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COMMITTEE ON ENVIRONMENTAL POLICY

UNECE Steering Committee on Education for Sustainable Development

First meeting

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INDICATORS FOR EDUCATION FOR SUSTAINABLE DEVELOPMENT

progress report on the work of the Expert Group

1. Following a decision of the High-level Meeting of Education and Environment Ministries (March 2005, Vilnius), an Expert Group has been established with the mandate to *develop indicators to measure the effectiveness of the implementation of the Strategy*. The group comprises of the experts designated by the governments of Armenia, Austria, Canada, France, Greece, Italy, Lithuania, the Netherlands, the Russian Federation, Slovenia, Sweden, and United Kingdom. The following organizations nominated their experts for the group: United Nations Educational, Scientific and Cultural Organization (UNESCO), Intergovernmental Central Asia Working Group on Environmental Education and Education for Sustainable Development, the Environment and Schools Initiatives Network (ENSI) and a coalition of environment citizens' organizations - European ECO-Forum. The group is chaired by Mr. Roel van Raaij (the Netherlands).
2. The Expert Group held its two meetings on 26 to 28 September 2005 (Ede, the Netherlands) and on 31 October to 2 November 2005 (Geneva, Switzerland).
3. The experts identified a number of issues relating to the development of indicators. With regard to the scope, they agreed that the indicators should be determined by the objectives of the Strategy. In this respect, they studied areas of actions under each objective of the Strategy with the view of ensuring that indicators address all the key issues. Furthermore, in order to provide consistency between indicators and the draft format for the report on implementation, they proposed to make a slight revision of this format (see Annex I).

4. The experts confirmed that the indicators should reflect both aspects of the mandate: “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 education for sustainable development (ESD).

5. Another important statement was that indicators should not be seen as a stand-alone tool, but considered in the broader context of implementation of the Strategy. Therefore, experts decided to consider indicators within a comprehensive implementation review framework, taking into consideration such aspects as a reporting mechanism and the phase-out approach for the Strategy’s implementation¹. In this context, experts addressed the following key issues:

- Nature of indicators

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 appropriate².

- Baseline data

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. The experts suggested using data for 1 January 2005, as baseline data. They also stressed the importance of taking into account 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.

- Concept of use of indicators

The Strategy addresses input measures, a wide range of activities and expected effects with regard to the implementation of ESD. It also illustrates the complex nature of ESD. Therefore, the experts underlined the importance of measuring 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, the experts decided to consider indicators within a clearly defined evaluation model that would help countries to measure the implementation process in a comprehensive and realistic way (See Annex II). In this context the experts identified four types of indicators: “Checklist indicators”, “Input indicators”, “Output indicators” and “Outcome indicators”:

“Checklist indicators” would provide information on initial policy, legislation, regulatory and governance measures taken by a government in order to implement the Strategy (e.g. whether a

¹ See chapter 6 of the UNECE Strategy for Education for Sustainable Development (CEP/AC.13/2005/3/Rev.1) which states that implementation should be seen as a continuous process and, in order to facilitate assessment of its progress, three phases for implementation are proposed.

² 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)

coordinating mechanism is in place, whether the Strategy is translated into national/state language(s)).

“Input indicators” will 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).

“Output indicators” will 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).

“Outcome indicators” will 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).

Most of the indicators of the first and second groups could already be used by countries in Phase I (by 2007) and, in some cases, in Phase II (by 2010). The third and fourth groups, however, are more demanding in terms of methodology and could require long-term research. Therefore, they will be relevant over a longer period, in Phase II or III (by 2015), but the activities that they determine would need to start earlier, in Phase I or II.

6. Due to the inclusive nature of ESD, the initial number of indicators developed by the experts was very high. Therefore, the experts agreed to reduce the number of indicators by combining relevant underlying questions to one feasible aggregated indicator and, also, to introduce two statuses for indicators: “required”, which means that this indicator will be necessary to use for the reporting and “proposed”, which means that countries may wish to use this indicator voluntarily.

7. The experts prepared the first draft of indicators based on the above considerations (see Annex III). In consideration of comments from the Steering Committee, it was agreed that at the next meetings the experts would focus on consistency, validation and avoid duplications in the draft. They also decided to work further on the grouping of several underlying questions in order to develop an aggregated indicator (for example, see indicator 1.1).

8. With regard to the issue of “indigenous people”, the experts proposed that a description on how their knowledge is conserved, used and promoted, be considered as an indicator. They decided to come back to this issue after the meeting of the Steering Committee. In addition, the experts agreed that, if necessary, an explanatory note on the particular terms used for indicators might be developed at a later stage.

9. The experts discussed possible target groups that would be interested in the national reports on implementation. The target groups were 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).

10. The experts highlighted the usefulness of finding links between the proposed set of indicators and relevant indicators and data already available at national and international levels. They also

voiced an expectation that other relevant fora might use the results of their work to evaluate implementation of ESD.

11. The experts also stressed that in order to ensure good quality of the reports on implementation, 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. They strongly recommended including this as a requirement for the reporting mechanism to be considered by the Steering Committee.

12. The experts tentatively agreed to hold two more meetings, in March and May 2006. The final outcome of the group's work will be presented for endorsement to the second meeting of the Steering Committee on ESD.

Note: Background documents prepared for the meetings of the Expert Group are available on the web site:
<http://www.unece.org/env/esd/SC.EGI.htm>

Annex I
Issues for reporting

Issue 1: Policy, regulatory and operational frameworks that support ESD

- (a) *General description*
- (b) *Indicators (include some baseline data)*

Issue 2: Promotion of SD through formal, non-formal and informal learning

- (a) *General description*
- (b) *Indicators (include some baseline data)*

Issue 3: Equipment of educators with the competence to include SD in their teaching

- (a) *General description*
- (b) *Indicators (include some baseline data)*

Issue 4: Ensuring that adequate tools and materials for ESD are accessible

- (a) *General description*
- (b) *Indicators (include some baseline data)*

Issue 5: Promotion of research on, and development of, ESD

- (a) *General description*
- (b) *Indicators (include some baseline data)*

Issue 6: Strengthening regional and international co-operation on ESD at all levels within the UNECE region

- (a) *General description*
- (b) *Indicators (include some baseline data)*

Issue 7: Conservation, use and promotion of knowledge of indigenous people with respect to ESD

Please be as specific as possible

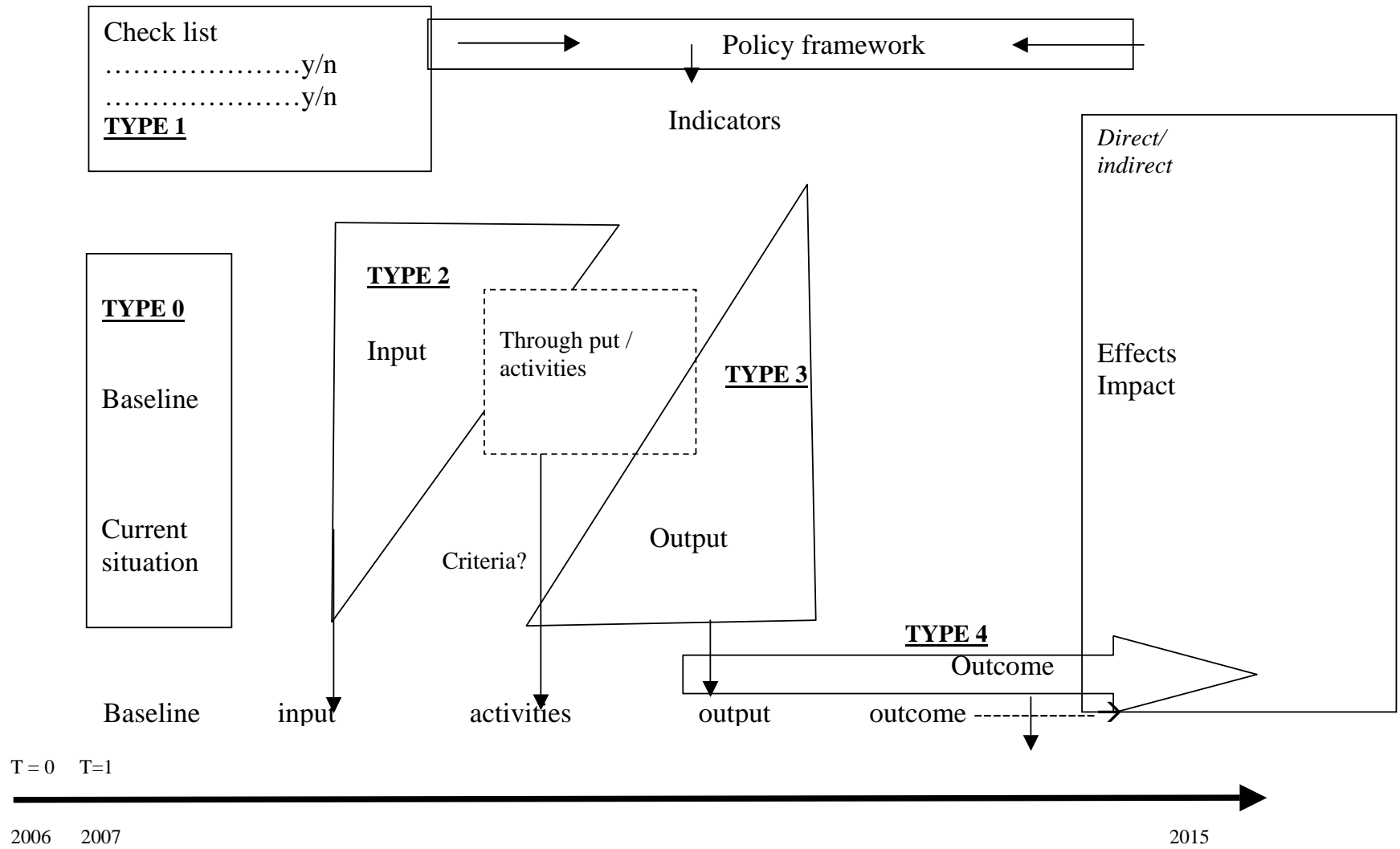
Issue 8: Describe any challenges and obstacles encountered in the implementation of the Strategy

Please be as specific as possible

Issue 9: Describe any assistance needed to improve implementation

Please be as specific as possible

**Annex II
Evaluation Model**



**ANNEX III
DRAFT OUTLINE OF INDICATORS**

Subject for evaluation: objectives of the Strategy ³	Indicators	Underlying questions	<i>Indicator Type</i>	Means & Source of Verification	Status of indicator	Timeframe for completion
<i>Objective 1 Ensure that policy, regulatory and operational frameworks support the promotion of ESD</i>						
	1.1 Organisation of the institutional arrangements ⁴ <ul style="list-style-type: none"> • Not started (0 yes) • In progress (1-2 Yes) • Developing (3-5 Yes) • Completed (6 Yes) 				Required	
		(a) Is the Strategy available in your national ⁵ language(s) ⁶ : Yes/No;	Qualitative; "Checklist"	Government reports		Phase I
		(b) Do you have a coordinating body for implementation of the Strategy? Yes/No. Pls. describe its mandate and coordinating mechanism;	Qualitative; "Checklist"	Government reports		Phase I
		(c) Do stakeholders participate in the coordinating structure? Yes/No;	Qualitative; "Checklist"	Government reports		Phase I
		(d) Does a formal structure for interdepartmental ⁷ co-operation relevant to ESD exist in your government? Yes/No;	Qualitative; "Checklist"	Government reports		Phase I

³ Subjects for evaluation in accordance with the UNECE Strategy for Education for Sustainable Development (CEP/AC.13/2005/3/Rev.1)

⁴ There will be further work on the grouping of several underlying questions in order to develop an aggregated indicator. This indicator serves as an example of this exercise.

⁵ For countries with a federal governmental structure, all references to "national" apply to "State", as appropriate

⁶ For countries with a federal governmental structure, all references to national plans apply to State.

		(e) Does a multi-stakeholder cooperation on ESD exist in your government Yes/No (please describe) ⁸ ;	Qualitative; "Checklist"	Government reports		Phase I
		(f) Have you appointed a national focal point? Yes/No.	Qualitative; "Checklist"	Government reports		Phase I
	1.2 Implementation of the policy, regulatory and operational frameworks to support the Strategy.				Required	
		(a) Do you have a national Strategy on SD? Yes/No;	Qualitative; "Checklist"	Government reports		Phase I
		(b) If yes, is ESD a part of this Strategy?	Qualitative; "Checklist"	Government reports		Phase I
		(c) If not, is ESD addressed in any other national policy document? Yes/No. Explain how it is included;	Qualitative; "Checklist"	Government reports		Phase I
		(d) Do you have any national policy documents <i>specifically dedicated</i> to ESD? Yes/No;	Qualitative; "Checklist"	Government reports		Phase I
		(e) Do you have a national plan for implementation of the Strategy for ESD? Yes/No;	Qualitative; "Checklist"/ "Input"	Government reports		Phase I
		(f) Are informal and non-formal learning addressed in your national implementation plan on ESD? Yes/No;	Qualitative; "Checklist"/ "Input"	Government reports		Phase I
		(g) Are there any operational frameworks for non-formal education at national/local level that address ESD? Yes /No. Please specify;	Qualitative; "Checklist"/ "Input"	Government reports		Phase I

⁷ Between State bodies.

⁸ For explanation see paragraph 46 of the Strategy.

		(h) Is there a 'public awareness component in relevant national documents that address ESD? Yes/No;	Qualitative; "Checklist" / "Input"	Government reports		Phase I
		(i) Are public budget and economic incentives to support ESD available? Yes/No. Please describe and, if feasible, provide figures/ratio;	Qualitative; "Input"	Government reports		Phase I
	1.3 To what extent is ESD addressed in relevant national legislation <i>at all levels of formal education, as understood by your education system in accordance with ISCED</i> ⁹	a) Pre-primary b) Primary c) Secondary d) Higher/ Tertiary e) Teacher education Specify for each level: Not at all In progress Specified	Qualitative; "Input"	Reports of relevant Ministries	Required	Phase I
	1.4 To what extent is ESD 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?	a) Pre-primary b) Primary c) Secondary d) Higher/Tertiary e) Teacher education Specify for each level: Not at all In progress Specified	Qualitative; "Input"	Reports of relevant Ministries	Required	Phase I
Objective 2. Promote SD through formal, non-formal and informal learning	Aggregated indicators to be developed on the basis of these questions (for example, see objective 1)					
	2.1 Which key themes of SD ¹⁰ are addressed explicitly in the curriculum ¹¹ at various levels of formal education. Please specify for each level in accordance with ISCED		Qualitative; "Input"	Education institutions and Ministries responsible for Education	Required	Phase I

⁹ International Standard Classification of Education (ISCED), UNESCO, 1997

¹⁰ For explanation see paragraph 15 of the Strategy.

¹¹ At State level, where relevant

	2.2 In what subjects are SD themes integrated? Please specify for different levels of <i>school</i> system in accordance with ISCED.	Fields of study: <ul style="list-style-type: none"> • Social sciences • Natural sciences • Technical sciences • Humanities • Art • Other 	Qualitative; "Input"	Educational institutions and Ministries responsible for Education	Required	Phase I
	2.3 Is ESD: (a) addressed as a cross-curriculum approach? Please specify for different levels of school system; (b) delivered through the provision of specific subject programmes and courses? Pls. specify for different levels of school system in accordance with ISCED.	a) Pre-primary b) Primary c) Secondary d) Higher/Tertiary e) Teacher education Specify for each level: Not at all In progress Specified	Qualitative; "Input"	Educational institutions and Ministries responsible for Education	Required	Phase I
	2.4 Availability of post-graduate courses: a) on ESD: <ul style="list-style-type: none"> • for MSc (Yes/No) • for PhD (Yes/No) b) related to ESD <ul style="list-style-type: none"> • for MSc (Yes/No) • for PhD (Yes/No) Pls. specify.		Qualitative; "Input"	Educational institutions and Ministries responsible for Education	Required	Phase I
	2.5 Are SD themes included in the study programmes of IHE ¹² ? Yes/No.		Qualitative; "Input"	Educational institutions, Ministries responsible for Education	Required	Phase II
	2.6 Are SD themes addressed in formal vocational and continuing education? Yes/No; Pls. describe how.		Qualitative; "Input"	Educational institutions and Ministries responsible for Education	Proposed	Phase II

¹² Institutions of higher education

	2.7 Are there any incentives that support "a whole institution approach to SD/ESD" ¹³ ? Yes/No.	a) Ratio of educational institutions adopting a "whole institution approach" to SD/ESD b) What is the proportion of educational institutions that have received or applied to receive recognition or a reward for SD?	Quantitative; "Input" and "Output"	Educational institutions, funding agencies	Proposed	Phase II
	2.8 (a) Do you have quality assessment systems for education ¹⁴ ? Yes/No; b) Does it address ESD? Yes/No; pls. describe for various levels of your education system in accordance with ISCED.		Qualitative; "Input"	Educational institutions or agencies and relevant Ministries	Required	Phase II
	2.9 a) In which way are key competences (e.g. 'critical thinking', 'systemic thinking', 'citizenship') addressed in: -educators' training; -quality assessment system(s); -student-oriented initiatives; -other; at various levels of your education system (see ISCED)?		Qualitative; "Output"	Educational institutions and relevant Ministries; Surveys among staff of educational institutions, parents, pupils and students	Proposed	Phase III
	2.10 In which way are methodologies, required for ESD, addressed at various levels of your education system in accordance with ISCED (e.g. 'participatory approach'; links to local, regional and global problems; integrative		Qualitative; "Output"	Educational institutions and relevant Ministries; Surveys among staff of educational institutions, relevant	Proposed	Phase III

¹³ "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)

¹⁴ The issue of a quality assessment system to be further discussed

	approach to environmental, economic and social issues; orientation to understanding, preventing and solving problems).			ministries, parents, pupils and students		
	2.11 a) Are NGOs involved in ESD-related informal and non-formal education? Yes/No; b) Pls. provide an indication of the volume of these activities (e.g. based on number of relevant NGOs, programmes, financial expenditures); c) What are the incentives that support ESD-related activities by NGOs?		Quantitative & Qualitative ; "Input"/ "Output"	NGO and donor organizations, relevant authorities	Required	Phase II
	2.12 (a) Which other stakeholders (e.g. trade unions, chamber of commerce, professional associations, local authorities) are involved in ESD-related learning? (b) Pls. provide indication of volume of learning activities (e.g. programmes and courses) offered by the trade unions, professional associations, civil servant training bodies, etc.		Qualitative and Quantitative; "Input"/ "Output"	Reports by the trade unions and professional associations, relevant Ministries	Required	Phase II
	2.13 Are there any community-based participatory projects with an ESD aspect supported by the public authorities (e.g. local Agenda 21)? Yes/No. If feasible, pls. provide indication of volume (e.g. communities involved, people involved).		Quantitative; "Output"	Reports by public authorities	Required	Phase II
	2.14 Pls. describe how informal and public		Quantitative; "Input" /"Output"	Media, sociological	Proposed	Phase II-III

	awareness raising activities address SD issues (e.g in press articles, TV and radio programs promoting environmentally friendly goods and services, sustainable lifestyles, public lectures). If feasible, provide indication of volume.			Centers reports, Ministries (press Case study, research (local Agenda 21)-officers)		
	2.15 Provide information on outcomes of social learning ¹⁵ programmes conducted under your implementation plan on ESD.		Qualitative; “Outcome”	Educational institutions, relevant Ministries, surveys, case studies	Proposed	Phase III
Objective 3. Equip educators with the competence to include SD in their teaching	Aggregated indicators to be developed on the basis of these questions (for example, see objective 1)					
	3.1 Is ESD part of initial Teacher Education? Yes/No		Qualitative; “Input”	Educational institutions, Ministry of Education	Required	Phase II-III
	3.2 Is ESD part of in-service training? Yes/No	(a) Ratio of teachers who received training on ESD/SD issues to total number of teachers who receive in-service teacher training, annually (training on the content and methodology: e.g. innovative teaching methodologies and technologies, such as interactive lessons, life-cycle analyses and the use of ICT tools). Pls. indicate for various levels of your education system in accordance with ISCED; b) Do you have ESD-related courses for teachers/lectures in IHE? Yes/No; c) Do you have ESD-related courses for educators of non-formal	Quantitative and Qualitative; “Output” (a) and “Input” (b-d)	Educational institutions, Ministry of Education	Required	Phase I-II-III

¹⁵For definition of social learning, see addendum 2 of the Strategy (CEP/AC.13/2004/8/Add.2)

		education? Yes/No; d) Do you have ESD-related training for school leadership (e.g. heads and principals) Yes/No.				
	3.3 Are networks / platforms of educators who are interested in ESD available? Yes/No. What part of them is supported by government? Pls. Describe.		Qualitative; "Output"	Educational institutions, relevant Ministries	Proposed	Phase II
	3.4 Are quality criteria for evaluating teacher performance in relation to ESD defined in your country? Yes/No.		Qualitative; "Input"	Educational institutions, Ministry of Education; NGO's; research institutions; inspector reports	Proposed	Phase III
	3.5 Is ESD a part of the formal system of teacher performance criteria? Yes/No.		Qualitative; "Output"	Educational institutions, Ministry of Education; self evaluation; inspector reports	Proposed	Phase III
Objective 4. Ensure that adequate tools and materials for ESD are accessible	Aggregated indicators to be developed on the basis of these questions (for example, see objective 1)					
	4.1 Existence of State strategy/ mechanisms for encouragement of development, production and dissemination of ESD materials? Yes/No. Provide an indication of public authority money invested into this activity (annually, amount in Euros).		Qualitative and Quantitative; "Input"	Relevant Ministries	Required	Phase II
	4.2 Do you have quality criteria for ESD-related teaching materials? Yes/No.		Qualitative; "Output"	Educational institutions, Ministry of	Required	Phase II

	Are they used in: a) State approval system; b) guidelines for teaching materials; c) selection of materials by schools.			Education		
	4.3 The same questions as in 4.2, but related to non-formal education.		Qualitative; "Output"	Relevant Ministries, NGOs; Research Institutions	Proposed	Phase II
	4.4 Are teaching materials, including text books, reflecting ESD principles: a) Available in relevant state language(s) at different levels of education? Yes/No. Pls. specify for each level; b) Accessible at reasonable costs Yes/No. Pls. Specify; c) Accessible through Internet (% of educational institutions for each level of education system with Internet access).		Qualitative; "Output"	Educational institutions, Ministry of Education	Required	Phase II
	4.5 The same questions as in 4.3, but related to non-formal education.		Qualitative; "Output"	Relevant Ministries, NGOs; Research Institutions	Proposed	Phase II
	4.6 a) Number of websites dedicated to ESD in state/local languages: Yes/No; b) Number of these website(s) supported by public authorities; c) Availability of register of publications devoted to ESD through the(se) website(s): Yes/No; d) Availability through		Quantitative and Qualitative; "Output"	Educational institutions, Ministry of Education	Required	Phase II

	internet of database/register of existing ESD-related teaching materials: Yes/ No.					
Objective 5. Promote research on and development of ESD	Aggregated indicators to be developed on the basis of these questions (for example, see objective 1)					
	5.1 Existence of state policy/ mechanism supporting: a) Research that addresses content and methods for ESD (e.g. concepts; formation of attitudes and values; development of competences, teaching and learning; school development; implementation of ICT; means of evaluation including socio-economic impacts) Yes/No; b) Research that evaluates the outcome of the State implementation of the UNECE Strategy for ESD Yes/No; c) Indication of allocated budgets (annually, sum in Euros).		Qualitative and Quantitative; "Input"	Relevant Ministries	Required	Phase III
	5.2 The same questions as in 5.1, but related to non-governmental and/or other relevant mechanisms.		Qualitative and Quantitative; "Input"	Relevant institutions and organisations	Proposed	Phase III
	5.3 Existence of state policy/ mechanism supporting SD-related research programmes conducted by interdisciplinary teams ¹⁶ : Yes/No. Please describe.		Qualitative; "Output"	Ministry of Education; relevant institutions and organisations	Required	Phase II

¹⁶ For explanation see paragraph 60 of the Strategy.

	5.4 Number of scientific publications devoted to ESD and/or SD (annually).		Quantitative; "Output"	Education and research institutions, relevant Ministries, NGO, publishers	Required	Phase II
	5.5 Existence of public authority support for mechanisms of sharing the results of research and examples of good practices in ESD among authorities and stakeholders (e.g. conferences, summer schools, journals, periodicals, networks) Yes/No; If feasible, indicate amount of activities and budget allocated (annually, amount in Euros).		Quantitative and Qualitative; "Output"	Ministry of Education Institutions of Higher Education, NGOs	Required	Phase II
	5.6 Availability of scholarships supported by public authorities for post-graduate and postdoctoral research in ESD Yes/No.		Qualitative; "Output"	Ministry of Education Institutions of Higher Education	Proposed	Phase I
Objective 6 Strengthen co-operation on ESD at all levels within the UNECE region	<i>developed on the basis of these questions (for example, see objective 1)</i>					
	6.1 Does your public authorities co-operate in /support international ¹⁷ networks on ESD (associations, working groups, programmes, partnerships)? Yes/No; Indicate total number and list major ones.		Qualitative and Quantitative; "Input"/ "Output"	Reports of relevant authorities	Required	Phase II
	6.2 Do educational		Quantitative and	Reports of	Proposed	Phase II

¹⁷ In this context, "international" covers "global", "regional" and "sub-regional"

	institutions/ organisations (formal and non-formal) in your country participate in international networks? Indicate total number of institutions/organisations and list major ones.		Qualitative; "Output"	relevant authorities		
	6.3 How many state bilateral and multilateral cooperation mechanisms/agreements, explicitly including an ESD component, exist? Please list the major ones.		Quantitative and Qualitative; "Output"	Reports of relevant authorities	Required	Phase II
<i>Indicators on issue of conservation, use and promotion of knowledge of indigenous people with respect to ESD are to be developed</i>						

