UNECE Expert Group on Indicators for Education for Sustainable Development
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GUIDANCE FOR REPORTING[1]

DRAFT

Table of Content:

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INTRODUCTION

1. The UNECE Strategy for Education for Sustainable Development (ESD) was adopted by the High-level Meeting of Education and Environment Ministries (Vilnius, March 2005) following negotiations between environment and education ministries based on a decision in Kiev[2]. This comprehensive Strategy has three phases of implementation to be completed by 2015. The Strategy is implemented in cooperation with UNESCO and is the region's contribution to the United Nations Decade of ESD (2005-2014). At the Belgrade Ministerial Conference[3], for the first time in the history of the "Environment for Europe" process, Ministers of Education and of the Environment of the UNECE region came together for a joint decision, giving an encouraging signal for integration to other sectors as well to cooperate and make sustainable development a reality. Ministers considered achievements, lessons learned and challenges since the 2003 Kiev Ministerial Conference and agreed on the way ahead. They adopted by acclamation a Joint Statement proving commitment to the further implementation of the Strategy.

2. Besides the joint session on ESD at the Belgrade Ministerial Conference some of the major achievements were: (a) the evaluation of progress in the implementation of the Strategy through a comprehensive reporting mechanism and a set of indicators. The feedback of 36 national implementation reports – even as the details of information were different – was a success. The close and effective joint work between UNECE and UNESCO, especially in the area of monitoring the progress was highly appreciated by member States. (b) the collection of good practices in ESD in the UNECE region. This joint UNECE and UNESCO endeavor resulted in the first publication of a wide range of good practices to promote ESD in formal, non-formal and informal education.

3. This guidance was developed as a contribution to the monitoring and reporting mechanism under the UNECE Strategy for ESD. It contains a compilation of information, recommendations and remarks that are mostly available in various documents with a view to helping National Focal Points (NFPs) to develop their respective reports on the progress in the implementation of the Strategy and complete the reporting format provided in the document ECE/CEP/AC.13/2008/2/Add.1. The guidance includes e.g. information on the methodology, suggestions for sources and data collecting, on procedures relevant to the reporting, the background information behind the set of indicators, a set of criteria to monitor the implementation and a set of descriptors to aid the understanding of indicators, a glossary, as well as other useful information and materials.

4. The indicators for ESD were developed by a Group of Experts established following the decision by the Vilnius High-level Meeting with the mandate to develop indicators to measure the effectiveness of the implementation of the Strategy. At the national level, the set of indicators contributes to enhancing learning by: (a) increasing awareness; (b) triggering debate about ESD; and (c) involving multiple stakeholders in the reporting exercise. The indicators may also be adapted to address specific needs by developing more localized benchmarks and sets of indicators into a national Set of Indicators for ESD.

5. The following documents provide information relevant to the reporting:

(a) The UNECE Strategy for ESD (CEP/AC.13/2005/3/Rev.1);

(b) Vilnius framework for the implementation of the UNECE Strategy for ESD (CEP/AC.13/2005/4/Rev.1);

(c) Explanatory notes to the draft UNECE Strategy on ESD (CEP/AC.13/2004/8/Add.2);

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[2] The Fifth Ministerial Conference "Environment for Europe", Kiev, 21-23 May 2003.
[3] The Sixth Ministerial Conference "Environment for Europe", Belgrade, 10-12 October 2007.

(d) Joint Statement on ESD by Ministers of Education and of Environment (ECE/BELGRADE.CONF/2007/4/Add.1);

(e) Ministerial Declaration of the Sixth Ministerial Conference "Environment for Europe" (ECE/BELGRADE.CONF/2007/8, paragraphs 11 and 12); the Chair's Summary of the Conference (ECE/BELGRADE.CONF/2007/9, paragraphs 17-26); and the Chair's Summary of the Joint Session on ESD at the Conference (ECE/BELGRADE.CONF/2007/4/Add.3);

(f) Two Work Plans (for phase I and for phase II) for the implementation of the UNECE Strategy on ESD (CEP/AC.13/2005/8 and ECE/CEP/AC.13/2008/5);

(g) First progress report on the implementation of the UNECE Strategy for ESD "Learning from each other: achievements, challenges and the way forward" (ECE/BELGRADE.CONF/2007/INF/3-ECE/CEP/AC.13/2007/2) and its addendum "Conclusions on the reporting process and on the use of indicators" (ECE/BELGRADE.CONF/2007/INF/3/Add.1-ECE/CEP/AC.13/2007/2/Add.1);

(h) The pilot reports submitted by the UNECE member States (available on http://www.unece.org/env/esd/Implement.Gov.htm);

(i) The Compilation of Good Practices in ESD in the UNECE region (ECE/BELGRADE.CONF/2007/INF/3);

(j) Reports of the first, second and third meetings of the UNECE Steering Committee on ESD (CEP/AC.13/2005/7; ECE/CEP/AC.13/2006/3 and ECE/CEP/AC.13/2008/2);

(k) Progress reports of the Expert Group on Indicators for ESD (CEP/AC.13/2005/9; ECE/CEP/AC.13/2006/5 and ECE/CEP/AC.13/2008/4);

(l) The reporting format (ECE/CEP/AC.13/2008/2/Add.1);

(m) International Standard Classification of Education, ISCED 1997 (UNESCO, November 1997).

6. These documents can be found on the UNECE website at the following addresses: <http://www.unece.org/env/esd/Strategy&Framework.htm>; <http://www.unece.org/env/esd/SC.Meet.htm>; <http://www.unece.org/env/esd/belgrade.htm>; <http://www.unece.org/env/esd/Implementation.htm> <http://www.unece.org/env/esd/GoodPractices/index.html> and <http://www.unece.org/env/esd/SC.EGI.htm>.

I. PROCEDURE

7. The reporting format is for use by the NFPs on ESD for preparing the National Implementation Reports (NIRs) on ESD. The reporting requirements are streamlined by UNESCO and UNECE. Thus, UNECE member States would be able to submit a single report on the implementation of the UNECE Strategy that can also serve as a report on the implementation of the United Nations Decade of ESD.

8. 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). It is expected that other relevant forums might use the results of their work to evaluate implementation of ESD.

9. 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.

10. For countries with a federal government structure, all references to "national" apply to "State", as appropriate. In this context, "data at the national level" means aggregated data received from sub-State entities.

A. Timeframe of reporting

11. Progress over time in implementing ESD could be seen by assessing the progress following the reporting for each of the three implementation phases of the Strategy (2007, 2010 and 2015).

12. The NFPs are expected to prepare NIRs for the pilot voluntary reporting in phase I (2007), and for reporting in phase II (2010) and phase III (2015). The first formal call for reporting would take place in 2010. Thereafter, an updated version of the report would be prepared by the respective Member States for 2015. However, Member States are invited to start reporting voluntarily in 2007 to prepare reports for the Sixth Ministerial Conference "Environment for Europe" (Belgrade, 10–12 October 2007). A proposed timeframe for the reporting exercises is provided in the table below:

Process in a country	**Time required**
First draft of the report	1 month
Multi-stakeholder consultation on the draft	1–3 months
Final report preparation (including translation, where required)	1 months
Deadline for submission of NIRs to UNECE	6 months in advance of a meeting to consider the review of implementation of the respective Phase (II and III)

13. The main elements for the reporting procedure are as follows:

(a) UNECE Member States should prepare reports[4] through a transparent consultative process involving all relevant stakeholders at the national/state level.

(b) Reports should be submitted to the secretariat electronically in Word format. The text should be in English. Member States are also encouraged to provide the text in their own national language, and if feasible in the two other official languages of the UNECE, French and Russian. Reports will be made available in the languages in which they are received. No editing will be provided.

(c) UNECE will post the reports on its website. It will also ensure the distribution of hard copies to the UNECE Member States and key stakeholders. UNESCO will ensure access to the reports through its website and will use them for its work.

(d) The UNECE secretariat will prepare a first report on progress for the Belgrade Conference in 2007 and synthesis reports for 2010 and for 2015, highlighting the progress made, identifying challenges and drawing up recommendations.

(e) Key stakeholders are encouraged to provide the secretariat with their reports on programmes or activities that support the implementation of the Strategy.

[4] Countries with a federal structure will submit one consolidated report based on subnational/state inputs.

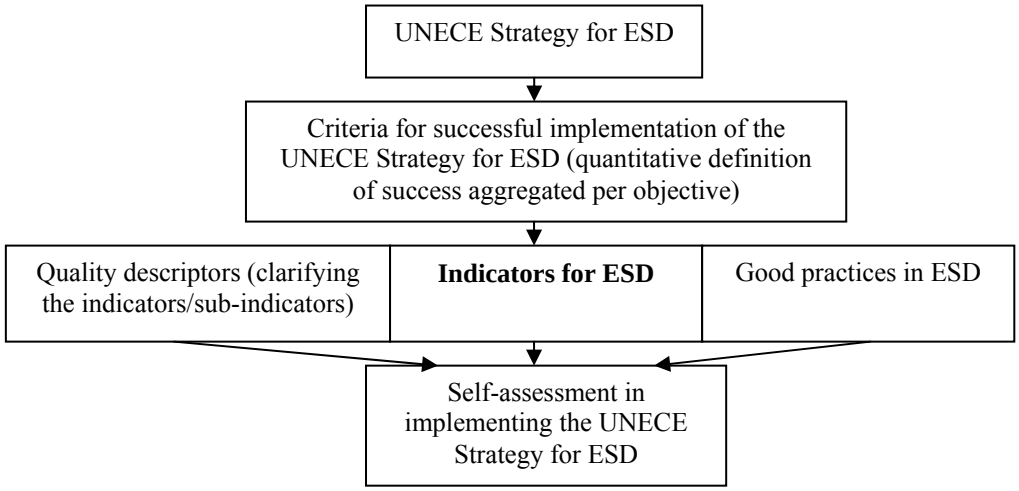
(f) Deadlines for submission to the secretariat will take into account UN document management procedures and will be communicated by the secretariat in due course.

(g) Meetings of the Steering Committee will be a forum for considering reports. The "Environment for Europe" Ministerial Conferences will be informed of progress as appropriate and will be encouraged to hold joint environment/education sessions as needed.

14. Although the *"yes/no" part* of sub-indicators is required to be reported on in Phase I (by 2007) and the *"descriptive" part* in Phase II (by 2010), countries are encouraged to report on the full set of indicators at the end of each phase, to the extent possible, in line with a country's progress in implementing the ESD. Those countries that volunteered to participate in a pilot reporting already in Phase I (by 2007) are advised to report on the full set to the extent possible. Other countries that are not ready for the pilot reporting are invited to complete only the *"yes/no" part* and, if feasible, also the *"descriptive" part*. This exercise would replace the initially foreseen questionnaire and its results will lay down the basis for preparing the first progress report on implementation of the Strategy for the Belgrade Conference.

15. Given the complex nature of ESD and the differences in the interpretation of indicators in the different national contexts across the UNECE region, some additional tools, closely interconnected with each other, were developed to facilitate the review of implementation (see Figure 1 below), such as a set of criteria to assess successful implementation of the Strategy (see annex 1) and a list of descriptors to the reporting format (see annex 2). The collection of good practices in ESD in the UNECE region, carried out jointly with UNESCO and was used, as much as possible, in the development of the descriptors.

Figure 1: Learning from each other



II. INDICATORS

A. Scope

16. The indicators are determined by the objectives of the Strategy. They reflect both aspects: "the implementation" as a process, and "the effectiveness of the implementation", as a qualitative feature of the process and of the outcome, including long-term effects of ESD. Thus, the set of indicators reflect input measures as well as output and outcome of the implementation. Therefore, the assessment cannot be made by using a single indicator, but can only be reflected after considering the set of indicators.

17. The indicators focus on ESD issues and not on sustainable development (SD) as such. In other words, they measure the effectiveness of the implementation of ESD (as set out in the Strategy), not the progress of SD (e.g. progress in biodiversity, climate change, etc.). Obviously, indicators are easier to find and track for formal education than for non-formal and informal education. Therefore, the indicators focus on the formal education, without, however, diminishing the importance of the other two forms of education, in particular their possible negative consequences (e.g. some TV and other advertisements counteract the promotion of SD).

18. The current set of indicators reflects the state of art and it is the best possible result in accordance with the UNECE Strategy itself, the mandate of the Expert Group, the availability of data and methodology, and the common understanding between different countries, educational systems, cultures and languages. Moreover, the current set of indicators would possibly require a revision following the reporting exercises for phases II and III and the feedback received from the countries on the workability and feasibility of the indicators and requested information for reporting.

19. Most of the indicators, as well as the methodology used for their development, could be adapted and used by other regions, and therefore could serve to governments and stakeholders as an efficient tool to assess the progress in ESD within the United Nations Decade of ESD.

B. Nature

20. No single indicator or sub-indicator should be seen as indicative of quality in its own right. Rather, it is the combination of answers that will indicate the state of progress in, and the effectiveness of, implementation of the UNECE Strategy for ESD.

21. The indicators and the reporting mechanism are meant not “to compare” but rather to enable countries of the region to “learn and develop” in the area of ESD, so that the region becomes a “learning region”.

22. An indicator points to an issue or condition. Its purpose is to show how well a system is working. Indicators should be based, as much as possible, on the available data. However, some proposals for a new data collection policy should be adopted due to the complexity and innovative nature of ESD. This last point is particularly important for the information on qualitative issues. Indicators are as varied as the types of systems they monitor. However, there are certain characteristics that effective indicators have in common: they should be relevant, easy to understand, representative, reliable, obtainable from governmental and other reliable sources and available against feasible costs. Indicators can be quantitative (absolute figures or ratios) and qualitative (description or rating), as appropriate[5].

C. Concept of use

23. The Strategy addresses: (a) input measures, (b) a wide range of activities and (c) expected effects with regard to the implementation of ESD. It also illustrates the complex nature of ESD. Therefore, it is important to measure the effectiveness of the implementation of the Strategy throughout the whole implementation process, starting from the initial measures on governance up to the possible effects in society. In this respect, indicators are considered within a clearly defined evaluation model that would help countries to measure the implementation process in a comprehensive and realistic way (see annex 4). Four types of indicators are identified: “Checklist indicators”, “Input indicators”, “Output indicators” and “Outcome indicators”:

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[5] Qualitative indicators might be presented: (a) in a form of description; (b) by using rating with the clear explanatory notes for each rate (e.g. 0 – SD concept not present in any of the subjects, 1 – SD concept integrated into 50% of the subjects etc.); (c) by using marks (e.g. +++ high; ++ medium; + low).

(a) "Checklist indicators" provide information on initial policy, legislation, regulatory and governance measures taken by a government in order to implement the Strategy (e.g. whether a coordinating mechanism is in place, whether the Strategy is translated into national/state language(s)).

(b) "Input indicators" provide information on a broader spectrum of activities taking place in terms of the implementation of the Strategy (e.g. amount of public authority money invested in the ESD materials, proportion of publicly supported research on ESD).

(c) "Output indicators" provide information on the results of these activities (e.g. performance of trained teachers, number of businesses involved in ESD projects, ratio of educators who received training on ESD issues).

(d) "Outcome indicators" provide information on the possible impact due to the implementation of the Strategy, in particular its qualitative aspect in terms of values, attitudes and choices in favour of SD (e.g. learning outcomes resulting from ESD partnerships, community-based projects and business involvement).

24. To monitor the progress of the implementation of the ESD Strategy made by each country, there is a need to describe the current situation per country. Baseline data shows the existing situation in relation to an issue at a certain point in time. Data for 1 January 2006 will be used as baseline data. The differences in starting points for different countries with respect to the implementation of the Strategy and, therefore, to the outcome of the evaluation based on the indicators, will be taken into account.

D. Overview of indicators

25. The set comprises 18 indicators with 49[6] sub-indicators structured according to the 6 issues for reporting, which follow the objectives of the Strategy. There are 46 *qualitative* sub-indicators and 8 *quantitative*, of which 5 are of a dual nature. The sub-indicators are of several *types:* 11 sub-indicators are "checklist", 30 are "input" (of which 1 is of a dual type), 8 are "output" and 1 is "outcome". The format of indicators/sub-indicators consists of two parts: a "yes/no[7]" part and a "descriptive" part.

26. The list of indicators (see annex 2) includes, in addition to specification of the type of indicator, information on *"means and sources of verification",* and is meant as guidance to help NFPs find the information necessary to complete the indicators. In some countries the information might be available in sources relevant to "environmental education" or "development education", which might not necessarily be viewed as ESD but which could nevertheless provide relevant information for populating the indicators on ESD.

27. Template tables are annexed to the set of indicators. This approach enables simplification while retaining the substance of the initial set of indicators to the greatest extent possible. It also provides countries with a user-friendly template requiring them to select predefined boxes as relevant.

28. The International Standard Classification of Education (ISCED), and in particular the classification of levels of education (see annex 5), was used for developing the indicators for ESD. ISCED was designed by UNESCO in the early 1970's to serve 'as an instrument suitable for assembling, compiling and presenting statistics of education both within individual countries and internationally'. It was approved by the International Conference on Education (Geneva, 1975), and was subsequently endorsed by UNESCO's General Conference when it adopted the Revised Recommendation concerning the International Standardization of Educational Statistics at its twentieth session (Paris, 1978). The present classification, now known as ISCED 1997, was approved by the UNESCO General Conference at

[6] One sub-indicator (2.1.3) was added as a result of the revision exercise undertaken after the pilot reporting.
[7] A "no" answer should be selected also in the case of "not applicable", and explanation provided on why it is not applicable.

its 29th session in November 1997. It was prepared by a Task Force established by the Director-General to that effect and is the result of extensive consultations of worldwide representation. ISCED 1997 covers primarily two cross-classification variables: levels and fields of education.

29. The specific for higher education issues are addressed in the set of indicators through footnotes across all objectives in order to translate some of the currently used school system terminology into terminology appropriate for the higher education system.

E. Assessment

30. The assessment mechanism behind the indicators is based on the answers to the sub-indicators that would provide input into the indicator's assessment. It is not feasible to sum up the answers to the sub-indicator in a quantitative way to build sound data for the indicator as such. Therefore, the indicator has to be presented as a qualitative judgment of the sub-indicators. To evaluate the answers provided in the annexed templates-tables, and consequently assess the sub-indicators, a "scoring key" was developed. Following the "tailor-made" approach a variety of rankings is used, expressing numbers, percentage, amounts and state of a process. To ensure consistency across the indicator set, these are expressed as a six-category scale from A (minimum) to F (maximum). For some of the templates-table the distribution of ticks is more important than the raw number of ticks. The number of ticks can be used for the country's own monitoring process.

31. Countries are encouraged to undertake a so-called self-assessment exercise, following the completion of the reporting format. This would imply for countries on voluntary basis to self-assess the status of the implementation of the respective indicator on the basis of the answers to the sub-indicators. The self-assessment exercise would be a valuable addition to the information provided in the Reporting Format and would help to minimize, to the extent possible, the subjectivity of the conclusions drawn by an independent expert when preparing a synthesis reports on progress in implementing the Strategy across the region. Moreover, the self-assessment would provide countries with the opportunity to reflect on the national progress in implementing the Strategy.

F. Pilot reporting

32. The first reporting exercise (pilot reporting) took place at the end of 2006 – beginning of 2007 in time for the Sixth Ministerial Conference "Environment for Europe" (Belgrade, 10-12 October 2007). The 36 reports submitted proved that reporting was a useful tool for Governments and at the same time it engendered conclusions on certain areas where improvement vis-à-vis the set of indicators was needed. In response to feedback received from countries on the indicators' workability and feasibility, a limited number of indicators were revised by presenting them in a more explicit way with a few additional specifications. The revisions include the addition of one new sub-indicator (2.1.3) dedicated to teaching/learning methods under the indicator 2.1 and a few modifications and additions to the annexed templates-tables. In addition, a list of descriptors containing explanatory notes to each indicator/sub-indicator, was prepared, which would serve as a supporting tool to enhance reporting by Governments (see chapter IV below and annex 3). This would ensure better understanding of indicators by Governments on the one hand, and on the other would allow for distilling meaningful conclusions on the status of the Strategy's implementation in a given country.

G. Contribution to the review of implementation of the United Nations Decade of ESD

33. The UNECE indicators and the established reporting mechanism constitute an important contribution from the UNECE region to the global monitoring and evaluation process for the United Nations Decade of ESD, ensuring synergies and mutual benefits. The decisions by the Vilnius High-level Meeting and by the Ministers of Education and of the Environment in their Joint statement on ESD made

at the Belgrade Ministerial Conference, provide for the submission of a single report on the implementation of the UNECE Strategy for ESD that would also serve as a report on the implementation of the United Nations Decade on ESD. Taking into account the differences and similarities of the UNECE reporting format and the UNESCO questionnaire to assess the implementation of the United Nations Decade of ESD the NIRs and other available information on ESD implementation from the UNECE region represent a valuable regional contribution to the assessment of the implementation of United Nations Decade of ESD.

III. CRITERIA TO ASSESS SUCCESS

34. The need to develop quality criteria for the successful implementation of ESD, was identified, with a view to facilitate/support the interpretation of the indicators/sub-indicators, which depends substantially upon the national context. In addition, examples of good practice for relevant indicators/sub-indicators could demonstrate how ESD principles could be implemented within specific contexts. This issue was approached from both quantitative and qualitative perspectives.

35. A set of criteria/thresholds was developed as a follow-up to the quantitative approach (see annex 1). These "thresholds" are intended to provide countries with an understanding of an expected minimum level of achievement; progress could then be monitored in subsequent phases of the implementation scheme. The set of quality criteria follows the objectives of the Strategy. Since much of the available information on quality criteria is for the school/project level (e.g. "Quality criteria for ESD Schools"[8] developed by the "School Development through Environmental Education" and ENSI networks), the developed quality criteria target the policy level.

36. The definition of quality should be based on the principles described in the Strategy. These principles suggested the qualities or values that one would look at in judging "good" practice. Making these values explicit could be achieved by translating them into illustrations or examples of good practice. This reasoning led to the idea of developing "descriptors" to explain the meaning of "good" practice, as a follow-up to the qualitative approach.

IV. DESCRIPTORS

37. In trying to keep the set of indicators short and concise the descriptive part of many of the qualitative indicators/sub-indicators was sometimes confusing and could be better explained. This could be rectified by revising the indicators/sub-indicators themselves or providing additional explanations in a guidance document to accompany the set of indicators. The latter seemed to be a more appropriate approach for the policy level at which the NIRs were being prepared. The list of descriptors is structured to include: (a) the reference to the indicator/sub-indicator; (b) the description of those sub-indicators that required some additional clarification of their meaning and expected reporting information; (c) the relevant quote from the Strategy; and (d) examples, i.e. good practices and case studies or references to the relevant places where these could be found (see annex 3).

The list of descriptors is an organic phenomenon and therefore its field "examples" would require updates in line with the evolution of the implementation process (e.g. for each of the implementation phases of the Strategy, revisions might be necessary to keep abreast with developments in SD and ESD).

V. GOOD PRACTICES

38. A set of examples of good practice in ESD would facilitate a clearer understanding of how ESD might be better implemented at the national level. To this end, good practices were collected jointly by

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[8] "Quality Criteria for ESD-Schools", Guidelines to enhance the quality of Education for Sustainable Development; Soren Breiting, Michela Mayer, Finn Mogensen, May 2005.

UNESCO and UNECE in preparation for the Belgrade Ministerial Conference. Good practices offer a wealth of experience and could be a key tool to promote ESD in the region and worldwide during next two phases of the Strategy implementation.

39. In developing the list of descriptors efforts were made to classify these good practices according to the indicators and sub-indicators within the UNECE reporting format. As a follow-up on this, a more appropriate template was developed for the collection of good practices illustrating the indicators/sub-indicators, thereby effectively supporting the understanding of both the expected results and the actions needed for successful implementation (see annex 6… - to be completed following the 8th meting of the Expert Group).

VI. OTHER MATTERS

40. In resolving the tension that exists between those who see ESD as a means of changing behaviour (instrumental view) and those who consider it to be a more learner-centred process (emancipatory view) the two interrelated approaches of ESD[9] are explained below:

(a) "ESD 1", providing information and developing skills with a view to achieving a predetermined behaviour change. This is important because some behaviours are self-evidently beneficial. While the preferred sustainable behaviour is made explicit, building up learners' capacity to learn is often implicit, if it is there at all;

(b) "ESD 2", building our capacity to think critically about and beyond sustainability messages ("learning to learn"). This includes testing SD ideas and exploring the contradictions inherent in sustainable living. In this approach, building our capacity to learn is explicit, whereas sustainability messages may be implicit. This is learning as sustainable development (i.e. recognizing that SD is inherently a learning process).

41. These two forms can be seen as complementary sides of the same 'ESD coin'; the ancient Chinese concept of Yin and Yang (see Figure 2 below) is a useful way of looking at this relationship.

Figure 2: The Yin-Yang Symbol

42. The dots within the Yin-Yang symbol represent the view that no phenomenon is completely devoid of its opposite, hence they are not complete opposites. The Yin-Yang concept also suggests that 'opposing' principles consume and support each other and that phenomena change into their opposites in an eternal cycle of reversal.

43. This would suggest that even as we deliver a strong ESD 1-style programme of pro-environmental learning, ESD 2 is likely to be taking place. Vare and Scott (2008)[10] extend this argument further by suggesting that we cannot deliver ESD 1 or ESD 2 in isolation.

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[9] Vare, P. and W. Scott (2007), "Learning for a Change: exploring the relationship between education and sustainable development", *Journal of Education for Sustainable Development* 1(2), 191–198.
[10] Vare P and Scott W (2008) *Education for Sustainable Development: two sides and an edge*, DEA, UK. PDF file downloadable at: <http://www.dea.org.uk/uploads/4453d22a64a184b4f76a113996448fcf/dea_thinkpiece_vare_scott.pdf>.

44. Achieving a balance between ESD 1 and 2 is important. ESD 1 is essential to planning for the future, but too much ESD 1 could make society more unsustainable, either because people feel they need to be told what to do next or because they learn to resist the encouragement of experts. ESD 2 helps us survive and thrive in the future, but while ESD 2 may build resilient, self-confident people, these capacities are of little use isolated from critical knowledge of sustainability issues.

VII. RECOMENDATIONS

45. To ensure high-quality answers in the NIRs Governments should:

(a) Strengthen cooperation between the environment and education sectors;

(b) Strengthen multi-stakeholder participation in preparation of the NIRs. It is very important to prepare the NIRs in a transparent and participatory manner. One option could be establishing stakeholder groups to support the national reporting process.

(c) Recognize the self-assessment exercise as a means to learn from the implementation;

(d) Support the NIRs with examples and good practices. The inclusion of examples and/or references, e.g. links to websites, documents, etc. during the preparation of the NIRs would be crucial to assessing in an objective way the progress achieved by countries, and would substantially facilitate the exchange of experience and good practices.

(e) Present good practices and NIRs in an interactive and user-friendly way through the UNECE website. The use of information and communications technology should be enhanced, which could provide various information and documents related to the implementation of the process through the UNECE website in a user-friendly way. This might require additional resources, but would vitally support and further ESD implementation. For instance, one service might be to provide user-friendly access to the NIRs allowing for information searches by objective, indicator, or sub-indicator. Another useful service might be revising the website providing good practices to enable searches for good practices related to objectives of the Strategy (for more information refer to the Work Plan of Implementation for Phase II of the UNECE Strategy for ESD, part C. and annex IV).

(f) Organize trainings for national focal points on the use of the reporting format and on the meaning of indicators.

(g) Build capacity in ESD at all levels, in particular in the field of monitoring and assessment the implementation of the ESD Strategy should be a learning process in itself. The development of a specialized training programme for different target groups would be useful for supporting these capacity-building activities.

VIII. GLOSSARY

46. Below are provided some explanations of the most often used terminology across the reporting format. Other explanatory notes can be found in the document CEP/AC.13/2004/8/Add.2.

47. *Education for Sustainable Development* is still developing as a broad and comprehensive concept, encompassing interrelated environmental, economic and social issues. It broadens the concept of environmental education (EE), which has increasingly addressed a wide range of development subjects. ESD also encompasses various elements of development and other targeted forms of education (for more information please see the Chapter III. of the UNECE Strategy for ESD, CEP/AC.13/2005/3/Rev.1).

48. *Key themes of Sustainable Development* 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[11]. Addressing such divers themes in ESD requires a holistic approach[12].

49. *Education* is derived from the Latin *educare*, meaning to rear or foster and from *educere*, which means to draw out or develop. While this developmental and transformative meaning retains currency, it has largely been overshadowed by transmissive ideas relating to instruction and teaching. Education (as a verb) is commonly used to describe a process and also (as a noun) shorthand for the 'education system', which involves policies, institutions, curricula, actors, etc.

50. *Learning* is the process through which knowledge, values and skills are developed. The processing of information results in a relatively stable change in the behaviour of an individual or organization. Learning is absorbing information and integrating the information in and considerations in such a way that this leads to different choices, different behaviour. Information (consisting of data, basic information) is connected with our knowledge, our experience, our norms and values and the way we lead our lives (giving meaning to life).

51. *Education for sustainable development* reflects the parent term "sustainable development", defined as development "that meets the needs of the present without compromising the ability of future generations to meet their own needs (World Commission on Environment and Development Report, 1987). Sustainable development is a complex issue, encompassing economic, environmental and social dimensions. In other words, development is essential to satisfy human needs and improve the quality of human life. At the same time, development must be based on the efficient and responsible use of all of society's scarce resources - natural, human and economic.

52. *Training* in this context means the same as education, but includes practical application.

53. *Initial educators' training* means studies undertaken by new teachers/lecturers/trainers to obtain the required licence/certificate/diploma in order to be a qualified teacher. Some lecturers may be required to follow ESD-related courses as part of their PhD studies.

54. *In-service training* [is education for employees to help them develop their skills in a specific discipline or occupation. In-service training takes place *after* an individual begins work responsibilities. Most typically, in-service training is conducted during a break in the individual's work schedule. It includes orientation programmes] – work on the definition within the context of EG's work!.

55. *Continuing education/training* covers activities aimed at updating, refreshing or extending knowledge and skills gained during basic education/training.

56. *Educators* are teachers, lecturers, trainers and voluntary education leaders.

57. *Learners* are pupils, students and participants of trainings.

58. *Learning processes* are often described at an individual level. However, it might be based on the learning citizen, at three levels:

(a) As a learning person: individual skills, self-development, the individual position in society, leading to sustainable behaviour or not;

(b) Within the learning organization: the organization tries to improve the quality of its own structure and performances. The qualification "learning organization" applies only if there are sufficient

[11] See also Framework for a draft implementation scheme for the Decade of Education for Sustainable Development, UNESCO, 2003.
[12] See also Statement on Education for Sustainable Development.

numbers of individuals who adopt a behavioural change leading to changes in the structure and performances;

(c) Within the learning society: an addition of learning processes of different organizations and individuals with their own perspectives, but with a cumulative effect.

59. *Formal learning* takes place in education and training institutions, leading to recognized diplomas and qualifications.

60. *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 may be provided at the workplace and through the activities of civil society, organizations and groups (such as youth organizations, trade unions and political parties). It can also be provided through organizations or services that have been set up to complement formal systems (such as arts, music and sport classes or private tutoring to prepare for examinations).

61. *Informal learning* is a natural accompaniment to 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.

62. *Action-oriented teaching and learning* approaches emphasize that education for sustainable development (ESD) aims of contributing to sustainable changes in society and the environment. It is thus recommended that ESD should involve concrete environmental actions taken by students and other target groups as integrated parts of teaching and learning processes. An action is targeted at change: a change in a person's lifestyle, in the local society or in the global society. And an action is intentional. The action-oriented approach has two main goals: to contribute to the development of students' own competences to take action and to facilitate sustainable changes in the short and the longrun.

63. *Critical thinking* in this context means that ESD should be ideologically aware and socially critical, thereby recognizing that no educational values are politically neutral. In general, critical thinking can be defined as how individuals consciously adapt information into their own understanding within their existing values, interests and knowledge. This general definition applies to critical thinking in learning processes, but it is important to emphasize willingness to take open-mind approaches by both learners and teachers, particularly to various cultural, economic, ecological, political and social issues. At best, critical thinking could lead to socio-cultural and intellectual flexibility with an understanding that, in addition to human capabilities, all information is principally related to place and time.

64. *Integration* needs to be seen at the opposite end of the spectrum from fragmentation/segregation/disintegration. Integration in this context is understood as integration of subjects, departments, educational institutions and their communities, and also of what has been called the five dimensions of an educational institution - its ethos, its curriculum (if there is any), its pedagogy, its organization and management, and its community. Integrative efforts aim at systemic change across all areas and dimensions reflecting sustainability rather than just 'piecemeal' change in one area. Integration also means more emphasis in educational activities on interdisciplinary and trans-disciplinary inquiry, reflecting that no subjects, factors or issues exist in isolation. Inter- and trans-disciplinary inquiry has the potential of breaking free of disciplinary perceptions and traditions to create new meaning, understandings and ways of working. Simply putting disciplines together, by contrast, is often no more than the sum of the parts.

65. *Interdisciplinary approach* The emphasis is on the interconnections between different perspectives. Interdisciplinary approach - courses studied at college or university involving two or more different subjects; cooperation within a common framework shared by the disciplines involved.

66. *Multidisciplinary approach* refers to looking at an issue from many knowledge or practical disciplinary perspectives but not integrating them. The multidisciplinary approach involves different subjects of study in one activity, without changes in disciplinary and theoretical structures.

67. *Problem-oriented* means that, instead of organizing the teaching around topics from one of the usual disciplines, the subject concerns with an issue or a problem.

68. *Process-oriented* in this context means widening the scope in planning, pedagogy, didactics, etc. in educational activities from narrow content focus to an awareness of learning and education as processes, thereby highlighting the activities, the dynamics, the actors, the phases and the relation between areas more than decontextualized contents of information.

69. *Problem-based* learning is characterized by contextualized problem-setting and situations. The content of the course of study is introduced in the context of real-world problems. Problems or cases from the real world are used as a means to motivate and initiate students' learning processes, i.e. acquiring a predetermined content and at the same time developing transferable personal competencies (interpersonal skills, critical thinking, etc). The distinctions between problem-based learning and other forms of cooperative or active learning are often blurred because they share certain features.

70. *Project work* is characterized by problem orientation, product orientation, interdisciplinarity, coherence between theory and practice, and joint planning by teachers and students. The issue or problem in focus has to be found in the surrounding world (authenticity) and the relevant knowledge from subjects and disciplines has to be chosen according to the problem in focus. Project work is an individual and collective learning process based on scientific principles (action research) aiming at finding possible solutions/proposals for change (the product) – the answers are not given in advance.

71. *Knowledge management* is about bringing together demand and supply of knowledge. This knowledge is based on understanding and experiences: the best working methods, new ideas, creative 'solutions', breakthrough processes, skills, etc. It concerns knowledge with an added value that promotes wisdom and provides understanding. Therefore, knowledge management is not only about storing data. The premise of knowledge management is not so much that there is a lack of knowledge and understanding concerning learning processes with respect to sustainability, but that this knowledge is insufficiently available. This knowledge has to flow and be available in a wider circle wherever needed. Connecting knowledge and understanding with 'adjacent' sectors and policy areas is crucial.

… Do we need to provide any other definition of indicators related terminology?!

Annex 1.

CRITERIA TO ASSESS SUCCESSFUL IMPLEMENTATION OF THE UNECE STRATEGY FOR EDUCATION FOR SUSTAINABLE DEVELOPMENT

1. Criteria to assess success in [the implementation of] ensuring that policy, regulatory and operational frameworks support the promotion of education for sustainable development

(a) Basic prerequisites for the implementation of the Strategy have been achieved (see the format for reporting, sub-indicators 1.1.1, 1.1.2, 1.1.3 and 1.2.7);

(b) ESD is explicitly mentioned in national legislation and/or national policy documents (see the format for reporting, sub-indicators 1.2.1 and/or 1.2.2 and/or 1.3.1 and/or 1.2.3 and/or 1.2.4);

(c) A national ESD action plan is being developed and implemented through an interdepartmental and multi-stakeholder process (see the format for reporting, sub-indicators 1.1.4, 1.2.5 and 1.2.6).

2. Criteria to assess success in [the implementation of] promoting sustainable development through formal, non-formal and informal learning

(a) Themes related to social and environmental and economic dimensions are addressed in the curricula at a minimum of four of the ISCED levels (see the format for reporting, appendix 1 (a));

(b) These themes are addressed in an integrated manner (see the format for reporting, sub-indicator 2.2.1, table and column (b));

(c) The four learning competencies are addressed covering at least three expected outcomes (see the format for reporting, appendix 1 (b), column one);

(d) There is at least one national programme to support the implementation of "a whole-institutional approach";

(e) ESD is addressed in a statutory quality assessment system in at least one ISCED level;

(f) At least one examples is given of SD issues being addressed in both non-formal and informal education (see the format for reporting, sub-indicators 2.5.1 and 2.5.2);

(g) The example(s) given in 2.5.3 demonstrates how evaluation results of non-formal and/or informal education have been used to improve practice (see the format for reporting, sub-indicator 2.5.3);

(h) Most of the stakeholder groups are involved in a wide range of educational activities (see annex 2).

3. Criteria to assess success in [the implementation of] equipment of educators with the competence to include sustainable development in their teaching

(a) ESD is incorporated in initial and in-service training of educators within at least four ISCED levels (see the format for reporting, appendix 3);

(b) ESD is incorporated in the training of leadership and administrative staff within at least four ISCED levels (see the format for reporting, appendix 3);

(c) There is at least one national programme or initiative to support cooperation/networks/platforms on ESD among educators.

4. Criteria to assess success in [the implementation of] ensuring that adequate tools and materials for education for sustainable development are accessible

(a) A working system is in use to assure the quality of ESD tools and materials (see the format for reporting, sub-indicators 4.2.1);

(b) ESD tools and materials are available to at least three ISCED levels (see the format for reporting, sub-indicators 4.2.2) and at least one of the facilities included in the indicator 4.3 exists.

5. Criteria to assess success in [the implementation of] promoting research and development of education for sustainable development

(a) Research on ESD is carried out and supported (at least three of the sub-indicators, 5.1.1, 5.1.2, 5.1.3, 5.1.4 and 5.3.2, should be met);

(b) ESD actors are supported in contributing to ESD research and development (see the format for reporting, sub-indicator 5.2);

(c) Initiatives or mechanisms are described that link the ESD research and development with practice (see the format for reporting, sub-indicator 5.3.1);

(d) ESD research involves interactive dissemination mechanisms (see the format for reporting, sub-indicators 5.3.1 and 5.3.2.).

6. Criteria to assess success in [the implementation of] strengthening cooperation on education for sustainable development at all levels within the UNECE region

(a) At least one example of international cooperation is provided under the indicator 6.1.

7. Criteria to assess success in [the implementation of] fostering conservation, use and knowledge of indigenous people in education for sustainable development

(a) Evidence shows that the role of indigenous people’s knowledge is recognized in ESD.

Annex 2.

LIST OF INDICATORS

Indicators / sub-indicators		Type	Source of verification
OBJECTIVE 1[1]. ENSURE THAT POLICY, REGULATORY AND OPERATIONAL FRAMEWORKS SUPPORT THE PROMOTION OF ESD			
Indicator 1.1	**Prerequisite measures are taken to support the promotion of ESD**		
Sub-indicator 1.1.1	Is the UNECE Strategy for ESD available in your national[2] language(s)?	Qualitative; "Checklist"	Government reports
Sub-indicator 1.1.2	Have you appointed a national focal point to deal with the UNECE Strategy for ESD?	Qualitative; "Checklist"	Government reports
Sub-indicator 1.1.3	Do you have a coordinating body for implementation of ESD?	Qualitative; "Checklist"	Government reports
Sub-indicator 1.1.4	Do you have a national implementation plan for ESD?	Qualitative; "Checklist"	Government reports
Sub-indicator 1.1.5	Are there any synergies at the national level between UNECE ESD process, the UNESCO global process on the United Nations Decade of ESD[3], and other policy processes relevant to ESD?	Qualitative; "Checklist"	Government reports; Reports of relevant Ministries
Indicator 1.2	**Policy, regulatory and operational frameworks support the promotion of ESD**		
Sub-indicator 1.2.1	Is ESD reflected in any national policy[4] document(s)?	Qualitative; "Checklist"	Government reports
Sub-indicator 1.2.2	Is ESD: (a) addressed in relevant national education legislation/regulatory document(s); and (b) included in your national curricula and/or national standards/ ordinances/ requirements; at all levels of formal education, as understood by your education system in accordance with ISCED[5]?	Qualitative; "Input"	Reports of relevant Ministries
Sub-indicator 1.2.3	Is non-formal and informal ESD addressed in your relevant national policy and/or regulatory document(s) and operational frameworks?	Qualitative; "Checklist"	Government reports
Sub-indicator 1.2.4	Is public awareness in relation to ESD addressed in relevant national document(s)?	Qualitative; "Checklist"	Government reports
Sub-indicator 1.2.5	Does a formal structure for interdepartmental[6] cooperation relevant to ESD exist in your Government?	Qualitative; "Checklist"	Government reports
Sub-indicator 1.2.6	Does a mechanism for multi-stakeholder cooperation on ESD exist with the involvement of your Government[7]?	Qualitative; "Checklist"	Government reports

[1] Subject for evaluation: Objectives of the Strategy in accordance with the UNECE Strategy for Education for Sustainable Development (CEP/AC.13/2005/3/Rev.1).
[2] For countries with a federal governmental structure, all references to "national" apply to "State", as appropriate. In this context, data at national level means aggregated data received from sub-State entities.
[3] The United Nations General Assembly proclaimed in its resolution 57/254 of 20 December 2002 the-year beginning on 1 January 2005 the United Nations Decade of Education for Sustainable Development.
[4] Policy documents may include national strategies, plans, programmes, guidelines etc..
[5] International Standard Classification of Education (ISCED), UNESCO, 1997 <http://www.unesco.org/education/information/nfsunesco/doc/isced_1997.htm>.
[6] Between State bodies.

	Indicators / sub-indicators	Type	Source of verification
Sub-indicator 1.2.7	Are public budgets and/or economic incentives available specifically to support ESD?	Qualitative; "Input"	Government reports
Indicator 1.3	**National policies support synergies between processes related to SD and ESD**		
Sub-indicator 1.3.1	Is ESD part of SD policy(s) if such exist in your country?	Qualitative; "Checklist"	Government reports; Reports of relevant Ministries
OBJECTIVE 2. PROMOTE SD THROUGH FORMAL, NON-FORMAL AND INFORMAL LEARNING			
Indicator 2.1	**SD key themes are addressed in formal education**		
Sub-indicator 2.1.1	Are key themes of SD[8] addressed explicitly in the curriculum[9]/programme of study at various levels of formal education?	Qualitative; "Input"	Education institutions and Ministries responsible for Education
Sub-indicator 2.1.2	Are learning outcomes (skills, attitudes and values) that support ESD addressed explicitly in the curriculum[10]/programme of study at various levels of formal education?	Qualitative; "Input"	Education institutions and Ministries responsible for Education
Sub-indicator 2.1.3	Are teaching/learning methods that support ESD addressed explicitly in the curriculum[11]/programme of study at various levels of formal education?	Qualitative; "Input"	Education institutions and Ministries responsible for Education
Indicator 2.2	**Strategies to implement ESD are clearly identified**		
Sub-indicator 2.2.1	Is ESD addressed through[12]: (a) Existing subjects[13] only? ; (b) A cross-curriculum approach? ; (c) The provision of specific subject programmes and courses?; (d) A stand-alone project[14]?; (e) other approaches?	Qualitative; "Input"	Education institutions and Ministries responsible for Education
Indicator 2.3	**A whole institution approach[15] to SD/ESD is promoted**		
Sub-indicator 2.3.1	Do educational institutions[16] adopt a "whole institution approach" to SD/ESD?	Qualitative; "Output"	Education institutions, funding agencies

[7] For explanation see paragraph 46 of the UNECE Strategy for ESD.
[8] For explanation see paragraph 15 of the UNECE Strategy for ESD.
[9] See footnote 2.
[10] See footnote 2.
[11] See footnote 2.
[12] For higher education institutions: These distinctions would be equal to: a) **courses and disciplines**, b) **interdisciplinary courses**, c) **separate, specified SD courses or seminars**, and d) **stand alone projects** implemented by the department, faculty or inter-faculty structures.
[13] E.g. geography, biology. For higher education 'subject' means 'course'.
[14] Project is interpreted as a discrete activity with its own time allocation rather than a teaching/learning method.
[15] "A whole institution approach" means that all aspects of an institution's internal operations and external relationships are reviewed and revised in light of SD principles. Within such an approach each institution would decide upon its own actions addressing the three overlapping spheres of Campus (management operations); Curriculum; and Community (external relationships).
[16] For higher education institutions: **Whole university**, **whole college** or **whole faculty approach** (including inter-faculty approaches).

	Indicators / sub-indicators	Type	Source of verification
Sub-indicator 2.3.2	Are there any incentives (guidelines, award scheme, funding, technical support) that support "a whole institution approach to SD/ESD"?	Quantitative; "Output"	Education institutions, funding agencies
Sub-indicator 2.3.3	Do institutions/learners develop their own SD/ESD indicators for their institution/organization?	Qualitative; "Output"	Education institutions, funding agencies
Indicator 2.4	**ESD is addressed by quality assessment/enhancement systems**		
Sub-indicator 2.4.1	(a) Are there any education quality assessment/enhancement systems? (b) Do they address ESD[17] **?** (c) Are there any education quality assessment/enhancement systems that address ESD in national systems?	Qualitative; "Input"	Education institutions and Ministries responsible for Education
Indicator 2.5	**ESD methods and instruments for non-formal and informal learning are in place to assess changes in knowledge, attitude and practice**		
Sub-indicator 2.5.1	Are SD issues addressed in informal and public awareness raising activities?	Qualitative; "Input"	Reports by the trade unions and professional associations, relevant Ministries
Sub-indicator 2.5.2	Is there any support for work-based learning (e.g. for small companies, farmers, trade unions, associations, etc.), which addresses SD issues?	Quantitative; "Input"	Reports by the trade unions and professional associations, relevant Ministries
Sub-indicator 2.5.3	Are there any instruments (e.g. research, surveys, etc.) in place to assess the outcomes of ESD as a result of non-formal and informal learning?	Qualitative; "Input" / "Outcome"	Reports by the trade unions and professional associations, relevant Ministries
Indicator 2.6	**ESD implementation is a multi-stakeholder process[18]**		
Sub-indicator 2.6.1	Is ESD implementation a multi-stakeholder process?	Qualitative; "Input"	Reports by the trade unions and professional associations, relevant Ministries
OBJECTIVE 3. EQUIP EDUCATORS WITH THE COMPETENCE TO INCLUDE SD IN THEIR TEACHING			
Indicator 3.1	**ESD is included in the training[19] of educators**		
Sub-indicator 3.1.1	Is ESD a part of educators' initial training?[20]	Qualitative; "Input"	Educational institutions, Ministry of Education

[17] For higher education institutions: either **national centres for quality assessment in higher education** or cooperation with general quality assessment agencies such as the European Foundation for Quality Management (EFQM).
[18] For higher education institutions: this covers the issue of **university "outreach"** (meaning wide spectrum from regional integration, business cooperation and transdisciplinarity to eco-procurement and research-education-cooperation).
[19] ESD is addressed by content and/or by methodology.
[20] For higher education institutions: The focus is here on existing **teacher training at universities/colleges** regarding SD and ESD for university/college teachers.

Indicators / sub-indicators		Type	Source of verification
Sub-indicator 3.1.2	Is ESD a part of the educators' in-service training?[21]	Qualitative; "Input"	Educational institutions, Ministry of Education
Sub-indicator 3.1.3	Is ESD a part of training of leaders and administrators of educational institutions?	Qualitative; "Input"	Educational institutions, Ministry of Education
Indicator 3.2	**Opportunities exist for educators to cooperate on ESD**		
Sub-indicator 3.2.1	Are there any networks / platforms of educators and/or leaders/administrators who are involved in ESD in your country?	Qualitative; "Output"	Educational institutions, relevant Ministries
Sub-indicator 3.2.2	Are ESD networks/platforms supported by the government in any way[22]?	Qualitative; "Input"	Educational institutions, relevant Ministries
OBJECTIVE 4. ENSURE THAT ADEQUATE TOOLS AND MATERIALS FOR ESD ARE ACCESSIBLE			
Indicator 4.1	**Teaching tools and materials for ESD are produced**		
Sub-indicator 4.1.1	Does a national strategy/ mechanism for encouragement of development and production of ESD tools and materials exist?	Qualitative "Input"	Relevant ministries / public authorities
Sub-indicator 4.1.2	Is public (national, sub-national, local) authority money invested in this activity?	Qualitative "Input"	Relevant ministries / public authorities
Indicator 4.2	**Quality control mechanisms for teaching tools and materials for ESD exist**		
Sub-indicator 4.2.1	Do you have quality criteria and/or quality guidelines for ESD-related teaching tools and materials that are: (a) Supported by public authorities?; (b) Approved by public authorities?; (c) Tested and recommended for selection by educational institutions?	Qualitative "Input"	Relevant ministries / public authorities
Sub-indicator 4.2.2	Are ESD teaching tools / materials available: (a) In national languages?; (b) For all levels of education according to ISCED?	Qualitative "Input"	Relevant ministries / public authorities
Indicator 4.3	**Teaching tools and materials for ESD are accessible**		
Sub-indicator 4.3.1	Does a national strategy/mechanism for dissemination of ESD tools and materials exist?	Qualitative "Input"	Relevant ministries / public authorities
Sub-indicator 4.3.2	Is public authority money invested in this activity?	Qualitative "Input"	Relevant ministries / public authorities
Sub-indicator 4.3.3	Are approved ESD teaching materials available through the Internet?	Qualitative "Input"	Relevant ministries / public authorities
Sub-indicator 4.3.4	Is a register or database of ESD teaching tools and materials in the national language(s): (a) accessible through the Internet?; (b) provided through other channels?	Qualitative "Input"	Relevant ministries / public authorities

[21] For higher education institutions: The focus is here on existing **in-service training programmes** regarding SD and ESD for university/college teachers in their own universities/colleges.
[22] Including assistance through direct funding, help in-kind, political and institutional support.

OBJECTIVE 5. PROMOTE RESEARCH ON AND DEVELOPMENT OF ESD			
Indicator 5.1	**Research[23] on ESD is promoted**		
Sub-indicator 5.1.1	Is research that addresses content and methods for ESD[24] supported?	Qualitative; "Input"	Relevant Ministries
Sub-indicator 5.1.2	Does any research evaluate the outcome of the implementation of the UNECE Strategy for ESD?	Qualitative/ Quantitative; "Input"	Relevant Ministries
Sub-indicator 5.1.3	Are post-graduate programmes available: (1) on ESD[25]: (a) for Masters level?; (b) for Doctorate level? (2) addressing ESD: (a) for Masters level?; (b) for Doctorate level?	Qualitative; "Input"	Ministry of Education; Institutions of Higher Education
Sub-indicator 5.1.4	Are there any scholarships supported by public authorities for post-graduate research in ESD: (a) for Masters level; (b) for Doctorate level?	Qualitative; "Input"	Ministry of Education; Institutions of Higher Education
Indicator 5.2	**Development of ESD is promoted**		
Sub-indicator 5.2.1	Is there any support for innovation and capacity building in ESD practice[26]?	Qualitative; "Input"	Ministry of Education; Institutions of Education
Indicator 5.3	**Dissemination of research results on ESD is promoted**		
Sub-indicator 5.3.1	Is there any public authority support for mechanisms[27] to share the results of research and examples of good practices in ESD[28] among authorities and stakeholders?	Qualitative/ Quantitative; "Input"	Ministry of Education; Governmental agencies outside education system; Institutions of Higher Education, NGOs
Sub-indicator 5.3.2	Are there any scientific publications: (a) specifically on ESD?; (b) addressing ESD?	Quantitative; "Output"	Education and research institutions; relevant Ministries; NGOs; publishers

[23] These include support from various sources, such as state, local authorities, business and non-governmental sources.
[24] E.g. concepts; formation of attitudes and values; development of competencies, teaching and learning; school development; implementation of information communications technology; means of evaluation including socio-economic impacts.
[25] ESD is addressed by substance and/or by approach.
[26] Activities may include pilot projects, action research, social learning and multi-stakeholder teams.
[27] E.g. conferences, summer schools, journals, periodicals, networks.
[28] E.g. the "participatory approach"; links to local, regional and global problems; an integrative approach to environmental, economic and social issues; orientation to understanding, preventing and solving problems.

OBJECTIVE 6. STRENGTHEN COOPERATION ON ESD AT ALL LEVELS WITHIN THE UNECE REGION			
Indicator 6.1	**International cooperation on ESD is strengthened within the UNECE region and beyond**		
Sub-indicator 6.1.1	Do your public authorities cooperate in/support international[29] networks on ESD?	Qualitative / Quantitative; "Input"	Report of relevant authorities
Sub-indicator 6.1.2	Do educational institutions/organizations (formal and non-formal) in your country participate in international networks related to ESD?	Qualitative / Quantitative; "Output"	Report of relevant authorities
Sub-indicator 6.1.3	Are there any state, bilateral and/or multilateral cooperation mechanisms/agreements that include an explicit ESD component?	Qualitative / Quantitative; "Output"	Report of relevant authorities
Sub-indicator 6.1.4	Does your Government take any steps to promote ESD in international forums outside the UNECE region?	Qualitative; "Output"	Report of relevant authorities

Do we need to keep the footnotes?!

[29] In this context, international associations, working groups, programmes, partnerships etc. means those global, regional and subregional.

Annex 3.

LIST OF DESCRIPTORS TO INDICATORS FOR ESD

Draft

The descriptors are meant to facilitate the understanding of the set of Indicators. Each descriptor is structured into (a) the reference to the indicator/sub-indicator; (b) the description of those sub-indicators that required some additional clarification of their meaning and expected reporting information; (c) the relevant quote from the Strategy; and (d) examples, i.e. good practices and case studies or references to the relevant places where these could be found [do we reapeat the structure – it is included already in the text above].

The examples provided are those available at the time of developing the descriptors. The compilation of good practices in ESD in the UNECE region were used to identify examples. Additional examples were provided by the Expert Group, therefore, the information in this field might be regarded as subjective and not representative for the entire region. Along with the progress in implementing ESD, new examples will be available to illustrate the good implementation of specific provisions of the Strategy. These new examples would be made available through the UNECE website in a user friendly way, and provided funds are available, would be structured by indicators/sub-indicators for easy of reference.

… anything else to explain? E.g. that most of the footnotes from the set of indicators are not being repeated in the set of descriptors, etc…

ISSUE 1. ENSURE THAT POLICY, REGULATORY AND OPERATIONAL FRAMEWORKS SUPPORT THE PROMOTION OF ESD

Indicator 1.1 Prerequisite measures are taken to support the promotion of ESD

Sub-indicator 1.1.1	**Is the UNECE Strategy for ESD available in your national language(s)?**
Description:	See passage below.
Relevant passage(s) from the Strategy:	42. Each country is responsible for implementing this Strategy. […] To that end, it is recommended that countries should translate this Strategy into their official language(s), and, as appropriate, language(s) of minorities, and distribute it to the relevant authorities […].
Example(s):	The text of the Strategy is available on the UNECE website in the six official languages of the United Nations, as well as in at least 24 other languages <http://www.unece.org/env/esd/Strategy&Framework.htm>.

Sub-indicator 1.1.2	**Have you appointed a national focal point to deal with the UNECE Strategy for ESD?**
Description:	The national focal point(s) (NFPs) is designated by the Government and is responsible for the follow-up to the implementation of the UNECE Strategy for ESD within their

	respective countries, as well as for dissemination of information to all the relevant stakeholders. The focal point(s) should also ensure coordination of the positions of their respective countries in the Steering Committee. Governments should inform the UNECE secretariat on any changes concerning their respective national focal points. The NFPs is also in charge of preparation of the national implementation report (NIR). The focal point could be a person or a unit. Some countries have more then one focal point, which implies that communication between them should be well organized.
Relevant passage(s) from the Strategy:	42. Each country is responsible for implementing this Strategy. […] To that end, it is recommended that countries should […] designate a focal point. 69. To ensure efficient regional governance and communication, the establishment of ESD focal points in all UNECE member States and in relevant international organizations is required. A steering committee consisting of representatives of the education and environment (or other relevant) sectors might be established to follow up the implementation of the Strategy. […].
Example(s):	The list of ESD focal points are available on the UNECE website <http://www.unece.org/env/esd/contacts.htm>.

Sub-indicator 1.1.3	**Do you have a coordinating body for implementation of ESD?**
Description:	The coordinating body is a group of people that represents key stakeholders (including the NFP for ESD); it ensures and strengthens the cooperation within and between government(s), NGO´s and other stakeholders in the field of ESD.
Relevant passage(s) from the Strategy:	47. There is a need for a coordination mechanism for implementing the Strategy at the State level, as well as for sharing information and stimulating partnerships among different actors[1]. One option is to set up a "national ESD platform" possibly under the umbrella of the councils on sustainable development or other relevant bodies, bringing together professionals from different sectors.
Example(s):	In 2005 Armenia established an inter-institutional Commission comprising representatives of different ministries, institutions, NGOs, experts on education, environmental protection and sustainable development, scientists, lecturers and others. The Commission's objective is to define and supervise national priorities for implementation of the UNECE Strategy for ESD and to develop a National Implementation Plan. Similar bodies exist in other countries, including in Lithuania, Greece, Slovenia and the Netherlands.

[1] Some countries introduced „knowledge management approach". Add a reference to VII Glossary point 63 ?.

Sub-indicator 1.1.4	**Do you have a national implementation plan for ESD?**
Description:	The UNECE Strategy should be transposed into a national implementation plan (NIP) or national action plan (NAP) for ESD. This plan should be adopted by the Government.
Relevant passage(s) from the Strategy:	48. National (State) implementation plans should serve as a core element of implementation. Countries should decide on a body that will be responsible for drafting their national implementation plan. 49. The national implementation plan should be developed with a participatory approach. Thus, all relevant stakeholders should be involved. It should take into consideration the actual situation in a country. Recognizing that countries may wish to set their own priorities and schedules for implementation in accordance with their needs, policies and programmes, the provisions of this chapter could serve as a guide for this work. National implementation plans should address objectives, activities, measures, tentative timetable, means of implementation and evaluation instruments.
Example(s):	The available Plans are accessible through the UNECE website: <http://www.unece.org/env/esd/NAP.htm>.

Sub-indicator 1.1.5	**Are there any synergies at the national level between UNECE ESD process, the UNESCO global process on the UN Decade of ESD[2], and other policy processes relevant to ESD?**
Description:	In implementing ESD at the national level all relevant international ESD-related processes and activities should be taken into account to avoid duplication and to ensure mutual benefits. NFPs for the UNECE Strategy should be encouraged to cooperate with the National Commission to UNESCO and other relevant actors (e.g. national coordinators for EU Strategy for SD, Bologna process, Global Education, Baltic 21, Mediterranean Strategy for SD, UN CSD education caucus).
Relevant passage(s) from the Strategy:	1. The mandate to develop the Strategy derives from the statement made by the UNECE Environment Ministers at their Fifth "Environment for Europe" Conference (Kiev, May 2003). The Strategy benefited from experience gained both within the region and globally. It is a contribution to and in line with the Framework for a draft implementation scheme for the United Nations Decade of Education for Sustainable Development developed by the United Nations Educational, Scientific and Cultural Organization (UNESCO) and should be used as a foundation for the regional implementation of the Decade and outcomes of the World Summit on Sustainable Development.
Example(s):	In several countries, such as Armenia, Greece, Lithuania, the Netherlands both, the NFPs for UNECE Strategy for ESD and the representatives of UNESCO National

[2] The United Nations General Assembly in its resolution 57/254 of 20 December 2002 proclaimed the 10-year period beginning on 1 January 2005 the United Nations Decade of Education for Sustainable Development.

	Commissions for ESD are represented in the national commission for ESD. The list of UNECE focal points can be found at: <http://www.unece.org/env/esd/contacts.htm> Coordinators of UNESCO National Commissions can be found at: <www.unesco.org/???> ask Aline

Indicator 1.2 Policy, regulatory and operational frameworks support the promotion of ESD

Sub-indicator 1.2.1	**Is ESD reflected in any national policy document(s)?**
Description:	Policy documents may include national strategies, plans, programmes and guidelines. References to sustainable development are increasingly common in national policies, however, ESD, the process by which we *learn* to become more sustainable, is often overlooked. This indicator is focused on policies that recognise and support learning.
Relevant passage(s) from the Strategy:	43. Effective implementation of the Strategy requires its provisions to be integrated into the planning, investment and management strategies of the State and local government for all levels of education and for all educational institutions and organizations. At the same time, the implementation should be in accordance with and benefit from other relevant State, bilateral and multilateral initiatives. The legal, economic and communication instruments should be adapted to the State's circumstances. Thus, countries would implement the provisions, as appropriate, in relation to their legislation, policies and operational frameworks. 50. Policy, legislation, operational frameworks and curricula should include and support ESD.
Example(s):	Education has a central role in the Swedish National Strategy for Sustainable Development which was launched in March 2006. This is the third version of the Government's view on sustainable development.

Sub-indicator 1.2.2	**Is ESD: (a) addressed in relevant national education legislation/regulatory document(s); and (b) included in your national curricula and/or national standards/ordinances/ requirements; at all levels of formal education, as understood by your education system in accordance with ISCED?**[3]
Description:	See passage below.
Relevant passage(s) from the Strategy:	50. 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; stimulate the development of interdepartmental and multi-stakeholder cooperation, including the establishment of consultative mechanisms, as appropriate; to integrate SD principles into the study programmes and special courses at all levels of

[3] Refer to paragraph 25 of this document.

	higher education, especially in initial teacher training; improve the provision and management of education facilities towards SD and strengthen the connection between natural, economic, political and social sciences in interdisciplinary, multidisciplinary and specialized studies. Interdisciplinary and specialized studies should be properly balanced.
Example(s):	In 2004 Armenia's *State Educational Concept of General Education* (the state curriculum and standards of secondary education) and *State Standards of Vocational Education* were adopted by the Ministry of Education and Science, in which separate sections are devoted to ESD. In accordance with the Order by the Minister of Education and Science, the course "Ecology and Sustainable development" must be introduced as a general obligatory course at all Higher Education Institutions of *Kazakhstan* from September 2008. The Higher Education Act in Sweden was amended in 2006 to stipulate that universities shall in all their activities (i.e. including education and research) promote Sustainable Development (http://www.notisum.se/rnp/sls/lag/19921434.htm). (a) Sweden's Education Act (1985:1100) stipulates that all school activity shall be carried out in accordance with fundamental democratic values and that each and every person working in the school shall encourage respect for the intrinsic value of each person as well as for the environment we all share (http://www.sweden.gov.se/sb/d/574/a/21538). (b) This aim of education for sustainable development is transformed into syllabi for courses and subjects at all levels of the Swedish school system. (http://www3.skolverket.se/ki03/front.aspx?sprak=EN). In Slovenia ESD was included in the second Article of the Act of Organization and Funding of Education: "ESD and active inclusion in democratic society which involves a deeper understanding and responsible relationship to oneself, ones health, to others, ones culture as well as others culture, to nature and social environment and future generations". The second law is the Primary School Act. In the second Article in Basic Provisions are the same contents of ESD. In the second Article, there are several goals of SD themes. In Article 60.d. there are Education plan describing the realization of Article 2. Ministry of Education and Sport prepared Guidelines for Education for Sustainable Development from Preschool to Pre-university Education for the inclusion of ESD into schools and kindergarten curricula and points to be considered in teaching in all subjects with connection to cross-curriculum themes. These themes must legally be made a component part of the educational plan in concordance with valid legislation. In the beginning the national curricula for kindergarten, Primary and secondary schools there are listed aims from the Act of the Organization and Funding Education as well as teaching methods suggested by SD Strategy. According to the development of branches and EU directions within the field of education "The Strategy of education development and qualification" (2006) was prepared for the whole biotechnical field, which was used as the basis to form educational programmes. One of the most important aims of the strategy is to include the contents and activities in biotechnical field systematically in order to create necessary knowledge and values of individuals in such a way that they will be able to contribute actively to sustainable development of the rural and urban environment. [to shorten the

	text for Slovenia] Sustainable Development Cross-Curriculum has been developed in Lithuania to be introduced since 2008/09 school year as a component of the new National Curriculum.

Sub-indicator 1.2.3	**Are non-formal and informal ESD addressed in your relevant national policy and/or regulatory document(s) and operational frameworks?**
Description:	See the explanation of the difference between 'informal' and 'non formal' in the Glossary (paragraphs 52 and 53 of this document).
Relevant passage(s) from the Strategy:	6. The aim of this 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. 30. It is important to support non-formal and informal ESD activities, since they are an essential complement to formal education, not least for adult learning. Non-formal ESD has a special role as it is often more learner-oriented, participatory and promotes lifelong learning. Informal learning in the workplace adds value for both employers and employees. Therefore, the cooperation among the different actors involved in all forms of ESD should be recognized and encouraged. 34. Governments should be supportive of non-formal and informal learning because informed citizens and knowledgeable consumers are essential in enacting sustainability measures through their choices and actions, including local Agenda 21. 55. Key actions to achieve this could be to: […] introduce and develop management systems for SD in formal educational institutions and non-formal education settings; include SD-related issues in training and re-training programmes for educators for all levels of education; and encourage educators, including those involved in non-formal and informal education, to share experiences.
Example(s):	In the Swedish Government Bill for Adult Education 2005/06:192 *Learn, grow and change* and in the *Regulation for State Grants to Liberal Adult Education* a rationale is given for State Grants to liberal adult education in 7 fields of action including "Health, sustainable development and global justice." (http://www.regeringen.se/sb/d/6312/a/60433) The international environmental conventions Armenia has become a Party to contain articles on non-formal environmental education provision, for which NGOs can also actively participate.

Sub-indicator 1.2.4	**Is public awareness in relation to ESD addressed in relevant national document(s)?**
Description:	National documents in relation to ESD may include broadcast strategies, public campaigns and criteria for supporting public awareness programmes on a range of SD issues (e.g. climate change, sustainable consumption and production (SCP),

	desertification and biodiversity). National public awareness documents may also exist for ESD per se; these would aim to promote learning in its own right.
Relevant passage(s) from the Strategy:	35. Non-formal and informal learning, including public awareness programmes, should aim to provide a better understanding of the links between social, economic and environmental issues in local and global contexts, including a time perspective. Communities, families, the media and NGOs are important actors in raising public awareness on SD. 51. Raising public awareness of SD in and through institutions of formal education as well as communities, families, the media and NGOs should be encouraged.
Example(s):	Paragraph 10 of Armenia's Constitution includes the principle of developing a pro-environmental outlook. This is supported by Armenia's Law on Environmental Education. Following the ratification of the Aarhus Convention by Armenia in 2001, 9 regional Aarhus Centres have been established in partnership with the OSCE, aimed at raising the awareness of population on different environmental issues (target issues for ESD). Becoming a Party to the UN Conventions on Biodiversity, Climate Change and to Combat Desertification, the Government of Armenia has assumed certain commitments and developed relevant Action Plans, according to which annual reports, covering also environmental education issues, are submitted to the Government and to the Secretariats. The Czech Republic's *State Programme of Environmental Education and Public Awareness* includes a paragraph on "Information, awareness and consultancy for the general public". This paragraph covers i.e. "information" (media of all types and information services for mass media, activities for general public and awareness for sustainable consumption). Public awareness is addressed in *Folkbildning of the future, its role and objectives*, a document produced by the Swedish Council of Adult Education in 2006. The text of this document, which outlines a vision for Sweden's liberal, non-formal and voluntary education system, was prepared over 117 conferences involving 8,000 people nationwide. See <http://www.folkbildning.net/>. Italy … on SCP … [to ask Michela and Paolo for text]. Slovenia has a National Environmental Protection programme with a clearly defined public awareness strategy. The Environmental Protection Act, Article 146 clearly prescribes funding schemes for programmes for raising public awareness.Countries that ratified the Aarhus Convention are committed to raising public awareness on environmental issues; this may be reflected in national documents.

Sub-indicator 1.2.5	**Does a formal structure for interdepartmental cooperation relevant to ESD exist in your government?**
Description:	A formal structure could include a joint commission/committee/working group with involvement of all relevant governmental institutions. 'Interdepartmental' means 'between state bodies', e.g. the Ministry or Ministries that hold the mandate on ESD

	should work together with other relevant Ministries and government institutions.
Relevant passage(s) from the Strategy:	10. The Strategy encourages interdepartmental, multi-stakeholder cooperation and partnerships, thereby stimulating investment of material and human resources in ESD. 46. The cooperation, shared responsibility and leadership of all relevant State bodies should be recognized as an important mechanism for good governance and be strengthened. Education and Environment Ministries, in particular, should cooperate and take the lead in initiating and encouraging the further integration of SD concerns into formal education policies, programmes and curricula at all levels and assess the implementation of the Strategy. However, close and effective cooperation with other public authorities as well as with stakeholders is also required, in particular with authorities responsible for economy. 50. Policy, legislation, operational frameworks and curricula should include and support ESD. Key actions to achieve this could be to: […] stimulate the development of interdepartmental and multi-stakeholder cooperation, including the establishment of consultative mechanisms, as appropriate; […].
Example(s):	Armenia's inter-institutional Commission for the UNECE ESD Strategy is described above in the descriptor for sub-indicator 1.1.3. A National ESD Expert Council (NESDEC) has been established together with regional working groups in Canada with the aim of developing and strengthening the capacity if senior leaders from government, business, civil society and education sector to work together to incorporate ESD into the formal, non-formal and informal education systems. The target groups of NESDAC include relevant federal government departments. Two interdepartmental agreements, one for cooperation on Environmental Education, and the second for cooperation on ESD were signed in Czech Republic between the Ministry of Environment and the Ministry of Education in 1999 and 2004, respectively. The first agreement was connected with development and implementation of the Czech Republic's State Programme of Environmental Education and Public Awareness; the other one includes aims of ESD. There is also an interdepartmental working group on environmental education and awareness under the Ministry of Environment. [Jana to check for accuracy] In Greece, the Hellenic National Committee for ESD has been established as a high level coordination body with consultative status, where the Ministers of Education, of Environment, Physical Planning and Public Works and of Development, participate together with representatives of the Hellenic National Commission of UNESCO, a few major NGOs and academics. There is a plan for its further limited expansion in the near future to include representatives of other stakeholders. The Dutch National Program on ESD 'Learning for Sustainable Development' is conducted by a steering committee that includes representatives from 7 ministries (Environment, Agriculture, Water Management, Foreign Affairs and Development Aid, Economic Affairs, Education, General Affairs (Prime-Minister); and representatives from provincial and local authorities and Water-boards. National UNESCO Commission and NCDO (National commission on sustainable

	development) serve as advisors. To enhance the voice of other stakeholders an "alliance for the Decade" serves as an advisory platform in which NGO's and other stakeholders participate (http://www.senternovem.nl/lvdo/english.asp). In Slovenia, there are two groups working on the government level to promote ESD. At the ministry of the Development, there is an interdepartmental council responsible for the SD. Part of this council specifically deals with ESD introducing ESD to general public. At the Ministry of Education, there is another interdepartmental groups responsible for including ESD in all level of formal education. Similar bodies exist in other countries, including Lithuania, … [EG members please add!].

Sub-indicator 1.2.6	**Does a mechanism for multi-stakeholder cooperation on ESD exist with the involvement of your government?**
Description:	Mechanisms for multi-stakeholder cooperation on ESD may include committees, commissions and working groups. Such mechanisms should guarantee interaction among stakeholders over the long term. As a key actor, governments should be involved in these mechanisms.
Relevant passage(s) from the Strategy:	10. The Strategy encourages interdepartmental, multi-stakeholder cooperation and partnerships, thereby stimulating investment of material and human resources in ESD. 26. 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. 33. (c) Increase cooperation and partnerships among members of the educational community and other stakeholders. Further involvement of the private sector and industry in educational processes will help to address rapid technological development and changing working conditions. Learning activities in close relation with society will add to learners' practical experience; 50. Policy, legislation, operational frameworks and curricula should include and support ESD. Key actions to achieve this could be to: [...] stimulate the development of interdepartmental and multi-stakeholder cooperation, including the establishment of consultative mechanisms, as appropriate […].
Example(s):	Following a government resolution, a "National Commission for Sustainable Development" was established in Armenia in 2002. It comprises representatives from scientific and non-governmental organizations. Following a government resolution a "National Commission for Sustainable Development" was established in Armenia 2002. The head of the Commission is Prime Minister. 10 Ministers, several members of National Assemble of RA as well as representatives from scientific, non-governmental organizations, private sector and UN are included in the Commission.

	One of the tasks of the Commission is "Promotion of SD through formal and non formal learning". Canada's National ESD Expert Council (NESDEC) and regional working groups are multi-stakeholder in their composition; their target groups include research institutes, national youth groups, teachers' federations and government officials. Interdepartmental mechanisms (included in the Interdepartmental Agreement for Environmental Education and the one for ESD, see above example for 1.2.5) in the Czech Republic include NGOs as representatives of non-formal learning institutions. The United Kingdom's Government is working with the Sustainable Development Commission to establish a group of NGOs to act as an informal 'sounding board' in relation to Government ESD initiatives in England, Wales and Northern Ireland. In Sweden multi-stakeholder engagement is ensured through formalized consultations in the preparation of all new laws as well as through temporary groups in relation to specific projects. <http://www.regeringen.se/sb/d/1522/a/13504>. A National Committee for Sustainable Development with representatives from all educational institutions as well as from government, administration and civil societal organizations was established in Germany in 2004. Its task is rather to set strategic priorities in the implementation process and political advocacy for ESD. Switzerland… [ask the NFP].

Sub-indicator 1.2.7	**Are public budgets and/or economic incentives available specifically to support ESD?**
Description:	Public spending may take the form of funding for ESD within mainstream government activity (e.g. formal or vocational education) or it may include incentives such as awards and grant schemes that support particular learning processes. These may cover whole institutional approaches (see sub-indicator 2.3.1) or specific SD themes (see sub-indicator 2.1.1.).
Relevant passage(s) from the Strategy:	74. Ensuring adequate financial means to implement the Strategy is an important precondition for its success. To assess accurately the costs of implementing measures that are necessary to achieve the objective of the Strategy and the return on this investment, it is essential to understand the value of education in introducing SD policies and practices in society. Education should be seen as an investment that will pay off in the long term. 76. Governments should consider using budgets and economic incentives to finance ESD for all forms of education, including introducing scholarships on ESD and capacity building in educational institutions. Efforts should be made to include ESD components in relevant bilateral and multilateral programmes. Partnerships may be formed and should be encouraged to seek support, including contributions in kind, from international funding agencies and the private sector.

Example(s):	Funds specifically for ESD have been disbursed through a range of United Kingdom government agencies: the Higher Education Academy supports ESD in universities; the English regions have received modest funding to support networking for sustainable schools and incorporating sustainable development in the vocational education sector. The Dutch National Program "Learning for Sustainable Development" has its own funding for ESD projects, programs and research (annual app. € 5 million.) that is contributed by ministries and regional authorities. For specific projects, participating stakeholders also contribute to the costs (an approximate of 25 % in addition to the collected funds). Besides that, the Ministry of Environment and the Ministry of Agriculture hold annual tenders for educational projects and programs. (http://www.senternovem.nl/mmfiles/Webversie%20uitvoeringsplan%20LvdO%202008-2011_tcm24-266541.pdf) Federal Agency on Education of the Russian Federation has provided support for several target projects for capacity building for ESD promotion in Higher Education Institutions (HEIs). The learning modules for education for sustainable development in HEIs were developed and implemented at the universities for the following subject areas: geography, ecology, geology, economics, chemistry, philosophy. In Slovenia the Ministry of Education prepared two separate public tenders concerning ESD. The first (Social and civic competences, 1.371.000 euros) is incentives to schools networks to work on themes concerning ESD in cooperation with other initiatives (NGO, researchers etc.) The themes are: Active citizenship; Intergeneration Harmony and active spare time; Encouraging intercultural dialogue; Recognizing and Preventing Violence; Gender Equality; Environmental Protection within the framework of ESD. This tender offered researchers to prepare new model for ESD in formal education, which should be implemented in schools and evaluated. The themes for models are: Education for Sustainable Development; Active citizenship; Health lifestyle; Encouraging intercultural dialogue; Recognizing and Preventing Violence; Gender Equality The second public tender is designed for educating the teachers on the above mentioned topics. Next school year Ministry of Education will offer every school a budget especially for ESD activities. [shorten the text] 1/3 of the themes that got thematic financing of scientific and scientific-technical activity from the state budget of Armenia deal with the main directions of sustainable development, and the environmental conventions as well. And some themes that got the base financing of scientific and scientific-technical activity touch upon such subjects, like alternative energy sources, risk factors and human health, biotechnologies. The last ones are also included in the list of priority directions of the Armenia's scientific sphere. In 2008-2010 an application study "Promote SD through formal and non formal learning" is being carried out in the Armenian State Pedagogical University. The Swedish Agency for Networks and Cooperation in Higher Education provided support to a network (HU2) of universities for a project to discuss and propose "Learning outcomes on different levels and in different disciplines in higher education

	for sustainable development" (http://www.hu2.se/nlhu2.htm). Hungary: … [see progress report – special award to support schools …] Italy: …[to contact Paolo]

Indicator 1.3 National policies support synergies between processes related to SD and ESD

Sub-indicator 1.3.1	**Is ESD part of SD policy(s) if such exist in your country?**
Description:	Sustainable development is essentially a process of learning to do things differently; therefore ESD is an important tool for achieving SD policy goals. Conversely, ESD (or learning) will be enriched through the implementation of SD policies and strategies.
Relevant passage(s) from the Strategy:	Vision: Education, in addition to being a human right, is a prerequisite for achieving sustainable development and an essential tool for good governance, informed decision-making and the promotion of democracy. Therefore, education for sustainable development can help translate our vision into reality. 13. There is a need to consider the evolving meaning of SD. The development of a sustainable society should, therefore, be seen as a continuous learning process, exploring issues and dilemmas, where appropriate answers and solutions may change as our experience increases. Learning targets for ESD should include knowledge, skills, understanding, attitude and values. 43. Effective implementation of the Strategy requires its provisions to be integrated into the planning, investment and management strategies of the State and local government for all levels of education and for all educational institutions and organizations. At the same time, the implementation should be in accordance with and benefit from other relevant State, bilateral and multilateral initiatives. The legal, economic and communication instruments should be adapted to the State's circumstances. Thus, countries would implement the provisions, as appropriate, in relation to their legislation, policies and operational frameworks.
Example:	Education represents a component of the *Estonian* National Strategy on Sustainable Development (Sustainable Estonia 21, 2005) within a course of action "Intellectual and social support to knowledge society". Education represents a component of the "Concept of Transition of the Republic of Kazakhstan for Sustainable Development for 2007-2024". A chapter on Education and Research is included in the *Lithuanian* Strategy for Sustainable development (2003). In the long term Slovenian National Economic Development Plan includes SD. ESD is mentioned as a way of inclusion of SD. The Ministry of Education and Sport prepared Guidelines for ESD from Preschool to Pre-university Education and adopted UNECE Strategy of ESD.

	One of the goals in the Swedish National Strategy for Sustainable Development states that education for sustainable development means life long learning, so education on all levels and types of education shall be permeated with a sustainable development perspective. (http://www.regeringen.se/sb/d/3142). Czech Republic's State Environmental Policy addresses ESD (SEP, see <http://www.env.cz/osv/edice-en.nsf/D19A3A3F73ABC1CBC125713800330A7C/$file/spzp_en.pdf, p. 36>): V. Instruments of Implementation of SEP of the CR 1. Increasing of Public Awareness of Environmental Issues, Environmental Education and Public Awareness High public consciousness in the area of the environment is a basic precondition and a priority for successful implementation of the State Environmental Policy, and also of the National Strategy for Sustainable Development, … ESD is also addressed in the Czech Republic' Strategy for Sustainable Development, II.4 Research and development, education, available at <http://www.mzp.cz/AIS/web-en.nsf/pages/sustainable_development_on_national_level>. [shorten the text] Italy … [to ask Michela and Paolo for text] France … [Michel text]

ISSUE 2. PROMOTE SD THROUGH FORMAL, NON-FORMAL AND INFORMAL LEARNING

Indicator 2.1 SD key themes are addressed in formal education

Sub-indicator 2.1.1	**Are key themes of SD addressed explicitly in the curriculum/programme of study at various levels of formal education?**
Description:	This question asks which key themes are addressed at different ISCED levels and if there is an emphasis on certain themes (see Appendix 1(a) for the key themes that are stated in the Strategy; there is space to indicate additional themes). The aim of this indicator is to understand the range of themes currently being addressed by national curricula, courses, and projects and seeks to identify those themes which are of critical importance for your country). For ISCED levels 5 and 6 the above mentioned themes should be included into obligatory/optional courses and/or projects implemented by higher education institutions.
Relevant passage(s) from the Strategy:	15. Key themes of SD 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. Addressing such divers themes in ESD requires a holistic approach.
Example(s):	In the UK, Scotland's *Curriculum for Excellence* addresses SD under the broad theme of Citizenship < http://www.ltscotland.org.uk/curriculumforexcellence/> whereas in England, Wales and Northern Ireland, SD is one of seven cross-curricular

	dimensions in the National Curriculum which help to give education relevance and authenticity; it is also linked formally to four statutory subjects (citizenship, design and technology, geography and science). Climate change is now identified as a topic to be studied by all secondary school pupils. See: <http://www.curriculumonline.gov.uk/Default.htm >. The UK's *National Framework for Sustainable Schools* identifies eight doorways through which schools can approach SD (Food and drink; Energy and water; Travel and traffic; Purchasing and waste; Buildings and grounds; Inclusion and participation; Local well-being; Global dimension). Although not compulsory, this framework is increasingly taken into account in the self-assessment of schools <http://www.teachernet.gov.uk/sustainableschools/index.cfm>. The UK's Higher Education Academy's ESD project has produced a 'guidance module' on sustainability called "Sowing Seeds". It consists of an introduction, indicating different levels of engagement with sustainability, a section indicating key sustainability concepts and learning outcomes by level from undergraduate to masters, and appendices showcasing accompanied by web addresses and/or contact details. At the time of writing the module is still under development; it is available at: <http://csf.plymouth.ac.uk/?q=node/585>. Key themes are included into the new National Curriculum to be introduced in *Lithuania* since 2008/09 school year. Key themes are included into the general obligatory course "Ecology and Sustainable development" for HEI in Kazakhstan. The Slovenian curriculum for formal education in primary and secondary school include some SD themes integrated in various schools subjects, and so does the Guidelines for ESD from preschool to pre-university education, integrated as cross-curricular themes. Also, there are three networks: Eco-schools, Healthy schools and As-p net UNESCO schools, where schools and kindergartens can approach SD themes through different projects e.g. innovative projects, projects financed through European Social Fund. <www:ekosola.si>

Sub-indicator 2.1.2	**Are learning outcomes (skills, attitudes and values) that support ESD addressed explicitly in the curriculum/programme of study at various levels of formal education?**
Description:	The competencies listed in Appendix 1 (b) reflect the principles of the UNECE Strategy for ESD. The learning outcomes are clustered under the four categories of competencies used by *Education for All* (learning to learn, learning to do, learning to be, learning to live and work together). The aim of this sub-indicator is to understand the range of learning outcomes and general competencies currently being addressed by curricula or courses, and the relative importance of these in your country.

Relevant passage(s) from the Strategy:	11. The Strategy encompasses the basic provisions of Education for All: Meeting our Collective Commitments[4]. 13. There is a need to consider the evolving meaning of SD. The development of a sustainable society should, therefore, be seen as a continuous learning process, exploring issues and dilemmas, where appropriate answers and solutions may change as our experience increases. Learning targets for ESD should include knowledge, skills, understanding, attitude and values. 18. Learners at all levels should be encouraged to use systemic, critical and creative thinking and reflection in both local and global contexts; these are prerequisites for action for sustainable development.
Example(s):	Complex and critical thinking is addressed explicitly in the Spanish Compulsory Schools' general aims. The Autonomous University of Barcelona, in collaboration with the Catalonia Regional School for Sustainable Consumption, has developed materials for primary and secondary schools that link learners' consumption habits and lifestyles to principles of complex and systemic thinking (e.g. multiple perspectives, diversity, global/local interdependence, uncertainty and risk). Russia's Association for Environmental Education (ASEKO) developed an interdisciplinary, practice-oriented model of "futurized" education for both pupils and teachers. Analyzing the opinions of pupils and parents, they prepared a course that addressed 'real life' as well as formal study and worked towards a whole institution approach to ESD. The course uses interactive teaching methods with an emphasis on values and attitudes. It has been implemented in schools and universities since 2002. See *Collection of Good Practices in ESD*: <http://www.unece.org/env/esd/GoodPractices/list.html#R>. The UK Government policy, *Every Child Matters* seeks to enhance the well-being of children and young people from birth to age 19. It is based on research that demonstrated how acting on young people's views brings positive outcomes including increasing a sense of citizenship and enhancing personal development. The UK's Sustainable Development Commission has looked into ways in which sustainable development can help meet the aims of this key policy document and has published *Every Child's Future Matters*: <http://www.sd-commission.org.uk/publications.php?id=578>. Learning outcomes for SD at higher education level have been addressed by the UK's Higher Education Academy's ESD project (see example under 2.1.1). ESD learning outcomes are addressed in Sustainable Development Cross-Curriculum to be introduced in *Lithuania* since 2008/09 school year. The requirements in the Sweden's Education Act (1985:1100) that include the aim of education for sustainable development (see 2.1.2 above) are transformed into syllabi for courses and subjects at all levels of the Swedish school system. (http://www3.skolverket.se/ki03/front.aspx?sprak=EN). Learning outcomes are explicitly addressed in the "Framework for Learning Global

[4] The Dakar Framework for Action, UNESCO, 2000.

	Development" (http://www.bne-portal.de/coremedia/generator/unesco/de/Downloads/Hintergrundmaterial__national/Orientierungsrahmen_20f_C3_BCr_20den_20Lernbereich_20Globale_20Entwicklung.pdf) and the policy paper "Education for Sustainable Development in Schools" (http://www.bne-portal.de/coremedia/generator/unesco/de/Downloads/Hintergrundmaterial__national/Empfehlung_20der_20Kultusministerkonferenz_20und_20der_20Deutschen_20UNESCO-Kommission_20vom_2015.06.2007_20zur_20_22Bildung_20f_C3_BCr_20nachhaltige_20Entwicklung_20in_20der_20Schule_22.pdf).

Sub-indicator 2.1.3	**Are teaching/learning methods that support ESD addressed explicitly in the curriculum/programme of study at various levels of formal education?**
Description:	This question looks at the methods used to teach ESD themes and/or to achieve ESD learning outcomes at different ISCED levels. Methods listed in the Strategy are included in Appendix 1(c) of the reporting format, with space for additional methods.
Relevant passage(s) from the Strategy:	28. […] Therefore, education should retain its traditional focus on individual subjects and at the same time open the door to multi- and inter-disciplinary examination of real-life situations. […]. 33. To be effective ESD should: […] (d) Provide an insight into global, regional, national and local environmental problems explaining them by means of a life-cycle approach and focusing not only on the environmental impact, but also on the economic and social implications, addressing both the natural environment and that modified by humans; (e) Use a wide range of participatory, process- and solution-oriented educational methods tailored to the learner. Apart from the traditional ones, these should include among other things discussions, conceptual and perceptual mapping, philosophical inquiry, value clarification, simulations, scenarios, modelling, role playing, games, information and communications technology (ICT), surveys, case studies, excursions and outdoor learning, learner-driven projects, good practice analyses, workplace experience and problem solving; […]
Example(s):	Teaching/learning methods are included in the Greek programmes of EE and ESD at various levels based on decisions of the different Education Institutions. To facilitate expansion and use of a variety of methods, MEdIES (see also under 6.1.1.) has prepared a "Handbook on Methods used in EE and ESD" available also through the internet (www.medies.net) in English, French and Arabic. In Slovenia some new teaching learning methods were incorporated in the reform of Primary Education introducing a nine year primary school. Also, new teaching/learning methods that support ESD addressed explicitly in the curriculum/programme of study at various levels of formal education will be developed by new projects (models), financed by European Social Fund, which will be developed in September 2010. Denmark …

	Ireland …

Indicator 2.2 Strategies to implement ESD are clearly identified

Sub-indicator 2.2.1	**Is ESD addressed through: (a) existing subjects only? (b) a cross-curriculum approach? (c) the provision of specific subject programmes and courses? (d) a stand-alone project? e) other approaches**
Description:	The aim of this question is to identify the way in which SD/ESD is integrated into programmes of study. It should identify the existence of national/regional strategies or programmes that support certain approaches, e.g. (a) Building SD/ESD into existing subjects (for HEIs, this means courses/disciplines; (b) Treating SD/ESD as a cross-curriculum/inter-disciplinary theme where many subjects are invited to give their contribution; (c) offering specific courses, programmes or seminars on SD/ESD (d) offering or allowing educational institutions to approach SD/ESD through specific project work, intended as a discrete activity with its own time allocation rather than being tied to specific subject areas (in HEIs these may be implemented by departments, faculties or inter-faculty structures); (e) other approaches specific to your country.
Relevant passage(s) from the Strategy:	28. ESD demands a reorientation away from focusing entirely on providing knowledge towards dealing with problems and identifying possible solutions. Therefore, education should retain its traditional focus on individual subjects and at the same time open the door to multi- and inter-disciplinary examination of real-life situations. This could have an impact on the structure of learning programmes and on the teaching methods, demanding that educators change from being solely transmitters and learners change from being solely recipients. Instead both should form a team. 33. To be effective ESD should: (a) Be addressed in two ways: (i) through the integration of ESD themes across all relevant subjects, programmes and courses; and (ii) through the provision of specific subject programmes and courses; […] 50. […] curricula should include and support ESD. Key actions to achieve this could be to: […] strengthen the connection between natural, economic, political and social sciences in interdisciplinary, multidisciplinary and specialized studies. Interdisciplinary and specialized studies should be properly balanced.
Example(s):	*(a) ESD is addressed through existing subjects* A school curriculum integrating ESD issues into schools and kindergartens was developed by the Estonian Ministry of Environment together with the Ministry of Education with support from the Netherlands Ministry of Foreign Affairs. See *Collection of Good Practices in ESD*: <http://www.unece.org/env/esd/GoodPractices/list.html#E>. *(b) ESD is addressed through a cross-curriculum approach*

	Two hundred schools in Germany participated in a federal state programme in which they were supported in developing cross-curricular approaches to ESD; for example: teachers in a public secondary school decided to teach SD-related topics according to the official curriculum in different school subjects. One topic was water ecology and pupils were involved in investigating a nearby eutrophic pond. Links between eutrophication and different causes of pollution were explored through workshops, pupils' projects, excursions and talks with experts. Pupils' suggestions on enhancing the quality of the pond were discussed with the environmental health officer of the city. Project Transfer 21 is now disseminating this and others results: <http://www.transfer-21.de/daten/materialien/Orientierungshilfe/Guidecompetences _engl_online.pdf>. SD is formally linked to four subjects in the UK's National Curriculum (see example under 2.1.1). Sustainable Development Cross-curriculum has been developed in *Lithuania* to be introduced since 2008/09 school year as a component of the new National Curriculum (see example under 1.2.2). *(c) the provision of specific subject programmes and courses* The introduction of courses on 'Global Environmental politics" at the Georgian Technical University at Bachelors and Masters level proved highly innovative. The courses were interactive, with student-led, cross-disciplinary seminars. The main aim was to educate graduates with a better understanding of critical scientific and social issues such as how resource management can help reduce social inequalities. See *Collection of Good Practices in ESD*: <http://www.unece.org/env/esd/GoodPractices/list.html#G>. The UK's National Curriculum sees SD as a cross-cutting theme (see example under 2.1.1) c) There are Educational Institutions, such as Yerevan State University, Armenian State University of Economy, Armenian State Pedagogical University, Armenian Institute of Ecology, Economy, Right of Yerevan, in the education plans of which are also included the following courses: "Sustainable Development of Human Society", "Sustainable Development and Global Security", "The Aims of Millennium Development as an important basis of sustainable development". *(d) a stand-alone project* Helianthus - Environmental Education Project works with young people and teachers in southern Italy to inform and educate them about today's crucial environmental issues. Funded through National and European contributions, the project focuses on ten issues with schools working in local networks, providing teacher training and using action research methods for self-assessment. *Collection of Good Practices in ESD*: <http://www.unece.org/env/esd/GoodPractices/list.html#I>. In Armenia an integrated course on health and safety was developed as part of a wider ESD project. Health and safety was explored in various sectors of society using case studies, environmental monitoring methods, research and emergency situations. See *Collection of Good Practices in ESD*: <http://www.unece.org/env/esd/GoodPractices/list.html#A>. d) One of our higher

	institutions, namely the Moscow State University of Economics, Statistics and Informatics, Yerevan Branch and Regional Training Center, is using some of the Holland experience on the course of "Education for Sustainable Development". An agreement between the Greek Ministry of Education, Ministry of Interior, and local authorities supports school waste recycling. This is linked to special courses and ESD materials, particularly for education on sustainable consumption and production. This scheme was introduced in response to the UNECE Strategy for ESD.

Indicator 2.3 A whole-institution approach to SD/ESD is promoted

Sub-indicator 2.3.1	**Do educational institutions adopt a "whole-institution approach" to SD/ESD?**
Description:	A "whole institution approach" means that all aspects of an institution's internal operations and external relationships are reviewed and revised in light of SD/ESD principles. Within such an approach each institution would decide on its own actions, addressing the three overlapping spheres of Campus (management operations), Curriculum (teaching/learning and research) and Community (external relationships). A whole institution approach means that the strategy of the institution, and ultimately its culture, is oriented towards sustainable development. The whole institution approach to ESD is developing in many countries and the indicator doesn't' ask "how many institutions" are choosing this approach but only if the approach is practiced by some institution in each ISCED level. This sub-indicator also asks whether the "whole-institution approach" is applied in institutions providing non-formal education (e.g. museums, art galleries, national parks, etc.) and informal education (e.g. local authorities, business, NGOs, etc.).
Relevant passage(s) from the Strategy:	29. Formal education institutions play an important role in developing capacities from an early age, providing knowledge and influencing attitudes and behaviour. It is important to ensure that all pupils and students acquire appropriate knowledge of SD and are aware of the impact of decisions that do not support sustainable development. An educational institution, as a whole, including pupils and students, teachers, managers and other staff as well as parents, should follow principles of SD. 30. It is important to support non-formal and informal ESD activities, since they are an essential complement to formal education, not least for adult learning. Non-formal ESD has a special role as it is often more learner-oriented, participatory and promotes lifelong learning. Informal learning in the workplace adds value for both employers and employees. Therefore, the cooperation among the different actors involved in all forms of ESD should be recognized and encouraged. 33. To be effective ESD should: […] (b) Focus on enabling meaningful learning experiences that foster sustainable behaviour, including in educational institutions, the workplace, families and communities; […] 54. Educators, leaders and decision makers at all levels of education need to increase

	their knowledge about education for sustainable development in order to provide appropriate guidance and support. Therefore, competence-building efforts are necessary at all levels of both formal and non-formal education.
Example(s):	In the UK, Plymouth University has adopted a whole institutional approach so that all aspects of university life support learning for sustainability. The University's Centre for Sustainable Futures works with staff from all departments to identify and integrate SD issues in their existing programmes of study and a questionnaire on students' perceptions gathered opinions and invited students to collaborate in the sustainable management of the Campus. Collaboration with the community has contributed to learning for sustainability across the region a strong concern for 'learning how to learn' is reflected in learning skills support for students and lecturers across all departments. See: <http://csf.plymouth.ac.uk>. A new (2008) law for all Universities of Greece encourages the adoption of the "whole institute approach". In Sweden most universities that have implemented Environmental Management Systems based on a Government directive to all public agencies apply a "whole-institution approach" by including education and research in addition to campus management in their environmental management system. (For example http://www.mls.adm.gu.se/ and http://www.hig.se/miljo/). Many Swedish schools are applying a "whole-institution approach" with the principles of an Environmental Management System (EMAS and ISO 14001 adjusted for school children) in their work for sustainable development. (http://www.hsr.se/sa/node.asp?node=40) The main objective of Slovenian Eco-schools is a whole school approach. This means that the eco-schools are required to prepare a strategy for all school operations thought out the school year. The strategy should include one more ESD themes approach thought different projects. The implementation of the strategy is to be constantly monitored trough self evaluation on the part the school itself as well as by random external evaluation by national coordination. School Agenda 21, a pilot project in implementing SD strategy at the school level, has been started in Lithuania in 2000. School Agenda 21 covers: integrating SD issues into school curriculum and the practice; activities towards sustainability in local community; as well as changing school management. Currently, these schools are acting as ESD consultancy centres.

Sub-indicator 2.3.2	**Are there any incentives (guidelines, award scheme, funding, technical support) that support "a whole institution approach to SD/ESD"?**
Description:	See description under 2.3.1 above.
Relevant passage(s) from the Strategy:	See relevant passages from the Strategy under 2.3.1 above.

Example(s):	In 1999 the initiative of "Sustainable Universities" was established by FORUM Umweltbildung in order to strengthen and integrate the issues of SD in the daily life of higher education institutions (HEIs) in Austria. It includes the development of a nationwide "sustainability award" for public HEIs. The main focus is on a continuous processes of "sustainable higher education" and not on temporary projects, individuals or single events. The award is divided into eight different fields of action (e.g. curricula, operations, student initiatives). Universities can submit their contribution to this contest according to their individual strengths to win the award in one particular action field related to their own opportunities. Sweden's Sustainable School Award aims to support and inspire schools from pre-primary to adult education to become sustainable schools. The requirements, set by the Swedish National Agency for School Improvement, focus on educational leadership, teacher and staff training, teaching approaches, the active role of students and cooperation with the local community. <http://www.skolutveckling.se/in_english/sustainable_development/> The foundation Stiftelsen Håll Sverige Rent awards a „Green flag" for Eco-Schools (see 2.3.1), which is the Swedish branch of the international FEE (Foundation for Environmental Education) (http://www.hsr.se/sa/node.asp?node=40) In Sweden the Government directive to all public agencies served as an incentive for universities to start implementing Environmental Management Systems. The implementation was supported with training and information by the Swedish Environmental Protection Agency. E.g. <http://www.mls.adm.gu.se/> and <http://www.hig.se/miljo/> Incentives that support a whole institutional approach in Germany are given in the context of the UN DESD. Organisations, projects and local authority districts can apply to become an official "decade project/district". A jury decides whether the application documents refer to ESD and whether the projects are innovative. Successful applicants are officially awarded and launched on the UN DESD online portal: <http://www.bne-portal.de/coremedia/generator/unesco/de/04__UN__Dekade__Deutschland/06__Dekade-Projekte/Ausgezeichnte_20Offizielle_20Dekade-Projekte.html> A whole school approach is encouraged in the UK by the publication of guideline documents. The Department for Children, Schools and Families has produced a range of guidance documents for sustainable schools including guidelines for school governors and bursars plus planning tools for senior managers including a Sustainable School Self-evaluation tool <http://www.dfes.gov.uk/aboutus/sd>. The Specialist Schools and Academies Trust has published, *Raising standards: making sense of the sustainable schools agenda* <www.ssatrust.org.uk/eshop>.

Sub-indicator 2.3.3	**Do institutions/learners develop their own SD/ESD indicators for their institution/organization?**
Description:	Developing specific SD indicators within an institution requires discussion and negotiation of what SD means in that context; it is therefore an indication that learning for sustainability is taking place. This process can take place at all ISCED levels as

	well as within non-formal groups. See also description of whole institutional approach under 2.3.1 above.
Relevant passage(s) from the Strategy:	See relevant passages from the Strategy under 2.3.1 above.
Example(s):	Thirteen Italian regions undertook a one year action research process in order to develop quality indicators for all the educational aspects covered by regional EE initiatives. The resulting set of quality indicators serves as a guideline for quality criteria in the different regions. These criteria cover many educational fields from formal to non-formal education and from information as 'public education' to participative initiatives such as Agenda 21. In Sweden the requirements of follow-up, audits, reporting and continuous improvements in the frame of Environmental Management Systems have prompted universities to develop SD/ESD indicators also education and research in addition to campus management. E.g. <http://www.mls.adm.gu.se/> and <http://www.hig.se/miljo/>.

Indicator 2.4 ESD is addressed by quality assessment/enhancement systems

Sub-indicator 2.4.1	**(a) Are there any education quality assessment/enhancement systems?** **(b) Do they address ESD?** **(c) Are there any education quality assessment/enhancement systems that address ESD in national systems?**
Description:	This question aims to identify where ESD criteria are included in quality assessment systems for formal education (for different ISCED levels) as well as for non-formal and informal education.
Relevant passage(s) from the Strategy:	45. The education sector consists of a broad field of actors with different regulatory management systems in different countries. It is also geared to people of different ages and in different positions in life. The challenge will be to address and implement necessary reform of policy-making and the operational framework of the education sector on a basis of trust, inclusivity and subsidiarity, and to encourage self-evaluation.
Example(s):	German schools are e.g. invited to become ECO schools (a FEE initiative). This invitation includes an offer of self-assessment based on an integrative view of ESD. Self-assessment covers: planning, school-management, training, school life, lessons, skills and competencies, resources, co-operation with external partners. This initial step is followed by an action-planning workshop in which responsibilities are assigned. After one year, the output of the measures is re-evaluated. See: http://lbs.hh.schule.de/umwelterz/DGU/projekte/umweltschule/index.html. Additionally, there are further initiatives that have developed criteria and tools for the assessment of ESD in diverse educational institutions, see:

	<http://www.umweltbildung.de/395.html?&fontsize=7&print=>. Although ESD is not formally assessed in the UK, the Government schools inspectorate (Ofsted) has carried out an investigation into the impact of ESD on school performance; this may well be used to inform future inspections <http://www.ofsted.gov.uk/>. Slovenian national co-ordination of Eco-schools prepares annually national criteria in accordance with international criteria. The named criteria are part of the SD themes. All eco-schools are obliged to prepare annual reports on how they pass the national criteria. If they satisfy all the relevant criteria, they are awarded green flag. The ENSI international network developed a guideline, based on case studies and comparative research, for schools that want to asses the quality of their whole institutional process toward ESD. Guidelines are translated in 14 languages and are now used by different networks of schools in different UNECE countries. <www.ensi.org>.

Indicator 2.5 ESD methods and instruments for non-formal and informal learning are in place to support changes in knowledge, attitude and practice

Sub-indicator 2.5.1	**Are SD issues addressed in informal and public awareness-raising activities?**
Description:	The indicator asks for information on activities which seek to enhance public awareness concerning SD issues.
Relevant passage(s) from the Strategy:	33. To be effective ESD should: […] (e) Use a wide range of participatory, process- and solution-oriented educational methods tailored to the learner. Apart from the traditional ones, these should include among other things discussions, conceptual and perceptual mapping, philosophical inquiry, value clarification, simulations, scenarios, modeling, role playing, games, information and communication technology (ICT), surveys, case studies, excursions and outdoor learning, learner-driven projects, good practice analyses, workplace experience and problem solving; […] 35. Non-formal and informal learning, including public awareness programmes, should aim to provide a better understanding of the links between social, economic and environmental issues in local and global contexts, including a time perspective. Communities, families, the media and NGOs are important actors in raising public awareness on SD. 37. Mass media is a powerful force in guiding consumer choice and lifestyles, especially for children and young people. The challenge is to mobilize their know-how and distribution channels to pass reliable information and key messages on SD-related issues.
Example(s):	The National Environmental Forum of Belarus aims to achieve the broadest possible involvement of all sections of society in the environmental movement. It is traditionally conducted in three stages: district (municipal) level, the regional forum and a national gala finale which includes awards for the winners of national competitions, an

	exhibition on modern technology in environmental management and protection, nature walks, trade fairs, stalls and a gala concert. See *Collection of Good Practices in ESD*: <http://www.unece.org/env/esd/GoodPractices/list.html#B>. In Lithuania a weekly radio session "Only One Planet" on the national radio broadcast was allocated for SD issues in 2002-2006; the topic is covered by a weekly session "A Gate to Knowledge" in 2006-2008. From the start of the 'local agenda 21' movement in the Netherlands on several web-sites and in several magazines the public is informed about SD issues. Towns and villages compete in an SD-monitor: the Local Agenda 21–meter (www.duurzaamheidsmeter.nl/english). Other examples of such public oriented sources of information are: <www.earthday.nl> and <www.insnet.org/nl> (also in English), or the campaigns of combined NGOs in the 'HIER-campaign' on Climate Change <www.hier.nu>.

Sub-indicator 2.5.2	**Is there any support for work-based learning (e.g. for small companies, farmers, trade unions, associations), which addresses SD issues?**
Description:	The sub-indicator asks for both the existence of work-based learning experiences, which address SD issues and the existence of incentives or other forms of support on a national or regional level.
Relevant passage(s) from the Strategy:	38. All sectors of the workforce can contribute to national, regional and global sustainability. The development of specialized training programmes to provide professionals and decision makers with the knowledge and skills to contribute to SD has been identified as a critical component of education for sustainable development.[5] 39. Thus, vocational and continuing education have a very important role to play and should therefore be offered to decision makers and all professionals, especially those with a role in planning and management. It should be aimed at building knowledge and awareness of SD. Continuing education has two main activity areas: (a) upgrading knowledge and skills; and (b) providing new competencies needed in different professions and in different situations. Continuing education is one of the areas that would benefit from cooperation among the education sector, stakeholders and the community at large. 52. Professional skills and knowledge of sustainable development should be improved continuously and, consequently, be part of the lifelong learning of individuals including those in sectors such as public administration, the private sector, industry, transport and agriculture. The development of new knowledge and the need to introduce new skills in order to give more specific substance to the concept of SD will remain a constant need, as many areas of expertise are constantly developing. 53. Key actions to achieve this could be to: offer SD-related learning opportunities in continuing education for professionals, including those in planning, management and the mass media; encourage and support community-based SD-awareness-raising activities; develop cooperation with NGOs and support their educational activities;

[5] See also Framework for a draft implementation scheme for the United Nations Decade of Education for Sustainable Development.

	promote cooperation among formal educational institutions and non-formal organizations as well as informal activities; encourage the media to inform and debate issues for SD to reach the general public.
Example(s):	Over a one-year period (2004-5) in Armenia, 103 deputies, parliamentary experts, members of the Constitutional Court and deputy ministers received a training session on sustainable development. A temporary parliamentary commission brought together members of the government and opposition and resulted in SD concerns being reflected in the new draft Constitution. The process was covered by the media thus raising wider public awareness. See *Collection of Good Practices in ESD*: <http://www.unece.org/env/esd/GoodPractices/list.html#A>. The Greater Expectations Project in the South West of England (UK) developed an accredited course called Smart Business Thinking which included systems thinking, learning about learning and recognising values. Employees were trained to coach their colleagues through various learning programmes with these SD principles in mind. It has become part of the specification for some European Union-funded projects to support general work-based learning in the region. Trainings on organic farming are organized in *Lithuania* since 2005 via Regional Centres for Long-term Vocational Training of Farmers <http://www.zum.lt/mmc/index_english_centres.htm>. To support businesses and their organisations in CSR efforts a national platform MVO (Corporate Social Responsibility) was established to help with information, subsidies, good practices, conferences, knowledge and research. In the Netherlands you can find information on <http://www.mvonederland.nl/english/>. Sakhalin State University, working in co-operation with the UK NGO Living Earth Foundation and the Sakhalin Energy Investment Company has established a Chair for Sustainable Development with an SD Unit that conducts a wide range of community projects in Sakhalin. See: <http://www.livingearth.org.uk/russia_programmes/sakhalin_island/sakhalin_island_sustainable_development.html>. More than 500 examples of good practice ho companies managed to motivate their employees to contribute to SD are available through an online-database: <www.mimona.de>. Write a generic one on corporate social responsibility … Business/economic forum …

Sub-indicator 2.5.3	**Are there any instruments (e.g. research, survey, etc.) in place to assess the outcomes of ESD as a result of non-formal and informal learning?**
Description:	Assessing the results of non-formal and informal education presents a serious challenge. For this reason, the sub-indicator asks for details of efforts that have been made to evaluate the outputs and outcomes of these activities.
Relevant	60. Key actions to achieve this could be to initiate and promote research on and

passage(s) from the Strategy:	development of: […] the economic effects of and incentives for ESD; ways of including aspects of SD and their local context in different subjects, giving priority to research that brings together the different dimensions of SD; indicators and evaluation instruments for ESD; and share the results of research and examples of good practices.
Example(s):	During every second year in Greece, Elliniki Etairia (The Hellenic Society for the protection of the environment and cultural Heritage) makes a large sample survey on the knowledge, understanding and attitudes of the general public on environmental and SD issues (with similar methodology to Eurobarometers); this looks specifically for correlations with major events and campaigns. One of the popular methods to "measure" the outcome of ESD in SD behavior is the "footprint method". In several applications this is found in instruments such as <www.wwf.be/eco-footprint/nl> or <www.duurzamevoetafdruk.nl/en/cms/home.asp> in the Dutch language. More examples of international experiences in footprint methodology can be found on <www.footprintnetwork.org>. Research on long term effects of education is very seldom found. As result of long history of Environmental Education in the Netherlands the Dutch Field Study Organization carried out an outstanding research together with Universities of Utrecht and Wageningen to asses change in knowledge, attitude and behavior in students that attend EE courses 1, 7 and 15 year ago. This report can be ordered on: <http://www.veldwerknederland.nl/overzicht19#A476>. UK – evaluates the outcome of learning projects in National parks … (Paul!)

<u>Indicator 2.6 ESD implementation is a multi-stakeholder process</u>

Sub-indicator 2.6.1	**Is ESD implementation a multi-stakeholder process?**
Description:	See the passages below.
Relevant passage(s) from the Strategy:	26. 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. 36. [….] Partnerships among NGOs, governments and the private sector would add significant value to ESD. 73. Relevant stakeholders, including 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 should be invited to define their priorities and take responsibility for implementing and following up the Strategy.

Example(s):	**"**Making plans: Beginning by Understanding" was a four year programme of multi-stakeholder learning in Spain. Under the Ramsar Convention on Wetlands, Spain developed a National Plan on CEPA (Communication, Education & Public Awareness) was developed. During the process the 'P' for public became 'P' for participation because of the way the process developed. Seminars involving managers, educators, administrators, NGOs, academics and private enterprises. As a result of these seminars, sustainable resource management was recognised as a continual learning process. See *Collection of Good Practices in ESD*: <http://www.unece.org/env/esd/GoodPractices/list.html#S>. GEDUC (Global/General Education University Association) runs a programme in French-Swiss and Swiss Universities comprising 'meta-courses' where students and tutors from different disciplines meet to discuss social/environmental issues which are inter-disciplinary in nature. Stakeholders in this ESD programme also include civil society organisations and former students. *Collection of Good Practices in ESD*: <http://www.unece.org/env/esd/GoodPractices/list.html#S> and the GEDUC website: < http://www.geduc.org/projets/metacours.html >. The Baltic University Programme (BUP) coordinated by Uppsala University, Sweden since1991, involves national and local TV companies in Finland, Latvia and Poland; municipalities/local administrations, the Union of Baltic Cities and NGOs. <http://www.balticuniv.uu.se/>. The UK Government has established an NGO 'sounding board' to test their ESD initiatives (see example under indicator 1.2.6). MIO-ECSDE (the Mediterranean Information Office for Environment, Culture and Sustainable Development) has been facilitating since 2002 the Secretariats of two "Circles": COMPSUD (Circle of Mediterranean Parliamentarians on Sustainable Development) and COMJESD (Circle of Mediterranean Journalists on Environment and Sustainable Development) which have as one of their objectives the thorough information-education of their members and generally of Members of Parliament and journalists respectively on critical issues of Sustainable Development. Many meetings (almost on an annual basis) have already taken place. Efforts are made for the establishment of a third similar Circle for women's organisations on the agenda of which informal ESD will be central. The UN DESD in Germany is organised as a multi-stakeholder process, see 1.2.6 <www.bne-portal.de>.

ISSUE 3. EQUIP EDUCATORS WITH THE COMPETENCE TO INCLUDE SD IN THEIR TEACHING

Indicator 3.1 ESD is included in the training[6] of educators[7]

Sub-indicator 3.1.1.	**Is ESD a part of educators' initial training?**
Description:	Initial educators' training means studies undertaken by new teachers/lecturers/trainers to obtain the required licence/certificate/diploma in order to be a qualified teacher. Some lecturers may be required to follow ESD-related courses as part of their PhD studies. (Also, see passages below)
Relevant passage(s) from the Strategy:	"31. Appropriate initial training and re-training of educators and opportunities for them to share experiences are extremely important for the success of ESD. With heightened awareness and knowledge on sustainable development and, in particular, SD aspects in the areas where they work, educators can be more effective and lead by example. Training should also be closely linked to the relevant research findings on SD." 54. Educators, leaders and decision makers at all levels of education need to increase their knowledge about education for sustainable development in order to provide appropriate guidance and support. Therefore, competence-building efforts are necessary at all levels of both formal and non-formal education. 55. Key actions to achieve this [develop the competence within the education sector to engage in ESD] could be to: stimulate competence development for staff in the education system, including actions for the leaders to increase their awareness of SD issues; develop criteria for validating professional competence in ESD; introduce and develop management systems for SD in formal educational institutions and non-formal education settings; include SD-related issues in training and re-training programmes for educators for all levels of education; and encourage educators, including those involved in non-formal and informal education, to share experiences."
Example(s):	There is an EE/ESD course in the 2-year postgraduate intra-university science (chemistry) teaching programme (DICHINET) where three Greek Universities (the University of Athens, the University of Thessaloniki and the University of Ioannina) cooperate. The course leads to an MSc with possibilities to continue for a Doctorate. Approximately half of the students every year are educators, already working in primary or secondary schools who obtain paid 'leave of absence' (by the Ministry of Education or their employers in the case of private schools) in order to upgrade their knowledge in this field. A pilot course "Ecology and Sustainable Development" was introduced in 2008 within the bachelor study programme at the Pavlodar State Pedagogical Institute in Kazakhstan. In Sweden SD/ESD is introduced within in initial teacher training in optional and compulsory courses and most institutions for teachers' training co-operate or use

[6] ESD is addressed by content and/or by methodology.
[7] The category of educators includes "teachers, lecturers, trainers and all other professionals with educational tasks, as well as voluntary education leaders" (see the Guidance for reporting).

	materials from the Global School for education of global sustainable development <http://www.denglobalaskolan.com/>.

Sub-indicator 3.1.2.	**Is ESD a part of the educators' in-service training?**
Description:	Educators who are already involved in formal, non-formal and informal education should develop appropriate competences for implementing ESD in all levels and forms of education. Within this training, the content of SD (key themes) and methodology should be equally important. Even experienced teachers and those working in higher education institutions require in-service programmes so that they can revise/update their knowledge and practice in this area.
Relevant passage(s) from the Strategy:	See relevant passages from the Strategy under 3.1.1 above.
Example(s):	In Armenia an integrated course for teachers (both school and HEI) was developed for the period of 2005-2008 to provide relevant knowledge and practices in the field of health and safety. It includes (a) review of international experience; (b) the establishment of a work plan and a syllabus; (c) the organization of training tutorials and use of active teaching methods. Teaching materials and guidelines were developed and published. Annual in-service training sessions are being organized in Slovenia for teachers of eco-schools, health promoting schools, UNESCO associated schools. In-service training program for teachers of secondary schools on climate change issues in 2005-2007 was delivered in 5 Central Asian countries: Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan by the international NGO – CA Regional Environmental Centre (CAREC) in cooperation with the UK NGO "Field Studies Council". In-service training program for school teams established in *Lithuania* by the Ministry of Education and Science since 2006 as the main activity of the national ESD network. The program is leading by the group of university researchers and advanced teachers.

Sub-indicator 3.1.3.	**Is ESD a part of training of leaders and administrators of educational institutions?**
Description:	The sustained implementation of ESD in any institution will rely on the leadership and management of that institution. Leadership and administrative staff of educational institutions should develop appropriate competences for implementing ESD according to their responsibilities (please also refer to the description 2.3.1 and passages quoted under 3.1.1).
Relevant passage(s)	See passages 54 and 55 from the Strategy under 3.1.1 above.

from the Strategy:	
Example(s):	Annual in-service training sessions on sustainable school management are being organized in Slovenia for teams of kindergartens and schools involving both teachers and technical staff (principals, cleaners, cookers, housekeepers). The UK's Centre for Excellence in Leadership has published Leadership for sustainability: Making sustainable development a reality for leaders. See: <www.centreforexcellence.org.uk>. During 2000-2003, seminars were organized and toolkits developed by Forum for the Future (UK NGO) for senior management of higher education institutions. The aim of the training was to empower senior management to structure sustainability into strategic and operational planning processes, research policies and curriculum planning. *Collection of Good Practices in ESD*: <http://www.unece.org/env/esd/GoodPractices/list.html#U>. In Sweden also leaders and administrators have received basic training of SD/ESD in some universities within Environmental Management systems. e.g. <http://www.mls.adm.gu.se/> and <http://www.hig.se/miljo/>. In Germany, e.g. more than 150 multipliers participate in training programmes that empower them to assist educational organizations to put ESD into action / to enhance organizational planning in conjunction with ESD (<http://www.transfer-21.de/index.php?p=230>; <http://www.bne-ganztagsschule.de/>).

Indicator 3.2 Opportunities exist for educators to cooperate on ESD

Sub-indicator 3.2.1.	**Are there any networks / platforms of educators and/or leaders/administrators who are involved in ESD in your country?**
Description:	Networks are an important resource for ESD; they enable the sharing of experience and good practices, promote discussion and the development of innovation and facilitate peer learning at all levels. Networks may be based on SD themes, ISCED levels, localities or they may seek to work across traditional boundaries. Networks/platforms can also function as virtual meeting places using information and communication technology.
Relevant passage(s) from the Strategy:	[…] 55. Key actions to achieve this [develop the competence within the education sector to engage in ESD] could be to: […] and encourage educators, including those involved in non-formal and informal education, to share experiences."
Example(s):	[To group examples per ISCED levels and provide 1-2 examples per level!] A Forum of University Teachers in Czech Republic gathers those involved in ESD on university level and also invites other stakeholders to participate in the regular meetings (conferences). The forum was established for interdisciplinary dialogue on university

	level in 1998. website …? The South West Learning for Sustainability Coalition is a regional network in the UK that brings together educators from all levels of education and all sectors covering formal, non-formal and informal education. Information is shared each month and occasional meetings are held by video-conference. See: <www.swshaper.net>. PEEKPE is the Panhellenic Union of Educators on EE and ESD, with .approximately 2000 members and many activities in Greece, including training seminars <www.peekpe.gr>. National ESD network was established in Lithuania in 2006 involving school teams (teachers, administration) and university researchers interested in SD/ESD. Website …? Slovenian national network of coordinators of the Eco-schools. Website …? United Kingdom: Higher education partnership for sustainability in 2000-2003. Website …? Sustainability Integration Group Network (SIGnet). Website …? Eco-Counseling network (STEP). Website …? National network of Eco-schools. Website…? Denmark: <www.uboportalen.dk>. Norway: <www.miljolare.no>. Poland: <www.OAI.pl>. The Netherlands: <www.dho.nl> for ESD in Higher Education and <www.duurzamepabo.nl> for ESD in teacher education. MEDIES <www.medies.net >. A Centre for learning of SD is being established in Gotland, Sweden to contribute to knowledge development in countries with greatest poverty. <http://www.sida.se/sida/jsp/sida.jsp?d=137&a=33906&language=en_US>. Many school teachers are co-operating with the Global School <http://www.denglobalaskolan.com/>. There is also the HU2- network for sustainable development in higher education <http://www.hu2.se/>. Apart from the German examples mentioned in section 3.1.3, there is e.g. a network for institutions of higher education: <http://www.eco-campus.net/>.

Sub-indicator 3.2.2.	**Are ESD networks/platforms supported by the Government in any way?**
Description:	Support from governments and/or local authorities may include assistance through direct funding, in-kind help, political and/or institutional support. This may be important in providing continuity for some networks. Under this sub-indicator you also should mention those national activities that are based on international networks (e.g. Eco Schools).
Relevant passage(s) from the Strategy:	43. Effective implementation of the Strategy requires its provisions to be integrated into the planning, investment and management strategies of the State and local government for all levels of education and for all educational institutions and organizations. At the same time, the implementation should be in accordance with and benefit from other relevant State, bilateral and multilateral initiatives. The legal, economic and communication instruments should be adapted to the State's circumstances. Thus, countries would implement the provisions, as appropriate, in relation to their legislation, policies and operational frameworks. 47. There is a need for a coordination mechanism for implementing the Strategy at the State level, as well as for sharing information and stimulating partnerships among different actors[8]. 75. The cost of implementing this Strategy should, in general, be borne by each country. Governments should therefore ensure that appropriate resources are available.[…]
Example(s):	[To classify according to the type of support!] The National Network of Centres for Environmental Education and Public Awareness is a joint programme carried out by Pavučina - the Association of Centres for Environmental Education, the Czech Union for Nature Conservation, and since 2004, STEP - the Network of Ecological Advisory Centres. The Programme is supported by the Czech Ministry of the Environment (MŽP) through a public contract. In 2001 the Czech government approved the *State Programme for Environmental Education and Public Awareness*. Since then the Ministry of the Environment has issued a call for project contracts based on the State Operational Plan for the current EVVO programme. See <http://www.mzp.cz/AIS/web-pub.nsf/$pid/MZPMNF7YNKJQ>. The PEKPEE national network on EE and ESD (see also under sub-indicator 3.2.1.) is supported by Greek national and local authorities on a project/activity basis. National ESD network in Lithuania has a permanent financial support by the Ministry of Education and Science. Slovenian national network of coordinators of the Eco-schools is supported by the Government 10 % and local communities - 20%. ASP net schools are supported by National Institute of Education, which is financed by the Ministry of Education.

[8] Some countries have introduced the "knowledge management" approach.

	Higher education partnership for sustainability in 2000-2003 supported by the UK higher education funding councils (HEFCE, SHEFC, HEFCW, DELNI), Department of Transport and other miscellaneous sources and matched funding. Sustainability Integration Group Network (SIGnet) supported by the Department for Education and Skills. National network of Eco-schools: supported by the Government more than 40%. The web-portal <www.uboportalen.dk> is supported by the Danish Government. In Norway the website <www.miljolare.no> is supported yearly from the Directorate for Education and Training, as well as by several other institutions that support the programme in varying amount. Three networks are supported by the Dutch program Learning for Sustainable Development: DHO (Sustainability in Higher Education); Duurzame Pabo (ESD in teacher colleges); duurzaam MBO (Sustainability in Vocational Training and Further Education: <http://www.duurzaammbo.nl/dmbo/web/>. In Sweden the Centre for learning of SD (see 3.2.1) is supported by the Swedish International Development Agency (Sida) <http://www.sida.se/sida/jsp/sida.jsp?d=137&a=33906&language=en_US>. The Swedish Agency for Networks and Cooperation in Higher Education provided support for the project to develop learning outcomes in higher education (see 1.2.7) <http://www.hu2.se/nlhu2.htm>.

ISSUE 4. ENSURE THAT ADEQUATE TOOLS AND MATERIALS FOR ESD ARE ACCESSIBLE

Indicator 4.1 Teaching tools and materials for ESD are produced

Sub-indicator 4.1.1	**Does a national strategy/ mechanism for encouragement of development and production of ESD tools and materials exist?**
Description:	In any country, ESD will be enhanced by appropriate tools and materials and this may be facilitated by a national strategy in this area. Materials produced in cooperation with international organizations can be also included. Governments (ministries of education, environment, and others) should be aware of the range of materials being produced so that they can support the sharing of experience in relation to these materials.
Relevant passage(s) from the Strategy:	33. To be effective ESD should: […] (f) Be supported by relevant instruction materials, such as, methodological, pedagogic and didactic publications, textbooks, visual aids, brochures, cases studies and good practices, electronic, audio and video resources. 56. Materials for ESD at all levels need to be developed, both for general courses and specialist education and for self-study and be adapted to the local conditions and needs. 57. 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, especially in local languages; encourage the development and use of electronic, audio, video and multi-media resources and visual aids for both learning purposes and sharing

	information; facilitate access by electronic means and the Internet to resources and information relevant to ESD; ensure coherence between materials for formal, non-formal and informal learning, develop relevant dissemination strategies.
Example(s):	[To look for mechanisms and not for projects!!!! Subsidy systems …] There are two schemes for the encouragement of the production of ESD tools and materials in Greece: (a) there are occasional open calls for the production of such materials. The most recent one, in 2008, addressed ESD material for protected areas, national parks, etc. for educators, students, rangers and the wider public; (b) there are more than 50 EE/ESD Centers (KPE) throughout Greece, corresponding to more or less one per each prefecture of Greece, supported by the Ministry of Education and local authorities. In these centers, schools can spend one or more days working on ESD projects, visiting protected areas in the vicinity, etc. These centers are supported to produce the material they need and consider appropriate for carrying out the EE/ESD programmes in their area. Romanian national health education programme aims at ensuring sustainable national prevention programmes to children, adolescents and youth (aged 7 to 18/20) in Romanian schools in order to develop responsible attitudes and behaviors. See *Collection of Good Practices in ESD*: <http://www.unece.org/env/esd/GoodPractices/list.html#R>.

Sub-indicator 4.1.2	**Is public (national, subnational, local) authority money invested in this activity?**
Description:	Governments have a key role in ensuring that appropriate investments are made in the production of ESD tools and materials. Governments may undertake to provide resources themselves, in cooperation with donors or by providing a strategic framework that encourages activity by the private and/or voluntary sectors. Such developments could include translation as appropriate, dissemination and the exchange of information between different national governmental bodies (ministries, agencies, other authorities) and may refer to budgets at all the levels of governance.
Relevant passage(s) from the Strategy:	See relevant passages from the Strategy under 4.1.1 above.
Example(s):	In Slovenia a public tender is organized and support is provided by the Ministry of Education and the Ministry of Environment for producing educational materials and tools, distributing the materials and tools free of charge and organizing workshops for teachers, where they can learn how to use new materials and tools. In the Netherlands both Ministries of Agriculture and of the Environment have an annual tender procedure for developing projects and materials on ESD and EE. The Ministry of Foreign Affairs has a tender for Development Education, which addresses lot of ESD themes.

Indicator 4.2 Quality control mechanisms for teaching tools and materials for ESD exist

Sub-indicator 4.2.1	**Do you have quality criteria and/or quality guidelines for ESD-related teaching tools and materials that are: (a) supported by public authorities? (b) approved by public authorities? (c) tested and recommended for selection by educational institutions?**
Description:	For (a), "supported" means "developed using public money". By "quality" we mean that ESD tools and materials take into consideration the content, methodology and design (including the environmental impact of production) as well as processes to review effectiveness. Such criteria may be developed for use at national, sub-national or local level. In different countries of the UNECE region, different schemes exist for producing, adopting and/or testing and recommending materials. In all cases, Governments should: - encourage the development of quality criteria and/or quality guidelines for ESD-related materials; - encourage mechanisms/conditions for assessment and testing the ESD-related materials;
Relevant passage(s) from the Strategy:	32. Teaching and learning in ESD are greatly enhanced by the content, quality and availability of instruction materials. Such materials, however, are not available in all countries. This is a problem for entire sector of formal education as well as non-formal and informal learning. Therefore considerable efforts should be devoted to developing and reproducing them. Coherence between the instruction materials of formal and non-formal education should be encouraged and the challenge is to ensure that they are relevant to SD and locally affordable.
Example(s):	40 (EU and EECCA) countries: Eco-schools progamme includes quality criteria for ESD materials and toolkit (include reference; website…?). The UK Council for Environmental Education produced a set of guidelines for the production and content of educational materials. (website …?) The Dutch organization for curriculum development (SLO) prepared a handbook on ESD in which it is described what ESD could be in a "free" curriculum, including in the development of materials: <http://www.slo.nl/over/maatschappelijk/themas/duurzameontwikkeling/> (also available in English soon).

Sub-indicator 4.2.2.	**Are ESD teaching tools/materials available: (a) in national languages? (b) for all levels of education according to ISCED?**
Description:	To ensure their effectiveness, ESD materials and tools should be made available in national languages and local languages where appropriate. This will facilitate access to materials at all ISCED levels as well as local communities, NGOs, academia and mass media.

Relevant passage(s) from the Strategy:	21. ESD should take into account diverse local, national and regional circumstances as well as the global context, seeking a balance between global and local interests. 56. Materials for ESD at all levels need to be developed, both for general courses and specialist education and for self-study and be adapted to the local conditions and needs. 57. 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, especially in local languages […]; ensure coherence between materials for formal, non-formal and informal learning […].
Example(s):	Slovenian national magazine on ESD in kindergartens and schools. [further specify the example] Magazine and newsletters of Eco-schools in European countries. The GREEN PACK, a multi-medium curriculum kit on environmental protection and sustainable development for primary school, was initiated by the Regional Environmental Centre for Central and Eastern Europe (REC) in 2001. It was translated into national languages of Albania, Azerbaijan, Bosnia and Herzegovina, Bulgaria, Czech Republic, Hungary, Macedonia, Montenegro, Poland, Russian Federation, Serbia, Slovakia and Turkey (see example under 6.1.1). Educational set on climate change for secondary schools (5 posters, CD, video, manual for teachers) was produced by CAREC in cooperation with the NGO "Field Studies Council" (UK) in 2005-2006 for Central Asia at the first stage - in Russian, and according to the countries' request - in 2007 translated into 5 Central Asian languages – Kazakh, Kyrgyz, Tajik, Turkmen and Uzbek, and disseminated in pilot national schools.

Indicator 4.3 Teaching tools and materials for ESD are accessible

Sub-indicator 4.3.1.	**Does a national strategy/mechanism for dissemination of ESD tools and materials exist?**
Description:	Governments can ensure accessibility to ESD tools and materials (e.g. via libraries, the internet, educational centres, conferences, workshops). A national strategy/mechanism for dissemination of ESD tools and materials should facilitate access to these materials for educators and other concerned actors at all ISCED levels and may include non-formal and informal education. The effective dissemination of these materials may be achieved by amending existing national provisions for dissemination of educational tools and materials. This sub-indicator asks for the description of any such strategy/mechanism and whether it covers all ISCED levels.
Relevant passage(s) from the Strategy:	57. 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, especially in local languages; encourage the development and use of electronic, audio, video and multi-media resources and visual aids for both learning purposes and sharing information; facilitate access by electronic means and the Internet to resources and information relevant to ESD; ensure coherence between materials for

	formal, non-formal and informal learning, develop relevant dissemination strategies.
Example(s):	In the Czech Republic the dissemination is done through the PAVUCINA network of NGOs that includes some 100 organizations sharing educational products, and produces journal Bedrnik for support teachers in the field of environmental pedagogy. Tools and materials for different educational institutions are online accessible on a website of a NGO <http://www.umweltbildung.de/materialien.html>. Furthermore, materials for schools are available in a database which has been established in conjunction with the federal-state programme "transfer 21". The programme aimed to disseminate ESD in 10% of the grammar schools of the participating federal states <http://www.transfer-21.de/index.php?p=40>.

Sub-indicator 4.3.2.	**Is public authority money invested in this activity?**
Description:	Governments can support the dissemination and sharing of tools and materials through a variety of means (e.g. websites for practitioners, information centres, conferences). This may include dissemination among educators or the exchange of information between different national governmental bodies (e.g. ministries, agencies, other authorities) at all levels of governance. Dissemination can be supported directly with public money or in cooperation with donors; state funding may also be used to stimulate dissemination and sharing by voluntary and/or private sector organizations.
Relevant passage(s) from the Strategy:	57. 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, especially in local languages; encourage the development and use of electronic, audio, video and multi-media resources and visual aids for both learning purposes and sharing information; facilitate access by electronic means and the Internet to resources and information relevant to ESD; ensure coherence between materials for formal, non-formal and informal learning, develop relevant dissemination strategies. 76. Governments should consider using budgets and economic incentives to finance ESD for all forms of education, […].
Example(s):	Moldovan Government supported the establishment of a Centre for Environmental information. (website …?) Norwegian Environmental Education project serves as a tool for ESD. The Environmental Education network functions as a meeting place for schools, research institutions and public management, and it provides continual support to schools. *Collection of Good Practices in ESD*: <http://www.unece.org/env/esd/GoodPractices/list.html#N>. See under sub-indicator 4.1.1. about the support scheme for materials produced on EE/ESD in Greece. The Government of Tajikistan in cooperation with OSCE supported establishing Centre for Environmental Education. (website …?)

	The "Learning for Life" Centre in Uzbekistan works to assist the transition from Environmental Education to ESD with the involvement of the Ministry of Education, UK NGO FSC and Uzbek NGO Atrof-Muhit va soglom hayot. The objective is to support the process of introducing ESD in Uzbekistan by means of the achievements of modern technology and new ideas on environmental protection, e.g. to translate and adapt the book *From Environmental Education to Education for Sustainable Development* by F. Webster (FSC UK). *Collection of Good Practices in ESD*: <http://www.unece.org/env/esd/GoodPractices/list.html#U>. (check and move!!! maybe to 6.1.3)

Sub-indicator 4.3.3.	**Are approved ESD teaching materials available through the Internet?**
Description:	Governments should enable free access through the internet of teaching materials for all concerned actors (educators, learners, individuals and organizations). Teaching materials produced by international programmes can also be disseminated directly via the internet.
Relevant passage(s) from the Strategy:	57. 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, especially in local languages; encourage the development and use of electronic, audio, video and multi-media resources and visual aids for both learning purposes and sharing information; facilitate access by electronic means and the Internet to resources and information relevant to ESD; ensure coherence between materials for formal, non-formal and informal learning, develop relevant dissemination strategies.
Example(s):	[Concerned about the "approved" material … add a clarification on the "international" ones? in the description ...] The National Network of Centres for Environmental Education and Public Awareness is a joint programme carried out by Pavučina - the Association of Centres for Environmental Education, the Czech Union for Nature Conservation, and since 2004, STEP - the Network of Ecological Advisory Centres. The Programme is supported by the Czech Ministry of the Environment (MŽP) through a public contract. In 2001 the Czech government approved the *State Programme for Environmental Education and Public Awareness*. Since then the Ministry of the Environment has issued a call for project contracts based on the State Operational Plan for the current EVVO programme see <http://www.mzp.cz/AIS/web-pub.nsf/$pid/MZPMNF7YNKJQ>. The UK's Carbon Detectives' Kit is a website designed to allow pupils to calculate the impact of their school in terms of carbon emissions. The 'carbon footprint' per pupil is calculated and presented with different levels of detail and actions are encouraged for pupils and whole school management. <www.carbondetectives.org.uk>. Denmark's DESD web-site <uboportalen.dk>. Finland's ENO-Environment online – A global virtual school and portal for SD. (Website …?) Polish initiative on geology and ecology Internet-based lessons provides for making

	widely available lessons on geology and ecology issues accessible from the Geological Museum website. The lessons target pupils from various levels of the educational system, namely from the primary to the secondary level. The Internet-based lessons were developed to facilitate regular lessons taking place in school computer labs. The innovative graphic design of the website, as well as the high quality of pictures presented there, allow pupils and teachers to further use the material made available for their school lessons. The website contains a full set of internet-based lesson plans. The teachers using the internet-based lessons may receive electronically the lesson plans and the tests for pupils. *Collection of Good Practices in ESD*: <http://www.unece.org/env/esd/GoodPractices/list.html#P>. Slovenian web-site on eco-schools - <www.ecosola.si> and international web-site on eco- schools – <www.eco-schools.org>. Website on ASPnet šole: UNESCO ASPnet <www.unesco-asp.si>; R.A.V.E. SPACE - <http://www.rave-space.org/>. Links are available on website of Ministry of Education and Sport <http://www.mss.gov.si>. The REC-CEE's Green Pack educational kit. (Website link!) WWF-UK: "Learning for Sustainability" – pupil online discussion. (Website link!) In Sweden materials are available through the Global school. (see 2.6.1) <http://www.denglobalaskolan.com/>. MIO-ECSDE (www.mio-ecsde.org) facilitates the Mediterranean Initiative on Education for Sustainability (MEdIES) whose web-site includes on-line educational materials on ESD at <www.medies.net>. Germany: see 4.3.1.

Sub-indicator 4.3.4.	**Is a register or database of ESD teaching tools and materials in the national language(s): (a) accessible through the Internet? (b) provided through other channels?**
Description:	All concerned actors (e.g. educators, pupils, students, kindergartens, schools, universities, NGOs, academia, the mass media) should have easy access to this 'metadata' (i.e. a registry or database) on existing teaching tools and materials. The database should be available in the national language possibly via the internet or other means (e.g. libraries, information centers, conferences, workshops). Please specify by providing the most advanced examples of metadata on ESD teaching tools/materials available at the national level.
Relevant passage(s) from the Strategy:	See relevant passages from the Strategy under 4.3.3 above.
Example(s):	The German portal for the UN DESD activities is intended to concentrate the information on (E)SD projects, activities etc. and to guide the attention to the relevance of (E)SD issues: <http://www.bne-

	portal.de/coremedia/generator/unesco/de/01__Startseite/Englische_20Startseite.html>. Data bases on international eco-schools project: <www.eco-schools.org>. The UK Government's 'Teachernet' website has an area dedicated to sustainable schools with a range of policy documents, guidelines and case studies: <www.teachernet.gov.uk/sustainable schools>. "Plug In2 the Environment" and "eco-Interactive experience" two Maltese websites (Website link!). Polish Citizen Information Agency (http://oai.pl/) is a forum for exchanging news and experiences and "Use of IT in ESD. *Collection of Good Practices in ESD*: <http://www.unece.org/env/esd/GoodPractices/list.html#P>. Serbian initiative "Interactive Farm" (http://www.interaktivnafarma.org/). *Collection of Good Practices in ESD*: <http://www.unece.org/env/esd/GoodPractices/list.html#S>. (check!) Internet library on the web-site of the international NGO – Central Asian Regional Environmental Centre <www.carec.kz>.

ISSUE 5. PROMOTE RESEARCH ON AND DEVELOPMENT OF ESD

Indicator 5.1 Research[9] on ESD is promoted.

Sub-indicator 5.1.1	**Is research that addresses content and methods for ESD supported?**
Description:	"Support" means efforts and means to stimulate research on ESD content and methods, including governmental grant schemes, grants from trusts and foundations, political priorities, guideline documents and evaluation frameworks. ESD-related research can be supported through institutional changes, new types of communication, different visions and approaches.
Relevant passage(s) from the Strategy:	41. For ESD to become part of an agenda for change towards a more sustainable society, education itself must be subject to change. Research that might contribute to ESD should be encouraged. 58. There is a need for research and development activities in different areas of ESD, such as effective learning methods, evaluation tools, formation of attitudes and values, school/institutional development and implementation of ICT. Research and development on ESD should offer a continuing basis in developing ESD. 60. Key actions to achieve this [promote research on and development of ESD] could be to initiate and promote research on and development of: the content of ESD and teaching and learning methods; the economic effects of and incentives for ESD; ways of

[9] These include support from various sources, such as state, local authorities, business and non-governmental sources.

	including aspects of SD and their local context in different subjects, giving priority to research that brings together the different dimensions of SD; […].
Example(s):	Czech Republic's areas of research – development of active learning methods, analysis of educational goals within different branches of education for sustainability, evaluation of effectiveness of the ESD, research in the field of philosophy of education. SD is a research priority of the Czech National Policy of the Research and Development; this theme does not cover ESD sufficiently. For allocation of finances is responsible Governmental Council for Research and Innovation which is an institution for research coordination and information management; research grants for ESD are available e.g. from the Ministry of Environment). Formas, the Swedish Research Council for Environment, Agricultural Sciences and Spatial Planning, encourages and supports scientifically significant research related to sustainable development. Formas is a governmental research-funding agency related to several ministries <http://www.formas.se/default____529.aspx>. The Higher Education Funding Councils of England and Wales both support university projects on SD/ESD that include a strong element of research, e.g. <http://csf.plymouth.ac.uk>. (redraft a bit!)

Sub-indicator 5.1.2	**Does any research evaluate the outcome of the implementation of the UNECE Strategy for ESD?**
Description:	The sub-indicator refers to evaluation of the UNECE Strategy itself. Research that evaluates outputs and outcomes can include reflection, action research, questionnaire surveys, data analysis, etc. The level/scale of research (national, subnational, local, school, pilot) should be specified.
Relevant passage(s) from the Strategy:	60. Key actions to achieve this could be to initiate and promote research on and development of: the content of ESD and teaching and learning methods; the economic effects of and incentives for ESD; ways of including aspects of SD and their local context in different subjects, giving priority to research that brings together the different dimensions of SD; indicators and evaluation instruments for ESD; and share the results of research and examples of good practices.78. […] Evaluation methods and indicators for the implementation of ESD, in particular qualitative ones, should be developed.
Example(s):	[At this stage we do not have outcomes yet …] Learning from each other: achievements, challenges and the way forward - Report on progress in implementation of the UNECE Strategy for ESD (ECE/BELGRADE.CONF/2007/INF/3 - ECE/CEP/AC.13/2007/2); <http://www.unece.org/env/esd/belgrade.htm >.

Sub-indicator 5.1.3	**Are post-graduate programmes available: (1) on ESD: (a) for the master's level? (b) for the doctorate level? (2) addressing ESD: (a) for the master's level? (b) for the doctorate level?**

Description:	Research *on* ESD includes both theoretical and operational aspects of ESD, e.g. educational concepts, methodology, philosophical principles applied in ESD, methods and tools for implementation, indicators of success, efficiency/effectiveness of programmes, appropriateness of institutional settings, tools and materials, etc.. Research *addressing* ESD refers to SD-related studies (e.g. Clean Production, Sustainable Consumption and Production, Water Management, Sustainable Energy, etc) that includes ESD components. The sub-indicator asks for the specification of any available programmes at both Masters and Doctorate levels.
Relevant passage(s) from the Strategy:	20. Higher education should contribute significantly to ESD in the development of appropriate knowledge and competences. 50. […] Key actions to achieve this could be to: adopt frameworks for ESD for all levels of education; …to integrate SD principles into the study programmes and special courses at all levels of higher education, […]. 60. Key actions to achieve this could be to initiate and promote research on and development of: the content of ESD and teaching and learning methods; the economic effects of and incentives for ESD; ways of including aspects of SD and their local context in different subjects, giving priority to research that brings together the different dimensions of SD; indicators and evaluation instruments for ESD; and share the results of research and examples of good practices.
Example(s):	*(1) (a) On ESD for the master's level* London South Bank University (UK) has been offering a Masters programme on Education for Sustainability since 1994. Initially supported by the NGO WWF, the course has traditionally attracted a high proportion of overseas students <http://www.lsbu.ac.uk/efs/>. *(1) (b) On ESD for the doctorate level* The DICHINET postgraduate programme on science(chemistry) teaching in Greece (see also sub-indicator 3.1.1.) offers ESD as one of its courses for all post graduate students. Those who wish to specialize on ESD devote the major part of their second year and prepare their MSc thesis on ESD. If they wish they can continue for a doctorate on ESD. *(2) (a) Addressing ESD for the master's level* A course of lectures for universities on the theory and practice of SD is under preparation in Armenia. A special course for master on "Geo-ecology in the context of SD" is available at Yerevan State University. There are programmes addressing ESD for the master's level at the universities of Moscow and St. Petersburg in the Russian Federation. In Sweden master's programmes are available in several universities. e.g. at Linköping University <http://www.tema.liu.se/tema-v/masterprogramme/>.

	(2) (b) Addressing ESD for the doctorate level In the Czech Republic in 2007 was accredited a PhD. program "Environmental Studies" (Charles University, Faculty of Humanities) that is a synthesizes of different aspects of SD including education in an interdisciplinary framework (system of tutors). In Sweden an example of doctoral level programmes is VINNOVA Centre of Excellence for Sustainable Communications at The Royal Institute of Technology <http://www.csc.kth.se/sustain/research/>. A recent compendium gives a description of German research facilities and universities / departments that offer academic studies in ESD and SD: <www.leitfaden-nachhaltigkeit.de>.

Sub-indicator 5.1.4	**Are there any scholarships supported by public authorities for post-graduate research in ESD: (a) for the master's level; (b) for the doctorate level?**
Description:	"Support by public authorities" can include policy measures, institutional frameworks and direct financial assistance. When answering for this sub-indicator, please provide additional information, e.g. on who provides the funding and who is eligible to apply.
Relevant passage(s) from the Strategy:	76. Governments should consider using budgets and economic incentives to finance ESD for all forms of education, including introducing scholarships on ESD […].
Example(s):	The UK Teacher Development Agency makes 'scholarships' available to providers of Masters-level programmes who run ESD courses. The Higher Education Funding Council for England (HEFCE) have provided the University of Gloucestershire with funding for PhD studentships in active learning which have often taken an ESD focus. The University also offers annual PhD scholarships specifically in ESD but these are funded by the University.

<u>Indicator 5.2 Development of ESD is promoted.</u>

Sub-indicator 5.2.1	**Is there any support for innovation and capacity-building in ESD practice?**
Description:	Support can include institutional frameworks and policy measures, grant schemes, training, workshops, conferences, etc. Activities may include pilot projects, action research, social learning and/or multi-stakeholder teams, as well as the introduction of innovative teaching methods and materials, participatory processes, etc. Please provide information on: (a) what kind of support is given;

	(b) who provides it; (c) what kind of innovation and capacity building is supported; (d) the total amount spent annually over the reporting period.
Relevant passage(s) from the Strategy:	76. Governments should consider using budgets and economic incentives to finance ESD for all forms of education, including […] capacity building in educational institutions.
Example(s):	[Jana's comments - first 3 examples for the Czech Republic are taken from Good Practices. As only small part of ESD is institutionalized, there is almost no problem with financing innovations or capacity building in ESD – all of the ESD organizations have to permanently write new project proposals which have to be innovative! More complicated is to sustain with traditional ESD activities over longer time periods.] Info on innovative practices of the National Network of Centres for Environmental Education and Edification see <http://www.mzp.cz/AIS/web-pub.nsf/$pid/MZPMNF7YNKJQ>. National Network of Environmental Education Centres PAVUCINA (100 EE Centers involved) was established in 1999 as a result of systematic support of development of a network of these organisations on the territory of the Czech Republic. Via the participating NGOs, the Programme ensures a controlled EE and ESD standard, access to methodical help for the beginning NGOs, and access to further education for their workers, exchange of experience on the level of the Czech Republic as well as abroad, access to information, etc. Lipka – Environmental Education Centre Aim is to multiply the effect of education for sustainable development by identifying 5 key issues in the region. Innovative is the aspect of 16 partners coming together identifying regional problems and providing solutions to them. Czech Eco-Counselling Network (STEP) Aim is to introduce approach of green/sustainable public procurement and way of operation, to provide education and methodological support for eco-counsellors and offices of public institutions starting with green public procurement (GPP) and sustainable consumption activities. The creation of a common learning environment on university level (5 Prague universities involved) in the Czech Republic resulted in the increased mobility of students, interdisciplinary courses, new teaching methods, innovative teaching materials. Cooperation in ESD in Sweden between researchers, students and actors in a local community around Gothenburg to develop scenarios for sustainable development in the community <http://www.chalmers.se/gmv/EN/projects/esd_chalmers>. Poland: Good practices in ESD. *Good Practices in ESD*: <http://www.unece.org/env/esd/GoodPractices/list.html#P>. (check which one?) Austrian schools and NGO's are supported by the government in "developing by doing". (specify this initiative; website link?)

Indicator 5.3 Dissemination of research results on ESD is promoted.

Sub-indicator 5.3.1	**Is there any public authority support for mechanisms to share the results of research and examples of good practices in ESD among authorities and stakeholders?**
Description:	Support may include funding, institutional frameworks and policy measures. Mechanisms may include training, workshops, conferences, summer schools, journals, periodicals, networks, etc. (NB a specific question on scientific publications follows at 5.3.2) Please provide information on: (a) who provides the support; (b) in what way; (c) the total amount spent annually over the reporting period.
Relevant passage(s) from the Strategy:	59. The results of research and development efforts should be shared with actors locally, regionally and globally, and incorporated into different parts of the education system. 60. Key actions to achieve this [promote research on and development of ESD] could be to […] share the results of research and examples of good practices.
Example(s):	Specific institutions may focus on this area such as the Centre for Research in Education and the Environment (CREE), at the Department of Education, University of Bath, UK. The work of CREE's researchers focuses on educational issues relating to the environment and sustainability and learning is shared with other institutions through a programme of workshops and seminars as well as publications and the CREE website <http://www.bath.ac.uk/cree>. In the Czech Republic there is no central system of research results dissemination except the overwhelming Information system of Research and Development under the Governmental Council for Research and Innovation and its comprehensive (but often lacking concrete information) databases; on the other hand, ESD grants very often require dissemination mechanisms.

Sub-indicator 5.3.2	**Are there any scientific publications: (a) specifically on ESD? (b) addressing ESD?**
Description:	For "on ESD" and "addressing ESD" refer to description under sub-indicator 5.1.3. Publications should not be understood as single articles, rather, they should be understood as "publications" in the sense of journals, magazines, books, monographs, conference proceedings, etc. (i.e. as a collection of articles). Scientific publications should include both printed and electronic versions. This sub-

	indicator can include reviewed as well as non-reviewed publications.
Relevant passage(s) from the Strategy:	59. The results of research and development efforts should be shared with actors locally, regionally and globally, and incorporated into different parts of the education system. 60. Key actions to achieve this [promote research on and development of ESD] could be to [...] share the results of research and examples of good practices.
Example(s):	Czech Republic: Činčera, Jan. Environmentální výchova: od cílů k prostředkům. (Environmental Education: form goals to tools.) Brno : Paido, 2007. ISBN 978-80-7315-147-8 116 p. Horká, Hana. Výchova pro 21. století. Koncepce globální výchovy v podmínkách české školy. (Education for 21. century. Concept of the global education under Czech school conditions) Brno : Paido, 2000. 127 s. ISBN 80-85931-85-0. Electronic peer- reviewed journal Envigogika (http://envigogika.cuni.cz) focused on research of ESD. Electronic media also provides environment for interactive contributing to the content and to mutual dialogue with wide public. Sweden an example of a doctoral dissertation on ESD: Björneloo, I. (2007). *Innebörder av hållbar utveckling - en studie av lärares utsagor om undervisning. (Content of sustainable development – a study of what teachers say in their teaching)* (Göteborg Studies in Educational Sciences, 250). Göteborg: Acta universitatis gothoburgensis. Environmental Education Research is an international refereed journal which publishes papers and reports on all aspects of environmental education and ESD. (any reference details?)

ISSUE 6. STRENGTHEN COOPERATION ON ESD AT ALL LEVELS WITHIN THE UNECE REGION

Indicator 6.1 International cooperation on ESD is strengthened within the UNECE region and beyond

Sub-indicator 6.1.1	**Do your public authorities cooperate in/support international networks on ESD?**
Description:	Public authorities may engage in international cooperation on ESD either by active participation/direct involvement in forums and networks or by supporting the activity of networks (e.g. through international co-operation). Such networks may include those of UNECE, UNESCO or regional networks such as MEdIES. Please specify global, regional and/or sub-regional networks. In case of "support" specify what kind of support.
Relevant passage(s) from the	62. There is a need at the regional level to review and facilitate the implementation of the Strategy and support cooperation on ESD. The regional process should take into account other developments that take place in connection with the United Nations

Strategy:	Decade on Education for Sustainable Development and be seen as a contribution to the global initiatives on ESD. 63. The region has a wealth of experience in international cooperation on education, especially in higher education. A number of national and subregional networks, education, working groups, networks and associations of universities, programmes and partnerships have started work on the development of multidisciplinary forms of education to devise solutions to the problems linked to sustainable development. The challenge is how best to use their experience and potential to promote ESD. Another challenge is research into ESD-related issues, which still does not have a prominent role internationally. There is also a need for international cooperation on ESD in pre-school and school education. 65. The complex nature of ESD requires that, in addition to the education community, other relevant international actors should be invited to work in partnership to implement the Strategy. This is especially relevant for international cooperation aimed at improving SD related knowledge and skills for different professionals and decision makers. 66. Experiences and needs vary in different parts of the UNECE region. Subregional cooperation needs to be strengthened. This would make it possible to work closely on those issues that are of high importance for a given subregion, thereby helping countries to attain the best practical results. 67. Further assessment of the needs in different subregions is required. Special emphasis should be given to the countries in Eastern Europe, the Caucasus and Central Asia (EECCA)[10] and South-Eastern Europe in solving their main problems in environmental education and in education for sustainable development. Some of their problems are lack of adequate instruction materials, the inefficient use of the capacity of higher education and research institutions, the shortage of skilled educators and insufficient awareness raising as well as a lack of interdepartmental and multi-stakeholder cooperation on ESD. Another challenge that should be addressed in South-Eastern Europe and EECCA is the poor quality of education for children living in rural areas and the lack of financial and human resources to develop ESD in those areas. Thus, providing capacity building, financial assistance and support to education, research and public awareness programmes on SD in countries with economies in transition should be recognized as an important issue and be considered by governments, relevant organizations and donors accordingly[11]. 68. Key actions could be to: strengthen existing regional and subregional alliances and networks working on ESD and encourage twinning programmes, bilateral cooperation and partnerships; use, as appropriate, existing international legally binding instruments such as the Aarhus Convention and other relevant agreements to raise awareness of SD; facilitate the sharing of good practices and experiences, innovations and information of national experiences and projects in development cooperation on ESD-related issues, e.g. by using ICT tools and the web site of UNECE; include ESD in relevant bilateral and multilateral programmes; encourage the participation of NGOs and other major groups in international cooperation on ESD; encourage and coordinate

[10] See also Environmental partnerships in the UNECE region: Environment Strategy for countries of Eastern Europe, the Caucasus and Central Asia. Strategic Framework; Fifth Ministerial Conference "Environment for Europe", Kiev, 2003 (CEP/…).
[11] See also Plan of Implementation; World Summit on Sustainable Development.

	international events for SD awareness raising; and encourage the share of experience. 75. The cost of implementing this Strategy should, in general, be borne by each country. Governments should therefore ensure that appropriate resources are available. Many of the proposed actions can be incorporated into ongoing development work in the education sector. Some actions could be more easily carried out as subregional or region-wide projects.
Example(s):	Ministries of Education and Ministries of Environment in 5 Central Asian countries: Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan are together with NGO network on ESD are included into the Central Asian Working Group (CAWG) on ESD. In the Baltic region: Baltic University Programme <http://www.balticuniv.uu.se/>; and Baltic 21E <http://www.baltic21.org/>. MEDIES: The Mediterranean Education Initiative for Environment and Sustainability is a Type II Initiative of Greece, launched in Johannesburg in 2002 serviced by MIO-ECSDE (the Mediterranean Office for Environment, Culture and Sustainable Development). It is a wide network of formal and non-formal educators of all levels from all around the Mediterranean and beyond, and includes an interactive web page (www.medies.net), many educational materials (also on-line) in different languages and offers training courses for educators. Regional Environmental Centre for Central and Eastern Europe (REC) initiated the development and launching of the GREEN PACK, a multi-medium curriculum kit on environmental protection and sustainable development for primary school. In cooperation with the REC country offices since 2001 the GREEN PACK was introduced in Albania, Azerbaijan, Bosnia and Herzegovina, Bulgaria, Czech Republic, Hungary, Macedonia, Montenegro, Poland, Russian Federation, Serbia, Slovakia and Turkey. In these countries the GREEN PACK has been supported by the ministries, municipalities, foreign donors and business, particularly Toyota. <www.rec.org>.Eco-schools materials/materials on climate change in different countries are supported by different public authorities national or local (specify…?)

Sub-indicator 6.1.2	**Do educational institutions/organizations (formal and non formal) in your country participate in international networks related to ESD?**
Description:	Educational institutions such as schools, higher education institutions, NGOs, etc. engage in international networks, e.g. exchange programmes, international projects and networks. Please specify the participating educational institutions/organizations (formal and non formal) and list the major networks in which they are involved.
Relevant passage(s) from the Strategy:	See relevant passages from the Strategy under 6.1.1 above.

Example(s):	[Find website links! …] Many countries participate in the following networks: GHESP BBCC Global Seminar UNESCO Reorienting Teacher Education Towards Sustainability Working Group In the Baltic region: Baltic University Programme (http://www.balticuniv.uu.se/) and Baltic 21E (http://www.baltic21.org/) MIO-ECSDE (www.mio-ecsde.org): see MEDIES (www.medies.net). Rather informal cooperation within bilateral or multilateral projects: VCSE (Virtual Campus for Sustainable Europe e-learning project – partner universities in the Netherlands, Germany, Greece, Czech Republic – and constantly growing) Successor of COPERNICUS in e-learning area. Continued recently (LENSUS project). See <http://www.vcse.eu/>. PASDEL (Practicing Sustainable Development through E-Learning project) – partners educational institutions France, Belgium, Romania, Czech Republic, United Kingdom, Poland). See <http://www.pasdel.eu/>. The WEEC - World Environmental Education Congress – takes place every two years. The Permanent Secretariat is based in Turin, Italy. IUCN- CEC : IUCN;s working group on education <http://cec.wcln.org/index.php?module=pagesetter&func=viewpub&tid=11&pid=27>. InWent (Germany) is a non-profit organisation with worldwide operations dedicated to human resource development, advanced training, and dialogue which also offers trainings for ESD and development education <www.inwent.org>.

Sub-indicator 6.1.3	**Are there any State, bilateral and/or multilateral cooperation mechanism/agreements that include an explicit ESD component?**
Description:	This sub-indicator is asking for formal cooperation mechanisms. Cooperation may cover development aid with an ESD component within or outside the UNECE region and any other ESD-related cooperation. (NB This is not to be confused with 6.1.1 which focuses only on networks). Cooperation can be regarded both from donor and beneficiary perspectives. Please specify the major examples.
Relevant passage(s)	12. The Strategy supports the implementation of the communication, education, public-participation and awareness-raising provisions of multilateral environmental

from the Strategy:	and other relevant agreements. It should also support the implementation of principle 10 of the Rio Declaration on Environment and Development, the Aarhus Convention12, the United Nations Millennium Development Goals13 and Quality Education14 by promoting transparent, inclusive and accountable decision-making as well as people's empowerment. 27. ESD should promote provisions of multilateral relevant international agreements related to SD. 44. Countries should identify their existing obligations regarding communication, education and public participation and awareness raising in international environmental and other relevant agreements in order to address these in a coherent manner through ESD. 67. Further assessment of the needs in different subregions is required. Special emphasis should be given to the countries in Eastern Europe, the Caucasus and Central Asia (EECCA)15 and South-Eastern Europe in solving their main problems in environmental education and in education for sustainable development. Some of their problems are lack of adequate instruction materials, the inefficient use of the capacity of higher education and research institutions, the shortage of skilled educators and insufficient awareness raising as well as a lack of interdepartmental and multi-stakeholder cooperation on ESD. Another challenge that should be addressed in South-Eastern Europe and EECCA is the poor quality of education for children living in rural areas and the lack of financial and human resources to develop ESD in those areas. Thus, providing capacity building, financial assistance and support to education, research and public awareness programmes on SD in countries with economies in transition should be recognized as an important issue and be considered by governments, relevant organizations and donors accordingly16. In addition, see the relevant passages from the Strategy under 6.1.1 above.
Example(s):	The Education Sector within the SD strategy for the Baltic Sea Region, Baltic 21, was launched in 2000 involving 10 countries of the region. Ministries of education and science are responsible for implementing coordinated ESD activities. <www.baltic21.org>. The new list of eligible projects to be supported by the Hellenic Development Aid (Ministry of Foreign Affairs) includes ESD projects or ESD components in development projects. Since 2003, preparation of the annual ESD reports and corresponding conferences of 5 Central Asian (CA) countries, i.e. *Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan,* are organized by CAREC. Both governmental institutions, academic and NGOs are representing the CA countries. The Netherlands' MOUs with Poland, Hungary, Belarus and Ukraine that can be used

[12] The UNECE Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters, Aarhus (Denmark), 1998.
[13] United Nations Millennium Declaration, The General Assembly, 8th plenary meeting, 2000.
[14] Ministers of Education Joint Communiqué, 32nd General Conference of UNESCO, 2003
[15] See also Environmental partnerships in the UNECE region: Environment Strategy for countries of Eastern Europe, the Caucasus and Central Asia. Strategic Framework; Fifth Ministerial Conference "Environment for Europe", Kiev, 2003.
[16] See also Plan of Implementation; World Summit on Sustainable Development.

	for ESD projects. Funding for ESD process of UNECE. At the Kiev "Environment for Europe" conference, the UK's Department for Environment, Food and Rural Affairs launched their own "Environment for Europe" fund that specifically prioritized projects in ESD involving UK-based organization and EECCA countries. The funding scheme ran for two years.

Sub-indicator 6.1.4	**Does your government take any steps to promote ESD in international forums outside the UNECE region?**
Description:	This question is concerned with activities that promote the ESD experiences of the UNECE region outside the region. Examples may include sessions of the UN Commission for Sustainable Development, the Conferences of the Parties/Meetings of the Parties of international conventions and the Mediterranean Commission of SD. Please list and describe.
Relevant passage(s) from the Strategy:	12. The Strategy supports the implementation of the communication, education, public participation and awareness-raising provisions of multilateral environmental and other relevant agreements. It should also support the implementation of principle 10 of the Rio Declaration on Environment and Development, the Aarhus Convention17, the United Nations Millennium Development Goals18 and Quality Education19 by promoting transparent, inclusive and accountable decision-making as well as people's empowerment. 64. Regional and subregional forums that bring together members of the education community, such as civil servants, educators and researchers, and other relevant actors to share their experience and good practices on SD- and ESD-related issues should receive high priority.
Example(s):	The Government of Greece, in close collaboration with MIO-ECSDE organized a Mediterranean meeting in Athens to launch the UN DESD in the Mediterranean and present the UNECE SESD in the region. The meeting agreed to prepare a Mediterranean Strategy for ESD using the UNECE SESD as a 'blueprint' and mandated Greece to promote it. The relevant work is ongoing in cooperation with many related actors. In Sweden the Centre for learning of SD, supported by by the Swedish International Development Agency (Sida), is being established in Gotland to contribute to knowledge development in countries with greatest poverty. <http://www.sida.se/sida/jsp/sida.jsp?d=137&a=33906&language=en_US>. Task Force on Sustainable Consumption and Production …. IUCN …

[17] The UNECE Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters, Aarhus (Denmark), 1998.
[18] United Nations Millennium Declaration, The General Assembly, 8th plenary meeting, 2000.
[19] Ministers of Education Joint Communiqué, 32nd General Conference of UNESCO, 2003.

	Italy: Task Force on Education for Sustainable Consumption – ask Paolo.

ISSUE 7. FOSTER CONSERVATION, USE AND PROMOTION OF KNOWLEDGE OF INDIGENOUS PEOPLES[, AS WELL AS LOCAL AND TRADITIONAL KNOWLEDGE][20] IN ESD

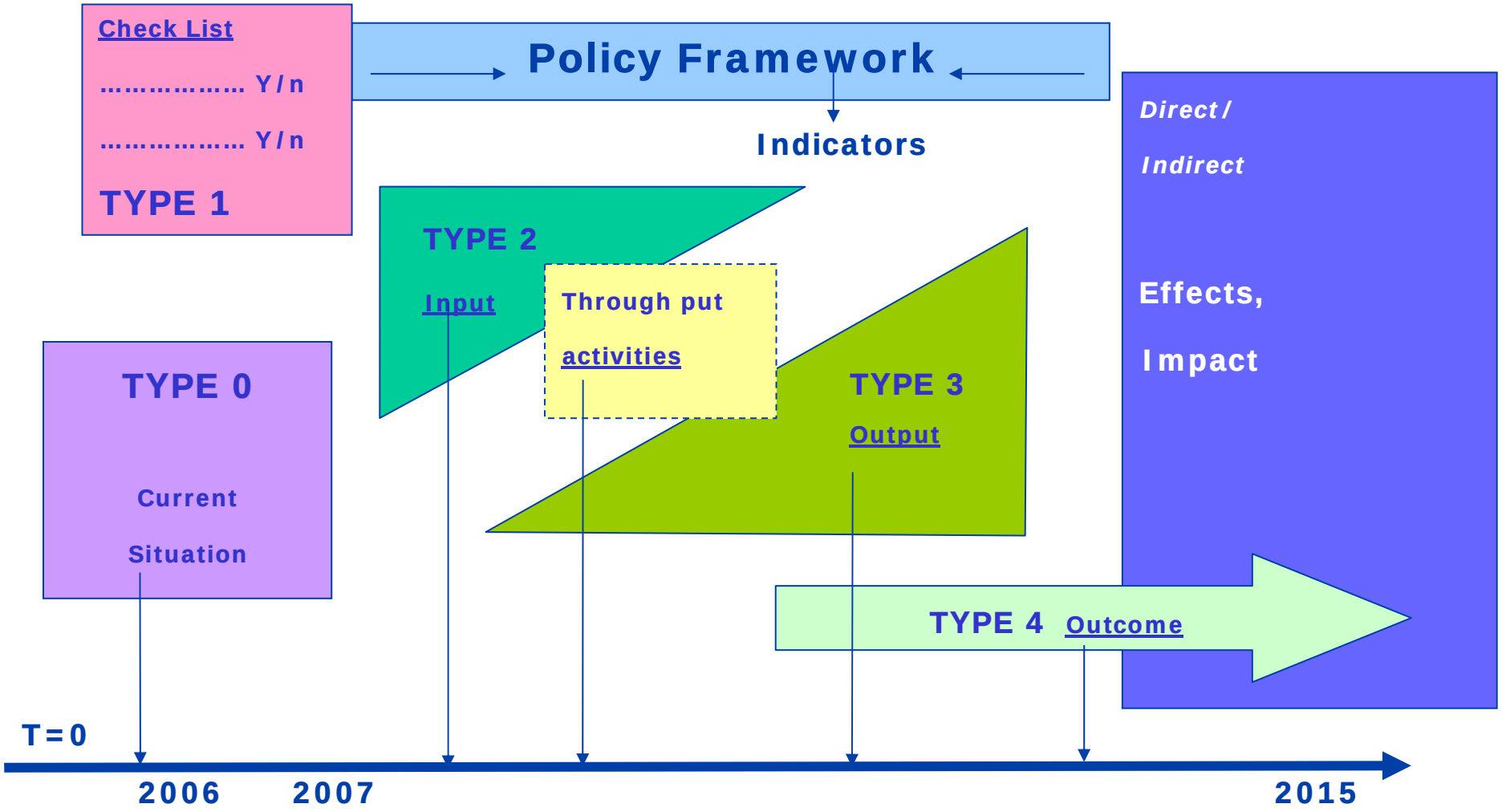
Description:	This reporting issue is intended to elicit relevant information on your country situation regarding the conservation, use and promotion of knowledge of indigenous people, as well as of local and traditional knowledge in ESD. Indigenous knowledge should be valued and conserved as an integral part of ESD, alongside other types of knowledge, e.g. scientific, local and experiential knowledge. Indigenous, traditional and local knowledge refers to the mature longstanding traditions and practices of indigenous or regional communities. In many cases, indigenous, traditional and local knowledge has been orally passed down through the generations from person to person. Indigenous, traditional and local knowledge can be expressed through stories, legends, folklore, rituals, songs and even laws. Making use of such knowledge helps to raise the self-esteem of indigenous people. This issue investigates whether inclusion of indigenous peoples in society is ensured. In some countries, minority groups rather than indigenous groups exist, and/or society is of a multicultural character. This issue also refers to these groups and multicultural societies.
Relevant passage(s) from the Strategy:	17. 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.
Example(s):	Canada has developed initiatives directed towards the Inuit population. In 2004, the Canadian Government described the education system as needing to be built within the context of *Inuit Quajimajatunqagit* (which translates as "that which is long known by Inuit") and that the raising and teaching of children and the care of those in need are a collective community process. *Inuuqatigiit: the Curriculum from the Inuit Perspective* lays the foundation for education to this indigenous group. Sustainable development in its broadest definition is a core value of Inuit life and is thus becoming the foundation of education. [change a bit and show it to Canada for approval]. Kyrgyzstan: traditional knowledge in the sphere of biodiversity conservation was collected and used. [to check for what was used …] Croatia: refers to activities such as the collection and preservation of folk and traditional costumes, music and dance, and the integration of knowledge on traditional fruits and herbs in school curricula. [All countries of UNECE region have this … including

[20] Pending approval by the Bureau.

	traditional agriculture …] Norway: the curriculum for the 10 years' compulsory education considers the specific needs of the Sami people. [delete or check ! whether is has connection to ESD!]

Annex 4.

THE EVALUATION MODEL



Annex 5.

LEVELS OF EDUCATION AT A GLANCE (ISCED 1997)

How to determine the level of a programme				
Proxy criteria for contents		**Name of the level**	**Code**	**Complementary dimensions**
Main criteria	**Subsidiary criteria**			
Educational properties School or centre-based Minimum age Upper age limit	Staff qualification	Pre-primary education	0	None
Beginning of systematic apprenticeship of reading, writing and mathematics	Entry into the nationally designated primary institutions or programmes Start of compulsory education	Primary education First stage of basic education	1	None
Subject presentation Full implementation of basic skills and foundation for lifelong learning	Entry after some 6 years of primary education End of the cycle after 9 years since the beginning of primary education End of compulsory education Several teachers conduct classes in their field of specialization	Lower secondary education Second stage of basic education	2	Type of subsequent education or destination Programme orientation
Typical entrance qualification Minimum entrance requirement		(Upper) secondary education	3	Type of subsequent education or destination Programme orientation Cumulative duration since the beginning of ISCED level 3
Entrance requirement, Content, Age, Duration		Post-secondary non tertiary education	4	Type of subsequent education or destination Cumulative duration since the beginning of ISCED level 3 Programme orientation
Minimum entrance requirement, Type of certification obtained, Duration		First stage of tertiary education (not leading directly to an advanced research qualification)	5	Type of programmes Cumulative theoretical duration at tertiary National degree and qualification structure
Research oriented content, Submission of thesis or dissertation	Prepare graduates for faculty and research posts	Second stage of tertiary education (leading to an advanced research qualification)	6	None

Annex 6.

TEMPLATE FOR GOOD PRACTICES IN ESD

[to add following the outcomes of the 8th meeting]
