment of the Strategy is well under way. There is no evidence that strategies are being revised in light of ongoing 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 former 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, NGOs and civil society organizations is important, but needs to be supplemented by 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 separate activities undertaken by 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 intersectoral 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 programmes* in the years to come.