# **National Implementation Report**

(As submitted by: Cyprus)

# Format for reporting on implementation of the UNECE Strategy for Education for Sustainable Development

Phase III: 2011-2015

The following report is submitted on behalf of the Government of the **REPUBLIC OF CYPRUS**. in accordance with the decision of the ECE Steering Committee on Education for Sustainable Development.

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Signature: A. ladioria

Date: 1.11.2014

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Contact officer for national report (if different from above):

A. Provide brief information (not more than half a page) on the process by which this report has been prepared, including information on which types of public authorities were consulted or contributed to its preparation; on how the stakeholders were consulted and how the outcome of this consultation was taken into account; and on the material used as a basis for the report.

The preparation of this report was coordinated and prepared by the Steering Group on Education, Environment and Sustainable Development of the Pedagogical Institute (Ministry of Education and Culture). For the collection of data from the various bodies, all the indicators and guidance for reporting were carefully examined, and the indicators, related to government departments, non-governmental organisations, various associations and organizations, universities and research centers, were categorised. This was followed by a letter/circular asking all parties concerned to indicate a contact person who would be responsible for collecting and sending the relevant data from their department, agency or organisation and their mission to the Steering Group. Subsequently, the focal points of the various services, institutions, NGO's and other stake holders were invited in a one-day meeting. There, the importance of their response to the preparation of the indicators according to the National focal point was presented and they were explicitly told of what was expected from the completion of each of the indicators that would be provided, how these were to be completed and what could be submitted. Then each of these bodies was sent the appropriate indicators electronically. During the two-week period leading to the deadline of collecting the data, the coordinating/ steering group at the PI was in contact with all designated parties to provide clarification. Finally, all data was submitted electronically. It is noted that in some case it was reported that there was no data to provide or that there was nothing to record. The data collected was analysed and many points are included in this report specifically as indicative examples verifying the strategy followed in Cyprus. In preparing this report government reports from various departments, syllabi, educational, pedagogical and informative tools, web-sites and final reports from various research programmes were used.

✓ <u>Governmental institutions:</u> Agriculture Research Institute, Cyprus Pedagogical Institute, Cyprus Tourism Organisation, Department of Agriculture, Department of Environment, Department of Fisheries and Marine Research, Department of Forestry, Department of Labour Inspection, Department of Secondary Education, Department of Vocational Education, Departments of Primary Education, Energy Service, Game Fund, Geological Department, State General Laboratory, Water Development Department, Department of Water, Department of Geology, the Game and Fauna Service, Directorate General of European Programs Coordination and Development, Life long Learning Agency, Research Promotion Foundation.

## Stakeholders:

- ✓ Commissioner of the Environment Office
- ✓ Association of Environmental and Ecological Organizations
- ✓ NGOs: AKTI, CARTET, CYMEPA, TERRA CYPRIA (the Cyprus Conservation Foundation), Cyprus Energy Agency, NGO Support Center, Future World Center
- ✓ <u>Academia:</u> University of Cyprus, Cyprus University of Technology, Frederick University, Nicosia University, European University, Open University of Cyprus.

  ☐ Business (please specify) \_\_\_\_\_\_

✓ Other (please specify) Pancyprian Union of Consumers and Quality of Life, Association for Wildli	fe,
Organization of Friends of Earth, Organization "OIKOGNOSIA",	

B. Report any particular circumstances that help clarify the context of the report – for example, whether the decision-making structure is federal and/or decentralized, and whether financial

constraints are a significant obstacle to implementation. (This information should not exceed half a page.)

#### TEMPLATE FOR REPORTING

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If necessary, provide relevant information on your country situation regarding this specific objective (up to 1,500 characters with spaces).

# 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<sup>2</sup> language(s)?

ESD Strategy has been translated in Greek.

Sub-indicator 1.1.1 Is the UNECE strategy for ESD available in your national language(s)?

Sub-indicator 1.1.2 Have you appointed a national focal point to deal with the UNECE Strategy for ESD?

Yes X No Cyprus Ministry of Education and Culture and the Ministry of Agriculture, Environment and Natural Resource have appointed their national focal points to deal with the UNECE Strategy.

Sub-indicator 1.1.3 Do you have a coordinating body for implementation of ESD?

Yes X No

Yes X No In the field of education, the Republic of Cyprus has established a coordinating body with the aim of implementing the National Action Plan for Education for Environment and Sustainable Development, which is based on UNECE Strategy for ESD and has already received the approval of the Council of Ministers in October, 2007. The aforementioned coordinating body for ESD national plan is the Cyprus Pedagogical Institute.

A Unit for Education for Environment and Sustainable Development has been created in order to implement and coordinate actions and activities for all levels of education (pre-primary, primary, secondary and technical-vocational education) across the border.

The decisions about various central actions for ESD are taken by an intersectional committee, chaired by the Director of the Cyprus Pedagogical Institutes, in which all the Directorates of Education participate with individual representatives. Moreover, representatives from other Ministries, Governmental Services, Public Authorities and Non Governmental Organizations usually participate during the discussion of issues that are of special interest or of specific concern to them.

The Cyprus Ministry of Education and Culture acknowledging the importance of having a permanent body for monitoring the ESD policy in national level, has set as a priority, in the framework of Ministry reformation, the establishment of a permanent Department of ESD, legally regulated, having as a mission to set in the core of educational system the ESD. For that that reason the Cyprus Ministry of Education and Culture is elaborating a specific proposal for the establishment of a permanent department of ESD which will submitted for approval at the end of the 2014, to the Ministerial Board of the Republic of Cyprus as well as to the Cyprus Parliament for approving the regulations that will governing the operation of the ESD Department. The official

<sup>&</sup>lt;sup>1</sup> Issues 1 to 6 are in accordance with the objectives of the UNECE Strategy for ESD (CEP/AC.13/2005/3/Rev.1).

<sup>&</sup>lt;sup>2</sup> 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.

ISSUE <sup>1</sup> 1. ENSURE THAT	POLICY, REGULATORY AND OPERATIONAL FRAMEWORKS SUPPORT THE PROMOTION OF ESD
	launching of ESD Department estimated to begin in 2015 and will be officially the Coordinating Body of ESD for the Republic of Cyprus.
Sub-indicator 1.1.4	Do you have a national implementation plan for ESD?
Yes X No □	The Republic of Cyprus through the Cyprus Ministry Education and Culture which has the responsibility for coordinating the actions for ESD amongst all interested bodies (governmental services, NGO's, academia, etc) has developed the National Action Plan for ESD. This National Plan is based on the UNECE Strategy for ESD and takes, also, in consideration the Cyprus particularities and needs. The National Action Plan is on an implementation stage since 2007 when it has been approved by the Council of Ministers.
	The "National Action Plan for Environmental Education focused on Sustainable Development" which can be downloaded from the official website of the Cyprus Ministry of Education and Culture is at the following address: ( <a href="http://www.paideia.org.cy/upload/Arthrografia/29">http://www.paideia.org.cy/upload/Arthrografia/29</a> 1 2008 sinoptiko keimeno stratigikou sxediasmos perivallontiki ekpaide <a href="https://www.paideia.org.cy/upload/Arthrografia/29">vsi.pdf</a> ).
	Also, it is noted that the Cyprus National Action Plan for ESD has been included in the revised Strategy for Sustainable Development as a horizontal issue of implantation under the axes "Education and Training". The official document can be downloaded by the official web-site of the Ministry of Agriculture, Environment and Natural Resources at the following address:( <a href="http://www.cyprus.gov.cy/moa/Agriculture.nsf/All/04D327E3AEAEA22DC22573B100627691?OpenDocument">http://www.cyprus.gov.cy/moa/Agriculture.nsf/All/04D327E3AEAEA22DC22573B100627691?OpenDocument</a> ).
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, <sup>3</sup> and other policy processes relevant to ESD?
Yes X No 🗌	The Cyprus Ministry Education and Culture Focal Point for UNECE Strategy for ESD is in close cooperation with the members of the Unesco National Commission for ESD and jointly are organising and implementing actions for ESD in formal, infornal and non-formal education on national, regional and international level.
Indicator 1.2 Po	licy, regulatory and operational frameworks support the promotion of ESD
Sub-indicator 1.2.1	Is ESD reflected in any national policy <sup>4</sup> document(s)?
Yes X No 🗌	Education has a central role in the Cyprus Government Policy and for that reason various Governmental Services include as a priority in their policy and national documents the aspect of ESD.
	Indicative examples are mentioned below:
	The Department of Environment (The Cyprus Ministry of Agriculture, Environment and Natural Resources) in Cooperation with the Ministry of Education and Culture view the ESD as a horizontal issue of implementation under the axes "Education and Training". The official document can be downloaded by the official web-site of the Ministry of Agriculture, Environment and

<sup>&</sup>lt;sup>3</sup> 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.

<sup>4</sup> Policy documents may include national strategies, plans, programmes, guidelines and the like.

Natural Resources at the following address:

(http://www.cyprus.gov.cy/moa/Agriculture.nsf/All/04D327E3AEAEA22DC22573B100627691?OpenDocument).

Also, the Cyprus Ministry of Education and Culture in its 2014 annual report indicates the issues of Environment and Sustainable Development as priority issues for the Cyprus Educational System. (<a href="http://www.moec.gov.cy/etisia-ekthesi/pdf/annual report en 2009.pdf">http://www.moec.gov.cy/etisia-ekthesi/pdf/annual report en 2009.pdf</a>).

Furthermore, ESD, its philosophy, principles and pedagogy are reflected in the background paper of Educational Reform (http://www.moec.gov.cy/analytika\_programmata/pdf/keimeno\_epitropis\_analytiko\_programma.pdf).

Other Governmental Services that include ESD in their national policies are:

Department of Agriculture: "Cyprus Rural Development Program 2007-2013 (www.moa.gov.cy/da).

Ministry of Health (State General Laboratory) includes the ESD in various reports as Multiannual National Control Plan (2007-2009), Annual Report 2009 programmes (<a href="www.moh.gov.moh/sgl">www.moh.gov.moh/sgl</a>).

Ministry of Industry and Trade, through the Energy Service includes the ESD in a) National Energy Efficiency Action Plan, b) National Action Plan for Renewable Energy (<a href="https://www.mcit.gorv.cy">www.mcit.gorv.cy</a>).

#### Is ESD: (a) addressed in relevant national education legislation/regulatory document(s); and (b) included in your national curricula and/or national Sub-indicator 1.2.2 standards/ordinances/requirements; at all levels of formal education, as understood by your education system in accordance with ISCED?<sup>5</sup> The Ministry of Education and Culture, within the framework of the New Education Reform undertaken, has officially incorporated the ESD process in the school syllabi by preparing the curriculum for ESD. This involves all levels of education and aims at shaping the Sustainable School which will act as an agent bringing about the change in education and society. As mentioned in the introduction of the curriculum for ESD Education in Cyprus, the program aims at making students able to provide conditions of sustainability and to adopt sustainable lifestyles, in a school which will be working as a model-agency that promotes sustainability and applies it in school life. It is noted that the programme is developing simultaneously covering the levels of education from pre-school to Higher Secondary and the Technical Vocational Education (see also: . http://www.moec.gov.cy/analytika\_programmata/analytika-programmata/10\_perivallontiki\_ekpaidevsi.pdf). At the moment the National Curriculum for ESD has been introduced officially in the primary education and this year is accumulated to be included officially to the pre-primary education. The curriculum of ESD, according to the educational level that is referred is developed in learning outcomes. For example in primary education, which is implemented for three years now, has been introduced with two teaching periods from A' to D' class under the frames of the subject Life Education. In E'-F' class EE/ESD is a separate subject and is taught in one teaching period. The program is developed in twelve thematic units of an international, regional and national interest (forest, water, litter, poverty, urban development, desertification, production and consumption, energy, tourism, means of transport, culture and environment, biodiversity). Each thematic unit includes: a) the basic notions and vocabulary related to the particular issue, b) the learning outcomes, in each level, which are differentiated according to the age of the students: a) 1<sup>st</sup> level: local (A'- B' class), "My neighbourhood / My community" b) 2<sup>nd</sup> level: national (C'- D' class), "My Community / My Country" (a) Yes X No □ c) 3<sup>rd</sup> level: international (E'- F' class), "My country /Our world" (b) Yes X No At the same time, the interconnections of the pursued learning outcomes are shown in each thematic unit, as these arise by the other thematic areas in the program of study of EE/ESD. The pursued learning outcomes of the interlinked thematic units are used, at the same time, to examine and strengthen the learning results of the particular unit under study, in a cross-curricular way. The above thematic units are a tool for each school to examine and study its own Sustainable Environmental Educational Policy (SEEP), which is based on the study and examination of an issue of sustainable development selected from all the participants in the learning process (students, teachers, principals, local populations etc) related to: a) the needs and the interests of students and teachers, b) the environmental problems faced by the school, c) the particular characteristics, problems and needs of the community in which the school is situated, d) the environmental issues which influence, in the short-term or in the long-term, the quality of life of people in a local and international level. For that purpose has been developed a specific guide for teachers in primary education, including all the learning outcomes for each thematic unit, for all the classes in primary education in order to help teachers implement effectively the curriculum of ESD, on the basis of the learning outcomes that must be attaint by each grade. The guide with learning outcomes is available on-line to all the teachers http://www.schools.ac.cy/klimakio/Themata/perivallontiki ekpaidefsi/epidiokomena apotelesmata/odigos efarmogis programmatos spoudon periv allontikis ekpaidefsis.pdf It is noted that for the year 2014-2015 the Cyprus Ministry Education and Culture has set as a priority task for all school in all educational levels the ESD. Particularly, the task "Sustainable Development: Greening the School, improving our quality of life" has been set as the flagship for our

educational system aiming to orient all the schools to become gradually, systematically and long term sustainable. It is noted that in the official announcement for the sustainable development task the Minister of Education and Culture emphasizes that the "Cyprus Ministry of Education and Culture aims to create schools that will operate as an examples of sustainability for the community and the civil society, towards the promotion of

<sup>&</sup>lt;sup>5</sup> International Standard Classification of Education (ISCED), UNESCO, 1997 (http://www.unesco.org/education/information/nfsunesco/doc/isced\_1997.htm).

	changes and interventions in the school, in the community with a guiding tool for the schools prepared by the Minneeded for implementing effectively this task. This tool <a href="http://egkyklioi.moec.gov.cy/Circular items/ShowCirculahttp://egkyklioi.moec.gov.cy/Data/dde4348a.pdf">http://egkyklioi.moec.gov.cy/Circular items/ShowCirculahttp://egkyklioi.moec.gov.cy/Data/dde4348a.pdf</a> , The Pedagogical Institute, in collaboration with the Depart to implement the ESD at national scale under the thematic (see also: <a href="http://www.pi.ac.cy/pi/files/anakoinoseis/201016">http://www.pi.ac.cy/pi/files/anakoinoseis/201016</a>	istry of Education an provides ideas, exam ritemsTable2.aspx? Cartments of Education of fields of: 'I Know my	d Čult ples, re Circula n, has i y World	ure in o esource <u>rId=dde</u> ncluded d' and	order to provide to all the school units the support that s, actions that can take place in school regarding ESD. 4348,  Il mandatory training programmes for teachers intended Action for Life'.
		ISCED levels 6	(a) Yes	( <b>b</b> ) <sup>7</sup> <i>Yes</i>	
		0	Yes	yes	
	<u></u>	1	Yes	yes	
		2	Yes	yes	
		3	yes	yes	
		4	No	No	
		<b>5</b> <sup>8</sup>	No	Yes	
		6	No	Yes	
		Teacher education		Vac	
		Teacher education	yes	Yes	
Sub-indicator 1.2.3	Are non-formal and informal ESD addressed in your relev				
Yes X No □	The non-formal and informal ESD consist the basic branch of the policy for education. For that reason one of the main actions that included to in the "National Action Plan for Environmental Education focused on Sustainable Development" is the promotion and the empowerment of non-formal education in Cyprus Educational System as a supporting and complementary structure to the work that school are doing. It is for this reason that the Pedagogical Institute serving as the promoter of the Strategy for Environmental Education and Sustainable Development has developed the networking of Governmental Environmental Education Centres and all the schools from all educational levels participated to their environmental education programs. In order all parties informed about the Network of the Centres for Environmental Education and its' inclusion to the formal educational policy as a complimentary structure to schools with the aim of connecting non-formal with informal education, every year a specific circular is distributed by the Ministry of Education and Culture, addressing the importance of non-formal education in ESD activities (see also: 10.04.7./19.9.2014:" Call for participation to the network of Environmental Education Centers).  Also, the task of the year 2014-2015 "Sustainable Development: Greening the School, improving our quality of life" is based on the conjunction of formal with non-formal education in the framework of ESD, setting as main priority the school and community collaboration in ESD. http://egkyklioi.moec.gov.cy/Data/dde4348a.pdf				

<sup>&</sup>lt;sup>6</sup> Education level in accordance with ISCED.

<sup>&</sup>lt;sup>7</sup> National curricula and/or national standards/ordinances/requirements.

<sup>&</sup>lt;sup>8</sup> For higher education institutions when answering: (1) regarding national legislation: this objective is focusing equally at the first stage of tertiary education (Bachelor), the second stage (MSc) and the third stage (PhD) while covering various aspects such as **service agreements/contracts**, **national strategies of Research and Development**, **university organization and studies acts**, or **general laws of higher educations**; (2) regarding national

and/or subnational standards/ordinances/requirements: special attention shall be devoted to indications of linking systems of **quality assurance and accreditation** (with regard to the Bologna process; see <a href="http://www.coe.int/t/dg4/highereducation/EHEA2010/BolognaPedestrians\_en.asp">http://www.coe.int/t/dg4/highereducation/EHEA2010/BolognaPedestrians\_en.asp</a> for information) for higher education institutions with ESD, as well as to **regulations of study programmes and study fields** which reflect the principles of ESD.

According to this initiative all the schools are encouraged to organize their Sustainable Environmental Educational Policy on the basis of working with the local populations and all the other stakeholders, in a specific issue that is related with the needs and particularities of the community and the school with the aim of intervene to the community with specific actions and measures that will improve the quality of life in local context.

Furthermore, in terms of formal education this is contained in the mainstream of Education and Training for the revised Strategy for Sustainable Development (see also: <a href="http://www.moa.gov.cy/moa/Agriculture.nsf/All/04D327E3AEAEA22DC22573B100627691?OpenDocument">http://www.moa.gov.cy/moa/Agriculture.nsf/All/04D327E3AEAEA22DC22573B100627691?OpenDocument</a>) Chapter 11. In the Measure 1.1 Vocational Training for Farmers of the Cyprus Rural Development Programme 2007-2013, formal ESD is addressed to all young farmers under 40 years old. In the Extension Service Programme formal and non formal education is addressed to all farmers, men and women. (<a href="http://www.moa.gov.cy/da">http://www.moa.gov.cy/da</a>).

In the statutes of the Federation of Environmental Organizations of Cyprus (FEO-NGOs) it is stated that sustainable development is part of the organization's scope (Art. 1c) and this could be achieved through all available means (Art. 2h), including publishing, film presentations, TV and radio shows (Art. 2g). Furthermore, the existence of the Working Group on "Informing, Enlightening & Environmental Education" is one of those established according to the Article 2a of the FEO-NGOs statutes.

The information could be retrieved from the offices of the FEO (NGOs) by mail, internet or fax. Here are our contact details: P.O BOX 28539, 2080 Nicosia, tel.: 0035722313750/22879240, fax: 0035722879241,info@oikologiafeeo.org/info-3@oikologiafeeo.org, www.oikologiafeeo.org

Upon becoming a member of CYMEPA, the Declaration of Voluntary Commitment «To Save The Seas» is endorsed and signed. This requires each Member to support the work of CYMEPA in informing and educating everyone on the importance of protecting the marine and the general environment

http://www.cymepa.net/en/

For CARDET the basic format of work in the area of ESD is through informal education approaches, which however also depend on the awarded projects.

- 1. Global Campus <a href="http://globalcampus.eu/">http://globalcampus.eu/</a>
- 2. Intercultural Awareness Raising http://globalcampus.eu/

#### Sub-indicator 1.2.4 I

Is public awareness in relation to ESD addressed in relevant national document(s)?

The Department of Labour Inspection (DLI) has developed a specialised website (<a href="www.airquality.dli.gov.cy">www.airquality.dli.gov.cy</a>) by which the public is informed about the air quality in Cyprus. The air quality data is recorded and presented hourly. In addition, within this site, there is a special part, named "kids corner", where a lot of information found enables children to learn about the environment.

Furthermore, ever since 2004 a week is annually dedicated to the use of bicycles and public transport within the city centres discouraging the use of private passenger vehicles. Within the framework of this 'Mobility Week', the DLI officers provide information to the public about the positive effects of such activities to air quality and the public participates in the events organised by the Environment Department for the 'Travel Smarter, Live Better' campaign.

Yes X No

Also, the Department of Environment undertakes various initiatives concerning public awareness in relation to ESD. Public environmental awareness is addressed as part of a comprehensive programme covering:

- 1. The environmental awareness campaigns undertaken by the Department of Environment and the systematic dissemination of environmental information (leaflets, reports) on a number of subject areas, including sustainable consumption and production, the EMAS and ECOLABEL schemes, industrial pollution, climate change, genetically modified organisms and sustainable development.
- 2. A funding programme for awareness campaigns and activities organised by non-governmental organisations, local authorities and schools.
- 3. The provision of an annual subsidy to non-governmental organisations active in raising public environmental awareness

(http://www.moa.gov.cy). Awareness campaigns are also carried out in relation to all the recycling schemes currently in operation (http://www.moa.gov.cy). Also, the Ministry of Education and Culture through the National Action Plan for "Environmental Education focused on Sustainable Development" includes a specific paragraph for the need for promoting measures for public awareness in ESD issues (http://www.paideia.org.cy/upload/Arthrografia/29 1 2008 sinoptiko keimeno stratigikou sxediasmos perivallontiki ekpaidevsi.pdf). The Ministry of Health (State General Laboratory) according to the provisions of the regulation 178/2002/EC, the food safety and the protection of consumers interests is secured through the open and transparent development of food law. A rapid alert system for the notification of risks to human health deriving from food or feed is established between the member states. Energy Service produced national documents concern measures that relates with SD and include clauses that impose the public awareness through the dissemination of information: • Eco Design Law: N.17(I)/2011 • 3<sup>rd</sup> National Energy Efficiency Action Plan (http://ec.europa.eu/energy/efficiency/eed/doc/neep/2014\_neeap\_en\_cyprus.pdf • National Action Plan for Renewable Energy http://ec.europa.eu/energy/renewables/transparency platform/doc/dir 2009 0028 action plan cyprus.zip The Game and Fauna Department: Within the relevant legislation on hunting and protection of wild birds it is specifically mentioned that all new hunters who wish to obtain a hunting license for the first time have to participate in hunting education lessons and pass a relevant test. Additionally, the same also applies to people who are convicted for poaching and / or violating other aspects of the national legislation for the Protection and Management of Game & Wild Birds (Law N. 152 (I) / 2003). The people who are convicted through this law can only obtain a hunting license only if they pay a higher / yearly fee which is comparable to how many convictions they may have, www.cypruswildlife.gov.cy. The Ministry of Agriculture, Natural Resources and Environment, through the magazine 'Agrotis' (Farmer) and the weekly programmes on TV and radio, newspapers that are sponsored, informs the farmers and the public in general about the Rural Development Programme and the Extension Service Programme in conjunction with the Sustainable Development and the Sustainable use of land. . CYMEPA operates extensive public awareness campaigns with the participation of companies, youth and especially schoolchildren. In the literature for these campaigns ESD is addressed. http://www.cymepa.net/en/ Does a formal structure for interdepartmental<sup>9</sup> cooperation relevant to ESD exist in your Government? Sub-indicator 1.2.5 A formal structure for interdepartmental cooperation in ESD hasn't been promoted yet, but there is a mechanism set up by the Ministry of Education and Culture for involving interdepartmentally all the departments of the Governmental Sector that are related with specific issues of ESD ( See indicator 1.1.3.) Yes ☐ No X Even though there is not a formal structure for interdepartmental cooperation to ESD, it is important to note that that Agency of the Commissioner of the Environment in Cyprus, attempts to operate as the coordinating body for bringing together, in accordance with the specific issues that is discussed, all the stakeholders from public and private sector, NGOS, trades and unions etc.

<sup>&</sup>lt;sup>9</sup> Between State bodies.

Sub-indicator 1.2.6	Does a mechanism for multi-stakeholder cooperation on ESD exist with the involvement of your Government? <sup>10</sup>
Sub-ilidicator 1.2.0	In the Republic of Cyprus there are two groups working on Governmental level to promote ESD. At the Ministry of Education and Culture <i>t</i> he
Yes X No □	decisions about various central actions for ESD are taken by an intersectional committee, chaired by the Director of the Cyprus Pedagogical Institutes, in which all the Directorates of Education with representatives from other Ministers, Governmental Services, Public Authorities and Non Governmental Organizations participate.  At the Ministry of Agriculture, Environment and Natural Resources a mechanism for monitoring the National Sustainable Development Strategy is established. In that body all the governmental departments, NGO's, Business, Scientific and Private Sector parties are participating.  A National Action Plan for the improvement of air quality in Cyprus, is prepared every year in co-operation with five other Ministries, the Federation of Environmental Organisations of Cyprus, the Union of Cyprus Municipalities and various Municipalities as indivituals, various NGOs and the Technical Chamber of Cyprus
Sub-indicator 1.2.7	Are public budgets and/or economic incentives available specifically to support ESD?
Yes X No □	Various Ministries include in their budgets financial resources for supporting ESD.  Indicative examples are mentioned below: The environmental awareness and education programme has a budget of €130,000 for 2010. Of this, approximately €30,000 has been assigned for the preparation and dissemination of leaflets and reports, and the organisation of awareness campaigns by the Environment Department. The remaining will be used for funding the educational and awareness campaigns of NGO's and other bodies. Furthermore, a total of €139,000 for 2010 will be given to NGO's as annual funding.  The Ministry of Education and Culture has a budget of almost 3.976.029 million Euros for the year 2012-2013 for ESD and EE. This budget is almost is three times more for the amount that given in 2010 for ESD, which was approximately 1 million euros. This budget includes the salaries of the stuff that is working in the field in ESD, the operation of Environmental Education Centers Network, the production of educational tools for ESD and for teachers', the seminars and trainings in ESD, the implementation of Curriculum of ESD and environmental education programs in schools (http://www.cystat.gov.cy/mof/cystat/statistics.nsf/energy environment 82main gr/energy environment 82main gr?OpenForm⊂=2&sel=2)  The Department of Agriculture, through the Measure 1.1 of the Rural Development Programme 2007-2013, will use € 3, 5 millions for the implementation of the educational programmes, € 40.000 for the implementation of the Extension Programme Services and € 2.4 million for the Cyprus Rural Network ( branch of the European Rural Network )  In the budget of the Energy Service, a clause for the implementation of seminars and info days in Cyprus is included. Part of this budget can and is used for seminars or info days that aim to inform the public about Renewable Energy Sources (RES) and Energy Saving.
	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?
Yes X No 🗌	ESD is part of the National Strategy for Sustainable Development. The National Strategy for Sustainable Development addresses education in Chapter 11, Education and Training, recognizing that "Education and training form the basis for sustainable development. The inclusion of the concept of sustainable development in the educational and training systems and processes is of vital importance as it provides the most direct means of communicating and understanding the interactions between the different parameters of sustainable development". The Chapter sets objectives and targets for promoting education and training for sustainable development, through the cooperation of Ministry of Education and Culture with other

 $<sup>^{10}</sup>$  For explanation see paragraph 46 of the UNECE Strategy for ESD.

parties such as the Ministry of Labour and the Social Insurance.

(as seen also at: http://www.moa.gov.cy/moa/Agriculture.nsf/All/04D327E3AEAEA22DC22573B100627691?OpenDocument)

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

Taking into consideration that ESD has been set as a priority issue in the Cyprus Educational System at all educational levels, the reformed curriculum included the above issues for ESD, which are considered as key themes at national, regional and international level. All the key issues are developed simultaneously at all levels of education (from pre-primary to upper secondary and they differ from one educational level to the other from the learning outcomes, which are defined for each educational level taking in consideration the developmental stage. All the key themes are approached in the curriculum in an interdisciplinary way and are infused to all the subjects of the curriculum. Additionally, through projects that are applied in each school, as "Eco-schools", "Learning about Forests", "Green Leaf" students have the opportunity to investigate all the above issues. Even though all the above issues are critical for Cyprus one could say that special attention is given to Climate Changes, Biological and Landscape diversity, Environmental Health, Natural Resources Management, and Citizenship.

Formal and non-formal learning is the basis of the curriculum of ESD/EE, across the formation of the sustainable school, which is the main concept of it. The curriculum of ESD/EE "aims at the formation of the sustainable school. A school which is a model of organisation promoting sustainability and adopting a school life which contributes in the long term and in a systematic basis through all the levels of education - in the formation of the citizens of tomorrow, who, beyond the adoption of sustainable ways of life, they will take decisions and undertake responsibility for their choices as active citizens in the efforts for protection and preservation of the environment and in securing their right of having a quality of life in a harmonious balance of the three elements of development-environment-economy, in there school and community" (http://www.moec.gov.cy/analytika\_programmata/analytika-programmata/10\_perivallontiki\_ekpaidevsi.pdf).

Special emphasis is given to the non-formal education by the Ministry of Education and Culture. For that reason and according to the Educational Reform non-formal education is an intrinsic part of students' and teachers' education. The network of Environmental Education Centres that is under the auspices of the Cyprus Pedagogical Institute has been officially introduced to the students learning procedure. Throughout the year, schools can visit and investigate various key themes of the ESD through the organised Environmental Education Programmes that are implemented at the Centres. All the programmes are organised on the basis of the learning and teaching methods that support ESD. Outdoor learning activities, field studies, discussions, experiential learning are some of the methods and approaches that are used. Also, schools are encouraged to visit museums, local trades, botanic gardens and various outdoor settings through the new curriculum so as to facilitate effective learning. Examples of the non-formal education and the learning/teaching methods that are used, can be found at the web-sites: (http://www.moec.gov.cy/dkpe/)

In Higher Education key themes are included to the compulsory courses of various departments.

An indicative example from Higher Education is mentioned below:

<u>Frederick University</u> offers key themes of ESD through specialised programs of study (e.g. MSc in Education for the Environment and Sustainable Development, distance master course in ICT and ESD and PhD in ESD) or within the programmes of study of most of its schools and departments. Some indicative examples of these programmes and modules are:

The Inter-Departmental Postgraduate Program on Education for the Environment and Sustainable Development which includes 6 compulsory (Environment and sustainable development: Concepts and Issues; From EE to ESD, a theoretical framework; Designing educational programs for ESD; research in ESD; Contemporary approaches to ESD; Non formal Education and ESD) and 6 optional modules (from a choice of 10 modules: Biodiversity and Education; Research Methods; Evaluation in ESD; Environmental Ethics; New technologies in ESD; Organising sustainable schools; Environmental Policy; Environmental Communication and the Media; Descriptive and inductive statistics; Education and training on the environment and sustainable development for organisations and associations.

The **School of Fine Arts**, Department of Architecture, offers a Bachelor of Arts in Architecture (4 years) leading to a Professional Degree in Architecture (4+1 years). The programme of Architecture is structured upon six thematic units, one of them is called "Technology and Environment", including 15 courses of 53 ECTS. More specifically the courses BATECH11 (SPECIAL ENVIRONMENTAL STUDIES: LIVING AMBIENCES), BATECH12 (ENVIRONMENT AND CLIMATE IN ARCHITECTURAL DESIGN) and BACULT11 URBAN PLANNING AND SUSTAINABLE DEVELOPMENT which focus completely on SD issues. Furthermore, SD issues are partly

elaborated within the ten (10) Architectural Design courses (BAARCH01-BAARCH10) while on the Diploma Thesis (BAARCH10), "subject area C: Architecture, Environment, Technology" is offered as an elective among three options

The course ABSO418 'Principles and Methods in Environmental management' offered by the **department of Business Administration.** The same department, also, offers a module on Environmental Economics (ABSE305) which examines issues of Economic growth vs. environmental damage, economic cost of a healthy environment. Coexistence of growth and a healthy environment. Role of government. Poverty, economic growth and the environment.

The **School of Social and Humanistic Sciences, in the Journalism Department** offers courses which situate the emergence of ecological thought and consciousness within the framework of the consequences of industrialisation and of the technological "conquering of nature". AJER460 "Mass media and the human rights" is a module that focuses on legal tools and known international and local institutions which tend to ensure the way in which human rights are established and are made familiar locally, as well as internationally.

In APOL 205 [Global Political issues] the ecological situation, and problems of war and peace and economic development are approached as elements of the emerging global reality which humanity has to confront as a global society. In the course AJER 300 [Cultural studies: Modernity and Post-modernity] the emergence of ecological thought and analogous citizen's movements is related to the crisis of instrumental rationality and the reexamination of cultural concepts of "traditional" elements [nature, indigenous knowledge etc]. Ecological reporting is also an integral part of professional courses which emphasise journalistic research and the organisation of information for media use. After the context created by these courses students can chose to investigate the issue more in independent studies which lead to the final research work for the BA. In this context we have had interesting works on the emergence of Cyprus ecological/environmental groups and on media reporting on ecological issues.

Information on the aforementioned modules can be found on the University's web page (<u>www.frederick.ac.cy</u>) and in the descriptions of the courses – TESE forms (knowledge tree).

Also:

Learning outcomes as well as teaching methods are clearly indicated in the reformed curriculum at all educational levels. They are defined in stages and concern all the key themes that are included in the National Curriculum.

Within the programmes of study of the Frederick University, several learning outcomes, as well as skills and values, aim at supporting ESD. The School of Architecture (<a href="http://www.frederick.ac.cy/fu\_documents/fu\_announcements/Prospectus\_10\_11/SAFAA.pdf">http://www.frederick.ac.cy/fu\_documents/fu\_announcements/Prospectus\_10\_11/SAFAA.pdf</a>), School of Education (<a href="http://www.frederick.ac.cy/ndex.php?option=com\_content&task=view&id=227&Itemid=91">http://www.frederick.ac.cy/ndex.php?option=com\_content&task=view&id=227&Itemid=91</a>), Distance Master Course in ICT and ESD (<a href="http://dl.frederick.ac.cy//en/ict-inesd-welcome-message">http://dl.frederick.ac.cy//en/ict-inesd-welcome-message</a>)

#### **The University of Cyprus**

At the Department of Education, University of Cyprus there are modules in the curriculum addressing key sustainability issues, like climate change, biodiversity loss, energy and water management etc. Other departments explicitly address sustainability issues in their curriculum, e.g. the dept of biology emphasize biodiversity conservation issues, the depts. Of Physics and the School of Polytechnics include in their curricula modules on sustainable energy use, the School of humanities and the Dept of Social Sciences address issues on poverty and sustainability, social and gender inequalities, etc.

More information could be find at http://www.ucy.ac.cy/fmweb/el/programmes-of-study

# **University of Nicosia**

At the University of Nicosia we have a BSc in Environmental Management and a BSc in Energy Oil and Gas. Through these programmes we have specific courses/modules dealing entirely with sustainable development, climate change, and waste management (<a href="http://www.unic.ac.cy/">http://www.unic.ac.cy/</a>).

# **Open University of Cyprus**

The Open University of Cyprus offers a postgraduate programmes of study in 'Environmental Conservation and Management' (at both Master and PhD levels) which adopts a multidisciplinary approach to the sustainable management of natural resources, the implementation of decontamination technologies and renewable energy sources, as well as the development of appropriate methodologies required to improve environmental management. The programme has two academic specializations (1) Environmental Protection (Energy and Pollution), and (2) Terrestrial Ecosystem Management. For more information and details of the programme you can visit this weblink

<u>HERE</u>	
	Indicator 2.1 SD key themes are addressed in formal education
Sub-indicator 2.1.1	
Sub-indicator 2.1.1	Are key themes of SD <sup>11</sup> addressed explicitly in the curriculum <sup>12</sup> /programme of study at various levels of formal education?  Phase II: Please specify in the table in appendix I (a) and use the scale. Indicate the results in the box below.
	A B C D E F
Yes X No 🗌	
14011 110	
Sub-indicator 2.1.2	Are learning outcomes (skills, attitudes and values) that support ESD addressed explicitly in the curriculum <sup>13</sup> /programme of study at various levels of
	formal education?  Place II. Place a modificing the table in approach II. (b) and use the scale. It diogto the negative in the bow help.
	Phase II: Please specify in the table in appendix I (b) and use the scale. Indicate the results in the box below.  A B C D E F
	The program is developed in twelve thematic units of an international, regional and national interest (forest, water, litter, poverty, urban development,
	desertification, production and consumption, energy, tourism, means of transport, culture and environment, biodiversity). Each thematic unit
	includes: a) the basic notions and vocabulary related to the particular issue, b) the learning outcomes, in each level, which are differentiated according
	to the age of the students:
	a) 1 <sup>st</sup> level: local (A'- B' class), "My neighbourhood / My community" b) 2 <sup>nd</sup> level: national (C'- D' class), "My Community / My Country"
	c) 3 <sup>rd</sup> level: international (E'- F' class), "My country /Our world"
	At the same time, the interconnections of the pursued learning outcomes are shown in each thematic unit, as these arise by the other thematic areas in
Yes X No	the program of study of EE/ESD. The pursued learning outcomes of the interlinked thematic units are used, at the same time, to examine and
Tes A To	strengthen the learning results of the particular unit under study, in a cross-curricular way.
	The above thematic units are a tool for each school to examine and study its own Sustainable Environmental Educational Policy (SEEP), which is
	based on the study and examination of an issue of sustainable development selected from all the participants in the learning process (students, teachers, principals, local populations etc) related to: a) the needs and the interests of students and teachers, b) the environmental problems faced by
	the school, c) the particular characteristics, problems and needs of the community in which the school is situated, d) the environmental issues which
	influence, in the short-term or in the long-term, the quality of life of people in a local and international level. For that purpose has been developed a
	specific guide for teachers in primary education, including all the learning outcomes for each thematic unit, for all the classes in primary education in
	order to help teachers implement effectively the curriculum of ESD, on the basis of the learning outcomes that must be attaint by each grade. The
	guide with the learning outcomes is available on-line to all the teachers
	http://www.schools.ac.cy/klimakio/Themata/perivallontiki ekpaidefsi/epidiokomena apotelesmata/odigos efarmogis programmatos spoudon perivallontikis_ekpaidefsis.pdf
	It is noted that all the learning outcomes in each grade and for each thematic unit are developed gradually on the axes of knowledge, awareness,
	skills, attitudes, values and participation/action.

For explanation see paragraph 15 of the UNECE Strategy for ESD.
 At the State level, where relevant.
 See footnote 12.

For example some indicative learning outcomes for the thematic unit Forest in level 1 (3rd and 2<sup>th</sup> grade): My community/My Country: Students:

- Know the basic operations of a forest ecosystem,
- Know the main characteristics of Cyprus forest
- Inform about the flora and fauna of Cyprus
- Understand the interrelation that exist between the climate changes and a forest ecosystem
- Be aware about the role of sub-urban forest in improving the quality of life in cities
- Appreciate the natural heritage of our country
- Develop skills of observation, comparison and recognition of various types of indigenous forest trees
- · Acquire skills of field studies and familiarization with the use of various resources and means
- Develop a positive attitudes for protecting and preserving various species from the flora and fauna of our country
- Participating in actions that related with the protection of forests
- Cooperate with all the relevant services and adapt a forest or park or botanical garden in their community.

Higher Education:

#### **Frederick University:**

All the modules and programs of study above, include learning outcomes (skills, attitudes and values) that support ESD.

A brief description of the modules and the learning outcomes is included for each module in the university's web site, for each program of study under the "courses" (www.frederick.ac.cy).

We include as an example the learning outcomes for a content module on SD issues (ENV300) offered as a compulsory module of the School of Education for primary and pre-primary education:

- 1. Analyse and explain contemporary environmental and sustainability issues
- 2. Analyse and reflect upon how the human activity affects the natural environment and critically asses the impact by using time (past and present) and place (local, peripheral and global) as examination parameters.
- 3. Critically assess the impact of environmental degradation upon people's quality of life, by co-examining social, financial and cultural aspects of environmental issues.
- 4. Examine contemporary environmental sustainability issues with respect to theories, ideologies and philosophical approaches.
- 5. Understand the term Sustainable development, its principles, characteristics, aims and objectives.
- 6. Explain why and how SD can address environmental, social and economic problems and become aware of their personal role in achieving a sustainable society.

# **University of Cyprus:**

The School of Education has developed materials for university students as well as elementary and high school students that explicitly address critical thinking skills, values consideration etc, e.g. on decisions concerning energy use habits, on understanding the differences of consumption locally produced food rather than imported, etc. <a href="https://www.ucy.ac.cy/teamEE">www.ucy.ac.cy/teamEE</a>

<u>Open University of Cyprus:</u> The learning outcomes of the programme in 'Environmental Conservation and Management' refer to a widely accepted techniques and tools which help to solve environmental problems (critical thinking skills). The programme carries out assessments on the environmental impact or design of photovoltaic parks and wind farms (technical skills). Students gain the skills required for conducting environmental research and actively participate in major environmental projects (research skills and active engagement). The programme also employs a multidisciplinary approach in addressing complex environmental problems yet also combines work experience with current trends in

	environmental management and protection. For more information on the learning outcomes of the programme you can visit this weblink <u>HERE</u>
Sub-indicator 2.1.3	Are teaching/learning methods that support ESD addressed explicitly in the curriculum 14/programme of study at various levels of formal education?
Yes X No □	Are teaching/learning methods that support ESD addressed explicitly in the curriculum*/programme of study at various levels of formal education?  Phase II: Please specify in the table in appendix I (c) what methods are of particular significance in your country and use the scale. Indicate the results in the box below.  A B C D E F  Please also specify for non-formal and informal education, as appropriate. If relevant data are available please also specify (provide examples on how it is done).  In formal Education and through the Curriculum of ESD/EE teaching and learning methods are indicated clearly. The main teaching and learning methods that are mentioned in appendix I (c), are included in the curriculum of ESD/EE and are explained in details and with examples through various educational tools that were published in National Level regarding the implemention of the Curriculum. For example the Cyprus Pedagogical Institute and the team that is responsible for implementing the Curriculum of ESD/EE in schools, in order to facilitate teachers to choose their school SD issue of investigation and examine it effectively developed two specific guides: a) "Ideas and Proposals on how to choose the investigating issue of SD in your School" and b) "Ideas and Examples for changes and interventions in your school and community on the basis of ESD". Those tools are based explicitly to the teaching and learning methods of ESD, as well as all the other educational tools that have been written for each thematic Unit e.g. waste, forest, wetlands, poverty, desertification, sustainable consumption and production models, which are available on-line to the two official; websites of Cyprus Ministry of Education for ESD/EE http://www.schools.ac.cv/klimakio/Themata/perivallontiki ekpaidefsi/index.html.  For non-formal education the teaching and learning methods that used are described clearly in the content of Environmental Education Programs which consist the main structure for non-formal education in Cyprus Education for Egn/EE and t
	DAHFOE PROFAMMINGH PRISAMONTINH DEPRISAMONTINH EKKIMAGETHE  EKHAGETHE  DAHFOE  OAHFOE PRIPAMONTINH DEPRISAMONTINH DEPRISAMONTI
	Higher Education: Frederick University:

<sup>&</sup>lt;sup>14</sup> See footnote 12.

The teaching techniques and pedagogy for ESD, is provided for both primary and pre-primary education student – teachers, through compulsory modules (ENV402 & ENV401 respectively). These modules are designed so as to prepare the teachers use suitable teaching techniques for the implementation of ESD in their corresponding levels of education. These approaches include discussion, debate, simulations, role play, values analysis and clarification, brain-storming and concept mapping and various outdoors techniques.

A special compulsory module on ESD teaching techniques, is included in the masters degree the Frederick University offers (MSc in ESD), (ESD503 CONTEMPORARY APPROACHES TO EDUCATION FOR THE ENVIRONMENT AND SUSTAINABLE DEVELOPMENT). Additionally another compulsory module within the same program, focuses on ESD505 – Designing Education programs for the environment and sustainable development. (<a href="http://www.frederick.ac.cy/msc-in-education-for-the-environment-and-sustainable-development-program-structure/msc-in-education-for-the-environment-and-sustainable-development-courses">http://www.frederick.ac.cy/msc-in-education-for-the-environment-and-sustainable-development-program-structure/msc-in-education-for-the-environment-and-sustainable-development-courses</a>) The description of the masters modules is not yet available on line.

#### **University of Cyprus:**

Teaching methods that support ESD in School of Education are based on inquiry and cooperation learning approaches in a variety of learning environments (outdoors, laboratory, virtual environments).

www.ucy.ac.cy/teamEE

#### **Open University of Cyprus:**

Teaching methods of OUC in the specific programme emphasize on the biological and landscape diversity, environmental protection, ecologocical principles and ecosystem approach, natural resource management, climate change and possible solutions, and environmental health issues The OUC helps its students to develop the ability to identify environmental risks through the scientific method, applied statistics, geographic information systems, remote sensing and environmental modelling. View Programme Structure section at this weblink HERE

	Indicator 2.2	Strategies to imple	ment ES	D are cl	early ide	ntified		
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								
Sub-indicator 2.2.1	courses? (d) a stand-alone project? <sup>17</sup> (e) other approaches?							
Phase II: If yes, please specify for different levels of education system in accordance with ISCED by ticking (V) in the table as appropriate.				V) in the table as appropriate.				
		ISCED levels	(a)	( <b>b</b> )	(c)	( <b>d</b> )	(e)	
		ISCED levels	Yes	Yes	Yes	Yes	Yes	
		0	✓	✓	✓	✓		
		1	✓	✓	✓	✓		
		2	✓	✓	✓	✓		
		3	✓	✓	✓	✓		
		4						
		5	✓	✓	✓			
		6		✓	✓		✓	
		Teacher education			✓			
(c) Yes X No  (d) Yes X No (e) Yes No X	Sustainable Development) and one on-line (ICT for ESD). There is also a masters degree that although not focusing on SD and ESD, it includes 2 modules related to it: (MA in Educational Sciences: Dynamic Learning Environments: ESPLE705 Sciences, Society, Technologies and environment & ESPLE803 School and Sustainable Development)  Information for the programs mentioned above and the activities of the Nature Conservation Unit can be found in: <a href="https://www.frederick.ac.cy">www.frederick.ac.cy</a> <a href="https://www.ncu.org.cy">www.ncu.org.cy</a> University of Cyprus:							
	The courses "Environment and Living Org largely devoted to to the teaching of SD is in elementary school (ucy.ac.cy/teamEE).  University of Nicosia:  A. Courses and disciplines of the progra at the Master level are student-led and cross a) Natural Resources Management-(expected).	sues. Their main aim is  umme "Environmenta ss-disciplinary and the	to develone to dev	op teache vation and the state of the state	ers-studer nd Mana ematic un	nts profes ngement' nits) offer	ssional cares at the Cored are the	Open University of Cyprus the following:

<sup>15</sup> 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.

16 E.g. geography or biology. For higher education, "subject" means "course".

17 A project is interpreted as a discrete activity with its own time allocation rather than a teaching/learning method.

- b) Methods and Techniques of Environmental Research-(provides students with the knowledge required to apply the necessary tools and techniques in environmental research. Topics include scientific methods, applied statistics, geographic information systems, remote sensing and environmental modeling)
- c) Environmental Protection (Energy and Pollution)-(providing students with the required knowledge of understanding environmental problems and how they can be dealt with the use of environmental technologies and demonstrate how the sustainable use of resources can be achieved in the existing legal framework and the environmental impact assessments, which should precede any human related impact on the environment).
- d) <u>Terrestrial Ecosystem's Management</u>-(examines the principal components of terrestrial ecosystems, the threats they face and the ways for their conservation and protection focusing on the application of widely employed techniques in terrestrial ecosystem management using real world examples).

The main aim of the programme is to offer students a high level of expertise in environmental management while, at the same time, promote dialogue on critical social and political levels.

### D. Stand-alone projects

The Open University of Cyprus conducts research on ESD and actively participates in external funded projects on sustainable development. either through its academic staff or postgraduate student initiatives. Moreover, the Terrestrial Ecosystems Management Lab (<u>temlab.ouc.ac.cy</u>) undertakes research which revolves around three pillars that intertwine:

- 1. Mediterranean Ecosystems with emphasis on islands and mountains 2. Landscape based approach to nature conservation
- 3. Spatial Analysis and modelling for species habitats and ecosystem services.
  - (a) Research projects currently under implementation funded by the European Unuion include the following:
    - Improving the Conservation Status of the priority Habitat 9560 (Endynamic Forestswith Juniperus SPP) in Cyprus-PROGRAMME Environment Life+
    - ACTION FP1204: GREEN INFRASTRUCTURE APPROACH: LINKING ENVIRONMENTAL WITH SOCIAL ASPECTS IN STUDYING AND MANAGING URBAN FORESTS-Cost Programme
    - IMPROVING THE CONSERVATION STATUS OF THE PRIORITY HABITAT TYPES 1520 AND 5220 AT THE RIZOELIA NATIONAL FORESTPARK-Environment Life+
  - (b) The doctoral programme in Environmental Conservation and Management aims to promote research in subjects relating to Biodiversity Conservation and the Ecology of Terrestrial Ecosystems. Qualified applicants with a research interest in the following topics may apply::
    - Research Assessment on the adaptive capacity of priority habitats to climate change
    - Identifying means to strengthen the coherence of protected areas
    - Evaluating the influence of landscape structure on biodiversity
    - Ecosystem Services Management in multifunctional Mediterranean landscapes
    - Island-scapes: The concept of insularity in Human and Environmental Sciences

Indicator 2.3 A whole-institution approach <sup>18</sup> to SD/ESD is promoted						
Sub-indicator 2.3.1	Do educational institutions <sup>19</sup> adopt a "whole-institution approach" to SD/ESD?					
Sub-indicator 2.3.1	Do educational institutions adopt a "whole-institution approach" to SD/ESD?  Phase II: If yes, please specify for all levels of your education system in accordance with ISCED by ticking (V) in the table as appropriate.    SCED levels   Yes					
Yes No X	will be supported in its efforts to organize their environmental-sustainable educational policy, based on a "Whole Institution Approach" and taking in consideration the school, the curriculum and the community. Non-formal and informal education is in the core of the policy of each school, since the intergenerational communication and the informal education are included as priorities for the schools. The whole institution approach is based on the planning and design by each school in an obligatory base of its own Sustainable Environmental Educational Policy (SEEP). SEEP is based on the study and examination of an issue of sustainable development selected from all the participants in the learning process (students, teachers, principals, local populations etc) related to: a) the needs and the interests of students and teachers, b) the environmental problems faced by the school, c) the particular characteristics, problems and needs of the community in which the school is situated, d) the environmental issues which influence, in the short-term or in the long-term, the quality of life of people in a local and international level.  At the end of the school year it is expected by the school unit to locate - according to the objectives achieved during the implementation of the SEEP - possible issues for study related to Environmental Education/Education for the Sustainable Development for the next school year. The aim is not the control, the comparison and the comparative evaluation of schools, but the self-improvement of each school unit in the basis of sustainable development, respect, protection and conservation of the environment.  The program of study is supported by the teacher's handbook for the application of the program of study for EE/ESD. For all the thematic units of the Curriculum of EE/ESD a supporting educational material was produced for the support of the educational process. Moreover, the criteria for self-					

A "whole institution approach" means that all aspects of an institution's internal operations and external relationships are reviewed and revised in light of SD/ESD principles. Within such an approach each institution would decide on its own actions, addressing the three overlapping spheres of Campus (management operations); Curriculum; and Community (external relationships).
 For higher education institutions: whole university, whole college or whole faculty approach (including inter-faculty approaches).

evaluation have been determined for each school unit for the identification of the degree of achievement of the SEEP of each school, and the criteria of self-evaluation of each class aiming at the identification of the degree of achievement of the aims of each class in relation to the SEEP of each school.

(http://www.moec.gov.cy/analytika programmata/analytika-programmata/10 perivallontiki ekpaidevsi.pdf).

(http://www.schools.ac.cy/klimakio/Themata/perivallontiki\_ekpaidefsi/epidiokomena\_apotelesmata/odigos\_efarmogis\_programmatos\_spoudon\_perivallontikis\_ekpaidefsis.pdf)

#### **Frederick University:**

Green Dot Cyprus in cooperation with IMH and IN Business organize the Green Dot Awards which strive to reward and promote forward-thinking businesses that create environmentally friendly products or services, and recognize revolutionary business plans and proposals that foster practices that promote the protection of the environment.

Frederick University won the award in the category of "Green Educational Institution".

http://www.imhbusiness.com/Awards/green-dot

### **University of Cyprus:**

The university of Cyprus has developed a Declaration of Environmental Policy, which highlight, among others, the commitment of the university in improving students environmental awareness, as well as sustainability good practices in the university campus.

https://www.ucy.ac.cy/environment/environmental-policy-statement-zip

More specifically, through the Declaration of Environmental Policy, the University is committed to develop new curricula which will embody SD approach in all subjects, it will support seminars, events and conferences on SD issues, and it will adopt specific practices for reducing energy and water consumption, waste production, and it will establish solid and liquid waste management treatment procedures and it will improve the efficiency of recycling procedure

Sub-indicator 2.3.2

Are there any incentives (guidelines, award scheme, funding, technical support) that support "a whole institution approach to SD/ESD"?

Phase II: If yes, please specify what schemes are available for all levels of your education system in accordance with ISCED by ticking (V) in the table as appropriate.

ISCED levels	Yes
0	✓
1	✓
2	✓
3	✓
4	
5	
6	
Teacher education	

Please also specify for non-formal and informal education, as appropriate. If relevant data are available please also specify (provide examples on how it is done).

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

Yes X No

http://www.schools.ac.cy/klimakio/Themata/perivallontiki ekpaidefsi/epidiokomena apotelesmata/odigos efarmogis programmatos spoudon perivallontikis ekpaidefsis.pdf, it is supported also for the two guides for schools in order to accommodate to choose the proper Sustainable Development issue for their Community and also to make the most proper interventions and changes for bringing change in school and community in the framework of SD. The implementation of whole school approaches except from the tools is supported by obligatory training courses for school principals, teachers and other stakeholders. Local authorities, NGOs, Public Services, in order to get familiar with the whole institution approaches and mainly learn about their role and how they can contribute for establishing a whole institution approach, towards the idea of a sustainable school. Those courses are conducted in school base, in Cyprus Pedagogical Institute, in Local Communities and in Environmental Education Centers.

In order to support schools to apply effectively the whole institution approach the CPI has created a platform and schools are uploading good examples and good practices from their work in school and community. Through this platform the schools are exchanging ideas regarding the implementation of Sustainable School though Whole School Approaches http://www.schools.ac.cy/klimakio/Themata/perivallontiki ekpaidefsi/endeiktika paradeigmata.html

Also, the CYMEPA Organization, in cooperation with all the Departments of Ministry of Education and Culture, awards a Green Flag "for Eco-Schools". In Cyprus 184 Schools were awarded with the Green Flag in 2010.

	Indicator 2.4 ESD is adda	essed by quality assessi	nent/en	hance	ment sy	estems	
Cult in diagram 2.4.1	(a) Are there any education quality assessment/enha	7 _ 7					
Sub-indicator 2.4.1	assessment/enhancement systems that address ESD in national systems?						
	Phase II: If yes, please specify for various levels of	your education system in			ith ISCE	ED, by ticking (V) in the table as appropriate.	
		ISCED levels	(a) Yes		(c) Yes		
		0	✓	✓			
		1	✓	✓			
		2	✓	✓			
		3	✓	✓			
		4					
(a) Yes X No $\square$		5					
(b) Yes X No [		6		<del> </del>			
(c) Yes No X		Teacher education		<u> </u>	İi		
	competences, resources and cooperation with extern the action plan is evaluated. The National Coordinat eco-schools have the responsibility to prepare their a criteria, they are awarded a green flag. (http://www.schools.ac.cy/klimakio/Themata/epistin	or (CYMEPA) prepares annual reports, on the base	annually	y the na e nation	ational c nal crite	criteria in accordance with international criteria. All ria. If they meet the requirements of the national	
Indicator 2.5	ESD methods and instruments for non-formal a	nd informal learning ar	e in pla	ice to a	ssess cl	nanges in knowledge, attitude and practice	
Sub-indicator 2.5.1	Are SD issues addressed in informal and public awa	reness-raising activities?					
	A number of NGO's, with governmental support at Indicative examples are mentioned below:  1) <u>Cyprus Energy Agency</u>	nd that of private sector,	develo	p jointl	y variou	us informal and public awareness raising activities.	
	Educational presentations at schools						
Yes X No □	One of the main objectives of the Energy Age educational presentations at schools in Cyprus Cyprus Energy Agency staff has visited more t 2,430 teachers on the topics of renewable energy	s. Since April 2009, whan 258 schools of all	hen the	e Ener ional l	gy Age evels, v	ency has began its activities of education, the which informed more than 31,933 students and	

<sup>&</sup>lt;sup>20</sup> 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).

All presentations are available electronically on the website of the Cyprus Energy Agency www.cea.org.cy on the educational corner.





# Printing of posters with energy saving tips

Piraeus Bank Cyprus was the exclusive sponsor for the printing of 70.000 posters addressed to children with 4 simple saving tips and slogan protect the environment. The aim is the posters to be distributed to all pupils during the educational visits to the elementary schools in Cyprus. Until 2014 more than 50,000 poster have been distributed. The objective of the Energy Agency is to create the same poster for high school students when the necessary additional financial resources will be available.



# Monthly Educational Quiz

The Monthly Quiz is available online since October 2009. The creation and operation of the monthly quiz was sponsored by the



Electricity Authority of Cyprus. The quiz is available in the Kids Educational Corner on the website of CEA <a href="https://www.cea.org.cy">www.cea.org.cy</a>.

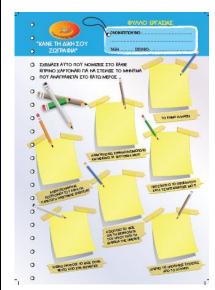
In the competition can participate children aged between 6 to 12 years. They can register and respond correctly to 10 questions on renewable energy, energy saving and energy production. At the end of each month a winner emerges who responded correctly to 10 questions and CEA sends an educational award.

# **Training teachers**

CEA has created two reports: "Notes for the elementary education teacher on RES and Energy Saving Techniques" and "Notes for the high school teachers on RES and Energy Saving Techniques". Due to lack of financial resources, both publications are available electronically only on the website of the Energy Agency www.cea.org.cy at the educational corner.







<u>Working sheets</u> (that distributed during the educational presentations and working together with kids for better understanding of the educational presentations). The Cyprus Energy Agency created the working sheets with drowns, crosswords, word search puzzles, drowning the slogan, text completion exercises. The working booklets distributed to teachers to use it as a supplementary educational material or distributed to students as a supplementary educational material. The

working sheets are available on the kids corner on the website of the CEA www.cea.org.cy



Work sheets for homework:

# RES and RUE training of targeted groups

Moreover CEA conduct presentations to Communities to inform citizens on energy efficiency and RES applications on the domestic sector. The presentations have specific target to inform people on these matters These presentations are also available on-line. When requested a CD containing the presentations is distributed or printed handouts. The Cyprus Energy Agency continues conducting presentations to the citizens either to rural or urban areas in order to informed about energy efficiency and RES applications in the domestic sector, energy saving at home, bioclimatic design and garden and Smart meters. The presentations have specific target to inform people on these matters and these presentations are also available on-line. These presentations have been updated regularly. During the presentations conducted during this reporting period more than 45 Communities/Municipalities were visited by CEA staff in organised events and more than 2.000 people attended CEA presentations.





RES – Applications in the domestic sector and investments on large RES systems



**Energy Saving at Home – Applications in the domestic sector** 



Bioclimatic design and garden

**Smart meters – Future installation** 

Moreover, the Cyprus Energy Agency has developed presentation about the "Green House - A house of almost zero energy", that was presented with great success to Local Authorities districts in collaboration with the Environment Commissioner and the Youth Boards.

#### Sensitization of specific groups

CEA in order to increase public awareness with RES technologies organised an excursion for students and members of Community Councils to the first wind park in Cyprus that is located at Paphos.

CEA also organises visits to the PV technology park (University of Cyprus) for the presidents and members of Community Councils to get acquainting with PV technology. CEA also organises visits to places where there are use of technologies of renewable sources of energy and energy saving equipment and more energy efficient public buildings.

CEA was also participated as instructor in training for unemployed engineers organised by Cyprus Productivity Centre and Scientific and Technical Chamber (ETEK). More than 25 unemployed engineers were trained on the topics of RES and RUE.

The Cyprus Consumers Association has invited CEA staff to give lectures during the annual educational programmes for adults. Up to now CEA staff participated in training programmes as invited speaker, in Lefkosia, Pafos and Larnaka (330 participants)

#### Technical Publications of CEA

CEA prepared 5 new technical publications that are available on CEA website www.cea.org.cy.

- 2) **Cyprus Environmental Studies Centre (CESC)** is offering the student project of assessing the 'Environmental sustainability of Tourists and Hotels'. This looks at the impact of tourisms on the local and national environment. This obviously has ESD at its learning core
- 3) The FEO (NGOs): The SD issues are raised in all public awareness activities of the FEO (NGOs). Some of these activities are: a) the proclamation of the FEO (NGOs) given to the public on the annual events about the World Environmental Day is always focused on the possible positive impact of sustainable consumption and lifestyle on the protection of the environment and quality of humans' and other living organisms life there was a leaflet published entitled "Sustainable Consumption and Other Measures of Sustainable Development as response to the financial crisis, b) a signature on the letter sent to European Parliament by many environmental NGOs regarding the urgency for Common Agricultural Policy Reform, c) the annual events about European Mobility Week in which the FEO (NGOs) informs the public on ways to achieve sustainable mobility and sustainable ways of living in order to maintain good air quality and d) the message given to the public on the annual events about the celebration of Earth Hour is the importance of sustainable living in saving the planet and reduce the consequence of climate change.

For all those examples and many more events, there are press releases available on the website of the FEO (NGOs): <a href="www.oikologiafeeo.org">www.oikologiafeeo.org</a>. In the framework of the public awareness events, the FEO (NGOs) publish relevant informative leaflets which can be retrieved from the offices of the FEO (NGOs) by mail, internet or fax. Here are our contact details: P.O BOX 28539, 2080 Nicosia, tel.: 0035722313750/22879240, fax: 0035722879241,info@oikologiafeeo.org/info-3@oikologiafeeo.org, www.oikologiafeeo.org

4) The Energy Service (Ministry of Commerce Industry and Trade) (MCIT): The Energy Service of MCIT is organising campaigns and seminars to inform the public about different issues regarding RES and ES. These campaigns address issues related to government support schemes for RES and ways for Energy Saving. Moreover, the Energy Service, in cooperation with the Ministry of Education, has initiated an "Educational Program for Energy". The program includes presentations to schools from primary to high school level that concern energy matters, RES and ES. In addition to the presentations, the Energy Service published 2 books that include all the issues that are addressed in these presentations as well as other informative

brochures. Finally, in the website of the Cyprus Institute of Energy one can retrieve an online educational programme. This web-based programme was created for the students of all levels in order to enhance the general effort, which is to promote environmental consciousness amongst the students. The website is: www.cie.org.cy Also, information can be retrieved from the website of MCIT: www.mcit.gov.cy Another initiative of the Energy Service of MCIT that derives from the National Energy Efficiency Action Plan (an obligation under Directive 2006/32) is the action to appoint and afterwards train an Energy Officer in each Public Authority responsible for the monitoring and listing of all activities related to Energy Saving within their work environment. These Energy Officer are responsible to promote ES awareness between their colleagues in order to minimize the consumption of energy of their Service. Moreover the Energy Service is organizing an annual Pupil Competition, where all public and approved private secondary and technical education schools may participate. The competition includes research projects by pupils and/or experimental/laboratory applications, which are directly related to RES or energy saving. Projects must focus on smart and functional ways to save energy, as well as on ways or technologies which may be used to improve energy efficiency. The best three projects from Secondary Schools and the best three projects from High Schools/Technical Schools are awarded pecuniary prizes in an official ceremony held at the end of each school year. (ref. page 36 of the 3<sup>rd</sup> national energy efficiency action plan of Cyprus http://ec.europa.eu/energy/efficiency/eed/doc/neep/2014 neeap en cyprus.pdf) 5) The Cyprus Geological Survey occasionally publishes informative leaflets that are available in both hard copy and electronic form. The purpose of these leaflets is to raise public awareness for geologically oriented issues concerning the environment and sustainable development. These leaflets can be downloaded from the Cyprus Geological Survey website (http://www.moa.gov.cy/gsd). 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? 1) Department of Environment (Ministry of Agriculture, Natural Resources and Environment) (MANRE): Training courses on water and soil pollution issues and the use of the best available techniques for farmers are regularly organised. A number of trainings for small companies and various industrial sectors have also been organized to promote tools such as EMAS and ECOLABEL, which is one of the objectives of the sustainable development strategy. Additionally, seminars and training programs are organized on waste management and recycling. Seminars have been carried out for small companies and trade unions on environmental noise from outdoors equipment and the ozone depleting substances. Seminars and presentations are regularly organised for farmers and locals on issues relating to nature conservation and the Natural 2000 Network. Subsidies are given to companies for the establishment and verification of environmental management systems under the EMAS Regulation. 2) The Cyprus Pedagogical Institute (the Cyprus Ministry of Education and Culture): CPI, in cooperation with the National Commission of Yes X No Environment and Health of Child, organise two courses for the teachers and parents in order to inform them about environmental risks on various issues. Also the CPI organises in school based seminars on parents in order to become aware and sensitise them about their role in SD (www.pi.ac.cy). 3) For the implementation of Measure 1.1, The Department of Agriculture is a Governmental Department of M.A.N.R.E and the Government contributes 50% of the budget (3.5 millions of Euro). Meanwhile, the E. U. Contributes for the rest of 50%. For the implementation of the Extension services programme the Government contributes 100% of the budget (€ 40 000). Training on organic farming, on plant and animal production, on environmental issues etc. have been organised in Cyprus since 2005 through the Department of Agriculture for Long-term Vocational Training of Farmers (Measure 1.1) 250 hours of lessons for young farmers and 100 hours for farmers over 40 years old who have no experience To support and encourage farmers to follow the educational programmes there is a daily allowance of € 68.

Through the Cyprus Rural Network Programme educational programs are implemented in rural areas by all members of the network (Producers groups, farmers trade unions, LEADER Groups etc) www.moa.gov.cy/da, www.ead.com.cy 4) Throughout the years the CESC has run many activities aimed at raising awareness for not only the public but also targeted audiences. e.g. 'Young Farmers educational seminars' this was several seminars specifically for farmers to raise awareness of good farming practice 5. There is always support for work-based learning which addresses Sustainable Development issues, mainly through the participation of the FEO (NGOs) with representative at about thirty state Committees and Boards which relates with the environment and gives permits to suggested applicants. Furthermore, the Agricultural Exhibitions (AGRO-EXPO) which are organised my the state every two years and the FEO (NGOs) participates to inform the farmers and other stakeholders about sustainable agriculture and bad agricultural practises such as Genetically Modified Organizations and overuse of pesticides. 6.Cyprus Energy Office: The work-based learning is provided through the enterprises that are members of SEAPEK <a href="http://www.seapek.com/">http://www.seapek.com/</a> Cyprus Association for the promotion of Renewable Energy Sources. Also the Cyprus Energy Agency through its participation in the GERONIMO II project has provided training to farmers for free and arranged study visits in Cyprus and abroad. Please visit the web site http://energy4farms.eu/Moreover, the Cyprus Energy Agency participates in the EUREM plus project which aims the training of energy managers. The first cource of 127 hours has been finalised. The educational programme was organised with OEB (Federation of Employers and Industrialist). Please visit the web site http://de.eurem.net/plugins/viewsource/viewpagesrc.action?pageId=293502979Also, the Cyprus Energy Agency participates in a Life Long Learning project the EXEM project which aims to develop traing materials for energy managers. Please visit the web site http://www.exemproject.eu/Finally the Cyprus Energy Agency in collaboration with several stakeholders in Cyprus e.g. Scientific and Technical Chamber, Human Resources Development Authority and Cyprus productivity centre participates in the Build Up Skills project we-qualify which aims the training of workers in the placement of thermopanes, shadings, windows, external insulation and biomass boilers. Please visit the web site http://www.cea.org.cv/we\_qualify/ 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? Phase III: Please specify, including the results available for (a) attitude, skills and values, and (b) knowledge. a) AKTI NGO runs surveys to assess the perception of public and stakeholders as outcomes of ESD activities. Some of the results are published in www.akti.org.cv b) Cyprus Energy Office: For the evaluation of educational presentations in schools Energy Agency proceeded to create 2 assessment questionnaires: for teachers and students. The questionnaires were created so that the Energy Agency to be able to assess the educational presentations and to improve them. Regarding the students' questionnaires, distributed before the educational presentations. Students answer the first part, on whether or not to Yes X No know some general information on renewable energy, fossil fuels, for energy-saving technologies and use of renewable energy. After the tutorials, students answer the second part of knowing whether or not the same information asked in the first place, they can distinguish some technologies and ways of using renewable energies and energy saving. The results of the survey are available in Greek on the web site of the Cyprus Energy Agency www.cea.org.cy c) CARDET: At the end of each activity of the projects "Global Campus" and "Intercultural Awareness Raising" evaluation forms are distributed to the participants. Around 70% state that they would like to know more about ESD issues, while they find informal education activities interesting and engaging.

	Indicator 2.6 ESD implementation is a multi-stakeholder process <sup>21</sup>					
Sub-indicator 2.6.1	Sub-indicator 2.6.1 Is ESD implementation a multi-stakeholder process?					
Phase II: Please specify in the table in appendix II (a) and (b) and use the scale. Indicate the results in the boxes below.						
	2 examples of good practice are referred in appendix II					
Yes X No	(a) According to the UNECE Strategy on ESD (b) According to the UN DESD					
	A B C D E F A B C D E F					

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

If necessary, provide relevant information on your country situation regarding this specific objective (up to 1,500 characters with spaces).

According to educators' initial training it is noted that all universities offer compulsory or optional modules on Environmental Education and Education for Sustainable Development.

For Example, Frederick University offers on a compulsory basis, one module on sustainable development issues (ENV300), one on ESD methods (ENV402), one science module integrating environmental issues within science education (SCI100) and on an optional basis 2 more modules specialising on science and ESD. Students interested on these issues, also, have the option of choosing ESD topics for their dissertation.

Similarly, the Department of Pre-Primary Education offers 2 modules on sustainable development issues and education (ENV301: Environmental and Social Studies at pre-primary Education and ENV401 Approaches of Environmental Studies at Pre-Primary Education).

It is important for Cyprus that a cross-departmental postgraduate program on Education for the Environment and Sustainable Development, addressing a variety of professionals (including educators who wish to integrate SD in their professional practice) has been offered by the Frederick University since 2009. The Postgraduate Programme "MSc in Education for the Environment and Sustainable Development includes 6 compulsory (Environment and sustainable development: Concepts and Issues; From EE to ESD, a theoretical framework; Designing educational programmes for ESD; research in ESD; Contemporary approaches to ESD; Non formal Education and ESD) and 6 optional modules (from a choice of 10 modules: Biodiversity and Education; Research Methods; Evaluation in ESD; Environmental Ethics; New technologies in ESD; Organizing sustainable schools; Environmental Policy; Environmental Communication and the Media; Descriptive and inductive statistics; Education and training on the environment and sustainable development for organisations and associations.

(http://www.frederick.ac.cy/fu\_documents/fu\_announcements/Prospectus\_10\_11/SAFAA.pdf), **School of Education** (http://www.frederick.ac.cy/), MSc in EESD program (http://www.frederick.ac.cy/index.php?option=com\_content&task=view&id=227&Itemid=91\_

Also, University of Cyprus in initial teachers training courses offers the subject EPA187: Environmental Issues. Students have the opportunity to inform about various environmental issues and also introduce to the main principals of Environmental Education and how EE can be implemented in school procedure (http://www.ucy.ac.cy/data/scienceed/Undergrad10-11GR.pdf) (p.166)

University of Nicosia in student teachers initial training (primary and pre-primary) offers a series of subjects in sciences include principals and didactic methods of ESD (http://www.unic.ac.cy/nqcontent.cfm?a\_id=5624), (http://fysikesepistimes-unic.blogspot.com)

Regarding Educators' in-service training it is noted that this is the responsibility of the Cyprus Pedagogical Institute which offers compulsory and optional in-service training courses for educators at all educational levels, as well as for the leaders and administrators. Concerning the optional in-service training of teachers since 2004, programmes are organised for their training in three axes: Education Environment and Sustainable Growth on issues with regard to: a) the theory and methodology of ESD, b) the

<sup>&</sup>lt;sup>21</sup> For higher education institutions: this covers the issue of **university "outreach"** (meaning a wide spectrum from regional integration, business cooperation and transdisciplinarity to eco-procurement and research-education-cooperation).

planning of educational programmes directed in ESD, c) the basic principles of organisation and planning of a sustainable school, d) the use of the local community and the Centres of Environmental Education as points of connection with the school for the promotion of issues of sustainable development, in the frames of connection of formal with informal education. d) Sustainable School: Organisation and Implementation. This year compulsory courses for ESD and national curriculum have been introduced for teachers at all educational levels, since ESD is officially part of the reformed Cyprus National Curriculum. For that reason, one or two teachers from all the schools will be trained on how ESD will be implemented in schools, as disseminators to their school unit.

Leaders and administrators is one other task group that is training in ESD and for that reason compulsory courses are offered concerning the leaders and administrators' role in implementing ESD in their school (<a href="http://www.pi.ac.cy/pi/index.php?option=com\_content&view=article&id=379%3A-2010-2011&catid=51%3A2010-07-16-06-33-38&Itemid=85&lang=el">http://www.pi.ac.cy/pi/index.php?option=com\_content&view=article&id=379%3A-2010-2011&catid=51%3A2010-07-16-06-33-38&Itemid=85&lang=el</a>). Also, seminars based on non-formal and informal education are offered through the net work of Environmental Education Centres of Ministry of Education and Culture (<a href="http://www.pi.ac.cy/pi/index.php?option=com\_content&view=article&id=200&Itemid=159&lang=el">http://www.pi.ac.cy/pi/index.php?option=com\_content&view=article&id=200&Itemid=159&lang=el</a>).

Indicator 3.1 ESD is included in the training <sup>22</sup> of educators		
Sub-indicator 3.1.1	Is ESD a part of educators' initial training? <sup>23</sup>	
Yes X No 🗌	Phase II: Please specify by filling in the table in appendix III.  For Frederick University see the indicators: 2.1.1 and 2.1.2  For University of Nicosia see the indicator: 2.3.1.  For Cyprus University see the indicators: 2.1.1. and 2.1.2.	
Sub-indicator 3.1.2	Is ESD a part of the educators' in-service training? <sup>24</sup>	
Yes X No □	Phase III: Please specify by filling in the table in appendix III.  In relation to ESD, Cyprus Pedagogical Institute which is the responsible body in Cyprus for teachers, principals and other stakeholders in schools is offering various types of training courses, both obligatory and optional, The introduction and upgrading of the quality of education and teacher training towards ESD emerged as a necessity, on the one hand, by raising the issues of environment and sustainable development, both through the introduction of the Curriculum of EE/ESD and through the enhancement of environmental education programs and environmental interventions in the school and the community.  The programs and courses offered vary in type and content, covering various aspects and elements of ESD and concern various key stakeholders (principals, teachers of all educational levels, inspectors).	
	Teacher in service education courses for ESD  As for the training of teachers in ESD, various series of compulsory and optional seminars and courses are promoted in school-based training, central training, education and training courses through action research, fieldwork training and training in outdoor environments, by the Cyprus Pedagogical Institute, which is the responsible body for the teachers in-service training.  More particular, in the level of compulsory education in ESD issues, two series of programs of education and training of teachers in primary education are carried out throughout the year. The mandatory training involves all teachers of schools. Specifically, each school is required to choose a teacher, as the coordinator of the school for EE/ESD, who is trained in the implementation of the curriculum for EE/ESD, and then acts as the	

<sup>&</sup>lt;sup>22</sup> ESD is addressed by content and/or by methodology.

<sup>&</sup>lt;sup>23</sup> For higher education institutions: The focus is here on existing **teacher training at universities/colleges** regarding SD and ESD for university/college teachers.

<sup>&</sup>lt;sup>24</sup> 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.

trainer of EE/ESD of his/her colleagues of his/her school unit.

- A) Compulsory Education and Training courses of teachers for the implementation of the NC (National Curriculum) of EE/ESD. It is implemented on an annual basis at three time periods. It is developed in three phases: a) the first phase informs teachers about the philosophy, principles, pedagogical framework of the NC, as well as the way of its effective implementation, b) the second phase concerns the explanation of the methodological framework for the implementation of the NC and the teaching techniques used, as well as the basic steps for planning the ESD School plan [Sustainable Environmental Education Policy (SEEP)] of the school, c) the third phase of the training of teachers involves the implementation of quality standards relating to the assessment of the school unit in relation to the effective promotion of SEEP in their school.
- B) Compulsory Education and Training of Teachers for ESD and implementation of the National Curriculum, in school basis, in the form of school networks. This program is annual, also, and it is addressed to teachers of primary education. The schools in each city are divided into networks. Each network consists of 10 schools which have common geographical, cultural and social characteristics. On the frames of this program, teacher education is carried out on a school basis and it is entirely of a practical nature. The program is developed in three phases: a) In the first phase, teachers, one from each school, are planning their school's ESD School plan (SEEP). They discuss and exchange opinions about difficulties which may arise, as well as examples of good practices in the organization, the issues of investigation, the objectives, interventions and changes promoted to each school, b) in the second phase, lessons are taught in the classes on ESD. The lessons are based on the ESD School plan, which each school has. Discussion follows, to give feedback on the lessons taught (content, teaching techniques, student participation, organization of the learning process, etc.), c) in the third phase, the teachers make a self-assessment of the implementation of ESD School plan (SEEP) under the guidance of the advisors of ESD.

During the years 2011-2013 720 teachers from Primary Education participated in the compulsory education and training courses for ESD.

#### Optional programs of education and teacher training in ESD

Apart from the mandatory educational and training programs offered by the Cyprus Pedagogical Institute, optional teacher education and training courses for ESD are offered, which last 15-20 hours each and are in the following aspects:

- The sustainable school
- The teaching strategies of ESD
- The use of external environments as key tools and means for ESD
- Training in the use of new technologies in ESD
- Training in the use and application of educational materials produced by groups of teachers, to support the areas of the curriculum.

The above training courses for ESD, concern educators at all levels of education (Pre-primary, Primary and Secondary Education). These courses can be attended independently or, a teacher can follow all the series of programs, on an annual basis to a training course of 80-100 hours.

These seminars are empirical, interactive and experiential. They are organized in various areas such as Environmental Education Centers, museums, local trades, botanic gardens etc. All education and training programs offered are posted on the website of the Pedagogical Institute (http://www.pi.ac.cy/pi/index.php?lang=el).

Overall, 200 teachers from all educational levels participated in the optional training programs for education for Sustainable Development, for the years 2011-2013.

*Frederick University:* Additionally to the modules described in the former indicators, we run research especially focusing on teacher training. e.g. Project Induction explored new approaches to in-service teacher education, using adult learning approaches, such as mentoring and professional communities of learning for ESD induction.

	(http://www.ncu.org.cy/induction/index.html)		
Sub-indicator 3.1.3	Is ESD a part of training of leaders and administrators of educational institutions?		
Yes X No □	Education and Training Programs in ESD for leaders and Principals In regard to school principals, it is noted that the field of ESD has been introduced in the compulsory education and training courses of newly appointed principals of Primary and Secondary education. In the context of the specific field, the principals are introduced to the basic principles and aspects of ESD, to the concept of sustainable school and the way of planning and implementation of ESD School plans. However, particular importance is attached to the area of leadership and sustainable schools, since the role of principals is crucial for creating sustainable schools.  Accordingly, the obligatory courses for assistant directors in secondary education include a module for ESD. Assistant directors are introduced to the key principals of ESD, as well as to the concept and content of sustainable schools. In addition, their role in promoting ESD in school is discussed, as well as the innovations, which can be promoted in a school through the newly established curriculum for EE / ESD. During the years 2011-2014 220 Principals from Primary Education, 95 Principals from Secondary Education and 350 assistant principals from Secondary Education participated in the compulsory education and training courses for ESD.		
	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?		
Yes X No □	There are three extended networks operating at the moment in Cyprus. One such network is the network of Eco-schools. Teachers are divided according to the 5 districts (excluding the occupied part of the island) and meetings are arranged (one day every two weeks) for the necessary coordination, exchange of ideas and experience and practices. Additionally, all the schools in each district organise jointly various events for the environment and sustainable development.  The second network is the network created through by teachers and their participation to the network of environmental education centres. These teachers, through their participation in the work done at the environmental education centre, connected with the personnel of the centres and with colleagues from various districts and they hold meetings of three day duration each time, four times a year to exchange good practices, their thoughts and ideas about the way that they introduce the non-formal education to their school practice.  The third network is related to the reformed national curriculum and how ESD will be introduced to the school practice. Teachers from all levels of education that will attend the training courses for ESD/EE and national curriculum will operate as coordinators and facilitators for their schools and will be the liaison persons amongst the supporters/counsellors from the Ministry of Education and Culture and their schools.  Frederick University: Even though cooperation for ESD are not yet occurring for the modules delivery, cooperation take place within research programs (e.g. Induction, CLIMASP, etc).  For the delivery of the Masters MSc in ESD program, we have the collaboration of academic staff from various schools and departments of the University (e.g. Education Department: Primary Education, Pre-Primary Education, School of Social Sciences: Journalists)		

Sub-indicator 3.2.2	Are ESD networks/platforms supported by the government in any way? <sup>25</sup>
Yes X No 🗌	Please specify how, listing the major ones, and describing them as appropriate.  The Ministry of Education and Culture supports the networks mostly by allowing teaching time relief from duties so as teachers will be facilitated in conducting their meetings.  Also, counsellors and trainers from the Ministry of Education and Culture, as well as from the Cyprus Pedagogical Institute aid their efforts by supporting and guiding them and discuss their ideas, practices, as well as obstacles that they meet. Support is also provided in the form of materials and educational tools.  The Energy Service as mentioned in instrument 2.5.1 provides a web –based Educational Program for Energy that can be accessed in the following websites <a href="https://www.mow.cie.org.cy">www.mow.cie.org.cy</a> , <a href="https://www.mow.cie.org.cy">www.moit.gov.cy</a> The Government of Cyprus contributes 50% of the Budget of the Cyprus Rural Network and the E.U. contributes the other 50%. <a href="https://www.moa.gov.cy/da">www.moa.gov.cy/da</a> , <a href="https://www.ead.com.cy">www.moa.gov.cy/da</a> , <a href="https://www.ead.com.cy">www.moa.gov.cy/da</a> , <a href="https://www.ead.com.cy">www.moa.gov.cy/da</a> , <a href="https://www.ead.com.cy">www.ead.com.cy</a>

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

If necessary, provide relevant information on your country situation regarding this specific objective (up to 1,500 characters with spaces).

Special emphasis is given to the production of adequate tools and materials from the Governmental Sector and the NGO's. Various informative and educational tools (ICT, books, and leaflets) have been produced referring to various issues in SD and environment. Also, a bank of tools and materials have been created on the web-sites of various organisations so as to provide access to the public, students and special groups to various issues. However, there is a need to produce a series of educational tools and materials according to the pedagogy and didactic methods of ESD.

Special emphasis is given by the Ministry of Education and Culture to create an adequate bank of educational tools and materials for various SD issues in order to support effectively the curriculum for EE/ESD. At the moment has been published a series of educational kits closely related with the thematic units of the ESD Curriculum. Specifically are mentioned the educational tools for

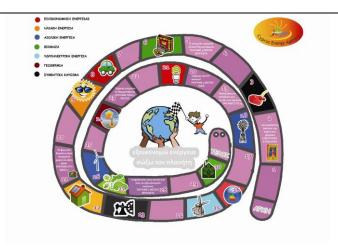
- Sustainable issues in Education
- Waste Management
- Consumption and production models
- Sustainable Tourism
- Transportation means
- Wetlands
- Grey-water
- Gardening

All those tools are available to the website http://www.moec.gov.cy/dkpe/chrisimo\_yliko.html

<sup>&</sup>lt;sup>25</sup> Including assistance through direct funding, in-kind help, political and institutional support.

	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?
Yes X No 🗌	There are different schemes for the encouragement of the production of ESD tools and materials in Cyprus from MANRE through the Department of Agriculture, the Forest Department, the Department of Environment etc. MANRE has developed and printed a great variety of leaflets and other material which interest not only farmers but also other groups of people.  www. moa.gov.cy  Cyprus Pedagogical Institute has established groups consisting of experienced teachers, inspectors, counsellors, scientists on ESD and they are
	employed on an annual base to produce educational material on SD issues that are priority for Cyprus and the Mediterranean Region and taking in consideration the particularities of Cyprus Educational System.
Sub-indicator 4.1.2	Is public (national, subnational, local) authority money invested in this activity?
	Phase III: Please specify to what extent public money is invested in this activity, by providing an indication of the amount (in USD) for annual expenditures on ESD-related research and development.
Yes X No 🗌	Each Governmental Department has its own budget for this activity. For Example:  The Department of Environment (MANRE) has invested €269,000 for 2010 under the subsidies and funding programmes for awareness and educational activities, and the development of such material  The Ministry of Education and Culture (Departments of Education and the Cyprus Pedagogical Institute) has invested almost 1 million euros for ED tools and materials which are distributed free to all the schools and there are also available on the official website of ESD/EE in Cyprus Ministry of Education and Culture. http://www.moec.gov.cy/dkpe/chrisimo_yliko.html
	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?
(a) Yes X No (b) Yes No X (c) Yes X No X	Phase III: For (a) and (b), please describe.  Ministry of Education and Culture has a quality mechanism for approving the teaching tools that are produced for ESD. This mechanism is consisted by the special pedagogical team that established in Cyprus Pedagogical Institute for writing the teaching tools for ESD Curriculum. This team is supported by experts in ESD from various Universities in Cyprus, and teachers in schools that applied pilot all the material that is prepared. The tools must accomplished the below tasks:  • Be in accordance with the thematic Units of ESD Curriculum  • Correspond to the learning outcomes of the ESD Curriculum in each thematic unit  • Developed in an interdisciplinary way  • Respond to the educational level of the students that are written for  • Combine formal and no-formal education  • Based on the teaching and learning methods of ESD  • Combine local, regional and national context  • Using a variety of resources and means.  For that reason a special qualitative tool has been prepared which is used as an evaluation tool from all the parties that involved to the preparation of the teaching tools and kits, in order the tools to complete and improved before their finalization.

	Phase III: Please specify for (a), (b) and (c) for formal, informal and non-formal education. For (c), please also describe. Please also provide your own examples, as appropriate.  AKTI NGO participates and implements projects funded by international organisations: EU funded projects (eg Leonardo Da Vinci) have their own demand for detailed quality control. Projects funded by international organisations (eg UNDP, or WWF) have built in the proposal quality control methods and indicators.  Cyprus Environmental Studies Centre (CESC): All lessons are based on the current relevant educational syllabuses, our courses are driven by the needs of our clients. These are the accepted guidelines for the various educational institutions.  The International Baccalaureate, Edexcel, AQA and Cyprus State school curriculums are followed to adhere to the requirements of the specific visiting group www.edexcel.com/quals/skills www.aqa.org.uk/subjects www.ibo.org/ibap www.moec.gov.cy
Sub-indicator 4.2.2	Are ESD teaching tools/materials available: (a) in national languages? (b) for all levels of education according to ISCED?
(a) Yes X No □	Phase III: For (a) please specify.  Yes a number of teaching tools and materials in the Greek language has been produced for all levels of education by various organisations. Those materials are of various forms and types and cover a variety of issues related to SD and the environment. These tools are: teaching books, DVDs, interactive and simulation games, books with pedagogical activities.  Examples:
(b) Yes X No	One of the activities prepared by the Cyprus Energy Agency is an attractive, large, educational board game (following the rules of the known 'snakes and ladders' game), designed on a metal table, called "the energy snake". The game, which was designed for elementary school students and integrates educational questions based on Renewable Energy and Energy saving techniques, is used with great success in primary schools.  www.cea.org.cy



The Cyprus Pedagogical Institute has developed a series of materials for ESD issues which are supporting the Curriculum of ESD. Those materials are in the national language and are the main materials for working with the SD issues in Schools, since are prepared from the Cyprus Ministry of Education and Culture. All the materials are available in printed and electronically form from Cyprus Pedagogical Institute and are uploaded to the official website of Cyprus Ministry of Education and Culture for ESD.

Specifically are mentioned the educational tools for

- Sustainable issues in Education
- Waste Management
- Consumption and production models
- Sustainable Tourism
- Transportation means
- Wetlands
- Grey-water
- Gardening

All those tools are available to the website http://www.moec.gov.cy/dkpe/chrisimo\_yliko.html

	Phase II: If yes for (b), please specify by ticking (V) in the table as appropriate.  ISCED levels  O  1  2
	3
	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?
Yes X No □	Each Ministry has its own mechanism for dissemination of ESD tools and materials. For Example:  a) Dissemination of ESD tools and material is done through the Publicity Service of Ministry of Agriculture Natural Resources and Environment (M.A.N.R.E) and through the District Agricultural Offices.  www. agrokypros.gov.cy or from <a href="https://www.moa.gov.cy/da">www.moa.gov.cy/da</a> b) The Cyprus Ministry Education and Culture, through the Departments of Education and in cooperation with the Cyprus Pedagogical Institute, disseminates the ESD tools and materials. All the materials are also accessible on line <a href="http://www.moec.gov.cy/dkpe/chrisimo_yliko.html">http://www.moec.gov.cy/dkpe/chrisimo_yliko.html</a>
Sub-indicator 4.3.2	Is public authority money invested in this activity?
Yes X No 🗌	. This activity is included in the total budget for promoting ESD in formal, non formal and informal education for Cyprus Ministry of Education and Culture.
Sub-indicator 4.3.3	Are approved ESD teaching materials available through the Internet?
Yes X No 🗌	See indicator 4.2.2.
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?
(a) Yes X No [] (b) Yes X No []	a) The Cyprus Pedagogical Institute creates, through its official web-site, a link for ESD where various teaching and educational materials are uploaded. <a href="http://www.moec.gov.cy/dkpe/chrisimo_yliko.html">http://www.moec.gov.cy/dkpe/chrisimo_yliko.html</a> Also, the Departments of Education in their web-sites have a corner for EE/ESD ( <a href="http://www.schools.ac.cy/klimakio/Themata/epistimi/perivallontikiagogi.html">http://www.schools.ac.cy/klimakio/Themata/epistimi/perivallontikiagogi.html</a> ).

	b) The Department of Agriculture: All teaching tools and material of ESD can be found at <a href="www.agrokypros.gov.cy">www.moa.gov.cy/da</a>
	c) The Ministry of Education and Culture disseminates also the teaching tools and materials through the three extended networks of teachers that have been set up for EE/ESD (See indicator 3.2.1.)
	d) The Cyprus Energy Agency has available on line all teaching materials in the national language. Information about the availability is given through electronic newsletters and regular mail. <a href="https://www.cea.org.cy">www.cea.org.cy</a>
	E. CARDET has available on line all teaching materials in the national language <a href="http://makethelink.eu/el/">http://makethelink.eu/el/</a>
	Issue 5. PROMOTE RESEARCH ON AND DEVELOPMENT OF ESD
If necessary, provide	relevant information on your country situation regarding this specific objective (up to 1,500 characters with spaces).
	Indicator 5.1 Research <sup>26</sup> on ESD is promoted
Sub-indicator 5.1.1	Is research that addresses content and methods for ESD <sup>27</sup> supported?
	Phase III: Please specify what kind of research (content and methods). Please provide the total amount annually over the reporting period, and if feasible, as a percentage of the total research budget.
Yes X No □	The Foundation for the Management of European (EU) Lifelong Learning Programmes (LLP) was founded on March 2007 and is being directed by a Board of Directors with nine members, which is appointed by the Council of Ministers. The main occupation of the LLP is the management of the funds that are granted in Cyprus from the European Commission for the attendance of the Cypriot Beneficiaries in European Education and Training Programmes as well as for the implementation of projects in all fields of Education (School Education, Higher Education, Vocational Education and Training, Adult Education) and the field of youth and Sport. The Foundation manages now the new European program for Education, Culture Youth and Sports, the Erasmus+, which was put into action on 1st of January 2014 and provides support for activities of all sectors of Lifelong Learning. The FMELLP supports cooperation through the European Funding programmes that it manages. Many of the projects granted through the LLP funds include an explicit ESD component since one of the policies supported through the projects funded, refers to the Education for the Sustainable Development. During 2010-2014 the FMELLP granted several projects that include an explicit ESD component:
	Under the programme <b>LEONARDO DA VINCI – Mobility</b> the following projects dealt with the sustainable development:
	• Strovolos Municipality – "Training the personnel in introducing new technologies so as to improve the qualitative service of the citizens"
	<ul> <li>Forestry Department – "Training in management of forest resources and forest pedagogy"</li> </ul>

These include support from various sources, such as State, local authorities, business and non-governmental sources.
 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 socioeconomic impacts.

- Theodosiou (Vikla) Sunset Ltd "Developing efficient HACCP techniques in the Hotel and Catering Industry"
- Strovolos Municipality "Training personnel for in purpose of upgrading the functions of the library"
- R.C.I. Research and Consultancy Institute Ltd "Training Farmers in Organic Agriculture"
- R.C.I. Research and Consultancy Institute Ltd "Sustainable Development Now!: Understanding society's motives towards a sustainable future and how to materialize it today"
- Doumag Ltd "Energy & Environmental Design of Buildings"
- Up to Date Training Ltd "Sustainable solid Waste Management Recycling of Waste Materials"
- Kanika Hotels Public Company Ltd "The New Hotel: a European work experience in the field of the hotel management"
- JNM4U Development and constructions LTD "Alternative methods to concrete and brick construction of houses: steel and wood buildings"
- Doumag Ltd- "Planning and designing of urban spaces"
- Between the Lines. An office of urban architecture ltd "Earth Architecture Training in Spain 2012"
- Community Council of Kiperounta "Innovation and creativity in the development of local community"
- Panrural Association of Cyprus "Organic olive cultivation"
- Rivensco Consluting Ltd "Efficiency in solar energy systems"
- Doumag Ltd "Application of geographic information systems (GIS) in environmental management "
- Volunteer Community Council of Pitsilia "Innovative methods and practices in the field of Social Care in Europe"
- Volunteer Community Council of Athienou- "New horizons in the care of elderly people Reaching a European dimension"
- X-Panel Ltd "European work experience for better employability of young graduates"
- Regional Technical and Agricultural School of Famagusta / Augorou "Hydroponic cultivation and automation"
- Grantxpert Consulting Ltd "The development and enhancement of employability skills for young university graduates of Cyprus"

Under the programme **LEONARDO DA VINCI - PARTNERSHIPS** the following projects dealt with the sustainable development:

• M. Petinos Constructions & Developers Ltd

#### "NEAR ZERO ENERGY EFFICIENT BUILDINGS"

- Cyprus Institute for Rural and Regional Development
  - "Good Agricultural Practices for Development"
- KINOTIKO SIMVOULIO P.PLATRON (Conseil d'administration de Platres) "SUSTAINABLE M-TOURISM: former les professionnels du tourisme à la valorisation de lidentité locale via le m-learning"
- Larnaca Technical School "FASHION WITH TRADITIONAL ASPECTS"
- PLATO Educational Services Ltd "Integrating the green alternative into VET training for the service sector" https://integreen.wordpress.com/
- STATE GENERAL LABORATORY "Water quality and management in the agro-food industries" http://www.hydro-culture.eu/
- TECHNICAL TRAINING VOCATIONAL TRAINING CENTRE OF LARNAKA LTD Bio energy - <a href="https://sites.google.com/site/bioenergyprojet/">https://sites.google.com/site/bioenergyprojet/</a>

Under the programme **LEONARDO DA VINCI - TRANSFER OF INNOVATION** the following projects dealt with the sustainable development:

- Organization: Frederick Research Center "Urban Greening Systems for the Mediterranean Region" http://www.ugreens.eu
- Organization: Agricultural Research Institute "Improving skills for Smart farming as an innovative tool for rural development and economic growth"

http://www.smartfarmerproject.eu/

• CYPRUS UNIVERSITY OF TECHNOLOGY - "Ecotourism: New Knowledge by Innovation, New Jobs by Knowledge Transfer" - <a href="http://ecotour4jobs.org/project">http://ecotour4jobs.org/project</a>

Under the programme **COMENIUS PARTNERSHIP** the following projects dealt with the sustainable development:

- A' Dimotiko Sxolio Pera Choriou Nisou "ToGether foR a bEtter EnvironmeNt" http://comenius-green.eu/
- C Makedonitissa's Elementary School Stylianos Lenas "respect@environment.eu"
- Laniteion Gymnasium Limassol Cyprus "A PATH TO SUSTAINABILITY"
- Pancyprian Lyceum Larnaca "Touring Europe expériences interculturelles et plurilinguistiques "
- Ethnomartyras Kyprianos Lyceum Strovolos "Energy Society Environment"
- Agios Stylianos Primary School "Our Green World" https://sites.google.com/site/ourgreenworld1/
- A' Primary School Makedonitissas "Growing Enthusiasm Together for Science and Environment Teaching"
- A Demotiko Sxoleio Aradippou "Go green, go clean, act now!" http://2clean2green.wordpress.com/
- DIMOTIKO SCHOLEIO PEFKIOS GEORGIADIS "Environment and culture in cities"
- DIMOTIKO SCHOLEIO POTAMOU GERMASOGEIAS 1 "Teaching Environmental Sustainability through Storyline "
- DIMOTIKO SCHOLEIO LEMESOU 9 (KA) KAPSALOU "Knowing me knowing you Making friends and sustaining nature" http://knowingmeknowingyou.skolbloggen.se/
- PAGKYPRION GYMNASION "Be Alert, Protect Nature!"
- DIMOTIKO SCHOLEIO POLEMIDION KATO 1 "LISTENING TO NATURE'S CALL"
- DIMOTIKO SCHOLEIO KAPEDON

"Our climate - its effects on our daily lives and our responsibility in succeeding sustainable development" http://www.comeniusclimate.blogspot.com/

- DIMOTIKO SCHOLEIO ARADIPPOU 2 "Rainbow tree"
- DIMOTIKO SCHOLEIO AGROU "It's fun to be IN and GREEN!! "
- DIMOTIKO SCHOLEIO LEMESOU 24 APOSTOLOU VARNAVA "TODAY'S SEEDS ARE TOMORROW'S FORESTS" http://seedsforforests.ro/
- LYKEIO ETHNOMARTYRA KYPRIANOU STROVOLOU "Alternative energy sources"
- GYMNASIO DROSIAS "Water Management and Values for European Students" http://waves-comenius.wix.com/waves-comenius
- GYMNASIO APOSTOLOU PAVLOU "Green European Eco Project" http://geepproject.wix.com/geepproject
- GYMNASIO APOSTOLOS ANDREAS EMPAS "Ways to a Greener and Healthier Europe"
- GYMNASIO STAVROU "WET Water Europe's Treasure"
- DIMOTIKO SCHOLEIO LAKATAMEIAS 7 AGIOU PANTELEÏMONA "Europe and Arts, Respect, Trees and Harmony" -

	https://sites.google.com/site/earthcomenius/
	• GYMNASIO AGIAS PARASKEVIS GEROSKIPOU - "Let Us Save The Endangered Species" - http://www.lustes.net/
	• DHMOSIO NHPIAGWGEIO FARMAKA 10000 - "Art for learning, art for peace art for nature, art for life"
	• GYMNASIO AGIOU VASILIOU 20000 - "Tourist TIC" - http://www.tourist-tic.eu/
	Transit Adioo Vasibloo 20000 - Tourist_ITC - Intp://www.tourist-uc.cu/
	Under the programme <b>GRUNDVIG – PARTNERSHIPS</b> the following projects dealt with the sustainable development:
	• Τ.Τ. Κέντρο Εκπαίδευσης και Κατάρτισης Λάρνακας Λτδ
	"Education à la consommation responsable »: Sensibilisation aux circuits courts de distribution des produits bio et produits locaux de qualité"
	http://www.soreco.eu/en/
	• ELEKTRA CULTURAL CENTER - "Adult and Elderly Sustainable Development Education Alliance" - <a href="http://www.asea-project.com/">http://www.asea-project.com/</a>
	<ul> <li>Organization for Promotion of European Issues - "European Network of Women from Rural Areas"</li> </ul>
	• Cyprus Neuroscience & Technology Institute - "Qualification of 3rd Sector in Europe" - <a href="http://www.q3-eu.info/">http://www.q3-eu.info/</a>
	<ul> <li>Podilatokinisi Cyprus Cycling Association - "Volunteers of Cycling Academy"</li> </ul>
	http://176.9.76.16/Radlobby/wiki/VOCA/doku.php
	YOUTH COUNCIL OF AGIOS ATHANASIOS MUNICIPALITY - "We Share"
	http://www.weshareproject.eu/
	<ul> <li>DOUMAG LTD - «Εναλλακτικά Συστήματα Διάθεσης Αγροτικών Προϊόντων»</li> </ul>
	http://www.altafoodss.org/
	• Chrysanthou & Parouxis Consultants Ltd - "Practical Outdoor Education Techniques"
	Chi ysanulou & Falouxis Consultants Eta - Tractical Outdoor Education Techniques
Sub-indicator 5.1.2	Does any research evaluate the outcome of the implementation of the UNECE Strategy for ESD?
	A unified official assessment of UNECE Strategy of ESD hasn't been established yet, however, informal inside evaluation is implemented for many
Yes ☐ No X\	initiatives undertaken within the Cyprus Educational System. In the near future a whole evaluation for ESD in Cyprus educational system will take
	place.
Sub-indicator 5.1.3	Are post-graduate programmes available: (1) on ESD: <sup>28</sup> (a) for the master's level? (b) for the doctorate level?
Sub-marcator 3.1.3	(2) addressing ESD: (a) for the master's level? (b) for the doctorate level?
	Phase II: Please specify what kind of programmes are available for (1) (a) and (b); (2) (a) and (b).
(1)	a) The Frederick University: (a) On ESD at the master's level: MSc in ESD, and ICT for ESD
(a) Yes X No	(b) On ESD at the doctorate level: Doctoral Program in Environmental Education
(b) Yes No X	http://www.frederick.ac.cy/programs-of-study/postgraduate
(2)	(1) (a) Addressing ESD: MA in Educational Sciences: Dynamic Learning Environments
(a) Yes X No $\square$	http://www.frederick.ac.cy/ma-in-educational-studies-program-structure/ma-in-educational-studies-courses#426
(b) Yes No	
	b) The University of Cyprus: Cources addressing ESD are available through the "Learning in 'Science" Master and Ph.D programme of
	the School of Education, through which students have the possibility to undertake a Master or a Ph.D thesis on the ESD research area.

<sup>&</sup>lt;sup>28</sup> ESD is addressed by substance and/or by approach.

	C) Open University of Cyprus: (1) (a) On ESD at the master's level  The Open University of Cyprus is offering postgraduate programme in 'Environmental Conservation and Management' since the 2011-2012 academic year. The Programme is offered at both Masters and PhD levels. The enrollment at the Master level for the 2014-2015 academic year is 217 students.  (1) b) On ESD at the PhD level  OUC offers a limited number of PhD positions every year on the programme 'Environmental Conservation and Management' on research related to Biodiversity Conservation and the Ecology of Terrestrial Ecosystems. Qualified applicants with a research interest in the following topics may apply:  1. Assessing the adaptive capacity of priority habitats to climate change 2. Identifying means to strengthen the coherence of protected areas 3. Evaluating the influence of landscape structure on biodiversity 4. Ecosystem Services Management in multifunctional Mediterranean landscapes 5. Island-scapes: The concept of insularity in Human and Environmental Sciences  D) University of Nicosia: MBA with consideration on Energy Oil and Gas management, and PHD on Energy Oil and Gas management.
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?
(a) Yes No X No Y No Y No X	No. At the moment the only scholarships supported for post-graduate research in ESD for the master is offered by the Private Frederick University. Master's students (MSc in Education for the Environment and Sustainable Development), that obtain high grades during their studies (GDP>8), are allowed up to 25 % (depending on their achievement) discount on their tuition fees.
	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? <sup>29</sup>
Yes X No □	The Network of Environmental Education Centres' of the Cyprus Pedagogical Institute (Ministry of Education and Culture) established in 2004 and is funded by the national financial resources. At the moment 4 Centres are operating and till now more than 85.000 of students, 4.000 teachers, 2.000 professionals participate in the work done at their environmental education centres. An innovative aspect of this initiative is that various partners from governmental and the private sector, NGO's, local authorities and the local population have come together and, in cooperation with the Cyprus Pedagogical Institute, organise and provide specific environmental education programmes (informal and non-formal), taking in consideration the particularities of the local communities and the environmental fields found in the surrounding areas of each centre.  Frederick University: Frederick University hosts the Nature Conservation Unit which offers multiple opportunities for research and students' engagement in it.  www.ncu.org.cy  The Nature Conservation Unit (NCU) was established under the Frederick University and it specialises on biodiversity conservation, environmental education and natural resources management in Cyprus. More specifically, the Unit focuses on the study, monitoring, management and
	conservation of the flora, fauna and habitats of Cyprus and the conservation and management of ecologically important areas of the island. Moreover, it aims at the promotion of awareness among the people of Cyprus about major environmental issues.

 $<sup>^{29}</sup>$  Activities may include pilot projects, action research, social learning and multi-stakeholder teams.

NCU was the first department in the Cypriot academic system that started dealing with issues relating to nature conservation. The members and collaborating scientists of the NCU have extensive experience on conservation biology and natural resources management. They were actively involved in several biodiversity conservation projects, including the LIFE Projects for the inventory, identification, evaluation and mapping of the habitat types and flora and fauna species in Greece and Cyprus. In addition, they have participated in several research projects on the conservation of the endemic, rare and threatened plants and animals of Cyprus and Greece. During the last few years the NCU has secured several research projects funded by the Research Promotion Foundation of Cyprus, the European Commission, the United Nations and the Government of Cyprus. Through these projects, the Unit has acquired modern research infrastructure, both for laboratory work and fieldwork. Through its activities the Nature Conservation Unit of Frederick University has excelled in the field nature conservation research. Award to Nature Conservation Unit: Acknowledging the work and contribution of the Nature Conservation Unit, the Cyprus Green Party decided to include NCU to the organisations awarded in the framework of its annual event titled "Pancyprian Environmental Awards". Indicator 5.3 Dissemination of research results on ESD is promoted Is there any public authority support for mechanisms<sup>30</sup> to share the results of research and examples of good practices in ESD<sup>31</sup> among authorities and Sub-indicator 5.3.1 stakeholders? Research outcomes and findings of ESD related projects conducted by Institutions and Research Centers that focus on Environment and ESD. The Frederick University has established the Nature Conservation Unit and Research. The outcomes and findings are disseminated through the webpage of the Research Centre, as well as through conferences organised by the University. (e.g. 3E conference) (http://www.ncu.org.cy/3E web/undp-Yes X No act.html). Moreover, almost all research projects in which the University participates include dissemination activities that are funded by the projects budget allocated for the project. Are there any scientific publications: (a) specifically on ESD? (b) addressing ESD? Sub-indicator 5.3.2 Phase III: For (b), if feasible, please provide the number on annual basis over the reporting period. Please list the major ones. a) The bulletin of Cyprus Pedagogical Institute, which is published every year, includes papers on various aspects of ESD. http://www.pi.ac.cy/pi/index.php?option=com content&view=article&id=65&Itemid=114&lang=el (a) Yes X No X Examples are provided: (b) Yes X No Frederick University: Book (end product of research program) Kadii-Beltran C. & Zachariou A (Eds) (2013). Education for Sustainable Development as an educational framework for primary and pre-primary education. Teachers' guide. [Η Εκπαίδευση για το Περιβάλλον και την Αειφόρο Ανάπτυζη ως Παιδαγωγικό Πλαίσιο στη Δημοτική και Προδημοτική Εκπαίδευση. Εγχειρίδιο για Εκπαιδευτικούς]. Frederick Research Center. Nicosia Cyprus. **Book chapters** 

<sup>&</sup>lt;sup>30</sup> E.g. conferences, summer schools, journals, periodicals, networks.

<sup>31</sup> E.g. the "participatory approach"; links to local, regional and global problems; an integrative approach to environmental, economic and social issues; an orientation to understanding, preventing and solving problems.

- Zachariou, A. & **Kadji-Beltran C.** (2014). Paving Education for Sustainable Development in Cyprus: Achievements, Findings and Challenges, In Jucker, R. & Mathar R. (Eds.), *Schooling for Sustainable Development: A Focus on Europe*. Springer.
- Kadis C., Zachariou A., **Kadji** C. and Mazaraki S. (2013) <u>Public Use of Plant Micro-Reserves: Public Awareness, Social Involvement and Environmental Education.</u> In Kadis C., Thanos C., Laguna Lumbreras E (Eds), Plant Micro Reserves: From Theory to Practice. Experiences gained from EU LIFE and other related projects. Plant-Net Cy, Life, Natura 2000, Utopia.

#### Articles

- Kadji-Beltran C., Zachariou A., Liarakou G., Flogaiti E. (2013). Empowering Education for Sustainable Development in Schools through Mentoring. *Professional Development in Education*. Taylor and Francis, UK. (DOI:10.1080/19415257.2013.835276)
- Kadji-Beltran C., Zachariou A., Stevenson B., (2013). <u>Leading Sustainable Schools: Exploring the Role of Primary School Principals</u>. *Environmental Education Research* 19 (3), pp 303-323
- Zachariou A. **Kadji-Beltran C.,** Manolis K., (2013). <u>School Principals' Professional Development in the framework of Sustainable Schools: A matter of refocusing.</u> Professional Development in Education, Taylor and Francis, UK. 39 (5), pp 712-731. (**DOI:** 10.1080/19415257.2012.736085)

University of Cyprus: A sample of publications can be found at ucy.ac.cy/teamEE

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

If necessary, provide relevant information on your country situation regarding this specific objective (up to 1,500 characters with spaces).

	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 <sup>32</sup> networks on ESD?
Yes X No 🗌	The Frederick University is partner for the establishment of an e-learning platform on ESD, offering a Master's programme: "ICT-enabled in Education for Sustainable Development" along with other universities in Europe (Programme Coordinator is the University of Crete, Greece). The project receives European funding (Lifelong Learning Programme).
Sub-indicator 6.1.2	Do educational institutions/organisations (formal and non-formal) in your country participate in international networks related to ESD?
Yes X No 🗌	CYMEPA is a member of the FEE organisation and participates in the network of European Countries for Eco-Schools, Learning about forest, young Reporters for the Environment, Green-key, blue-flag ( <a href="www.cymepa.org.cy">www.cymepa.org.cy</a> and <a href="www.fee-international.org">www.fee-international.org</a> ).  The Ministry of Education and Culture (Cyprus Pedagogical Institute) participates in the MIO-Medies network as well as to the Codes network "School and Community Collaboration for ESD". The Codes networks consisted of 28 organizations, institutions and universities that working in the field of ESD. Towards this network a series of tools regarding ESD school and community collaboration published as well as an extensive network of partners created in order to promote ESD more concretely and long-term in schools and other educational institutions. The CPI participation in MIO-Medies network giving the opportunity to Cyprus generally to participate in various actions and activities as well as programs that taken place for

<sup>&</sup>lt;sup>32</sup> In this context, international associations, working groups, programmes, partnerships, etc. means those at the global, regional and subregional levels.

	ESD in Mediterranean region. In the framework of MIOMEDIES implemented in Cyprus the project "Non-conventional water resources" giving the opportunity to all the schools in Cyprus, through seminars and educational tool that produced to understand the importance of saving water. Also, towards this project more than 15 schools in Cyprus benefited with the installation of infrastructures of grey and recycling water. Additionally, it is noted that CPI is participated in the international network ENSI which is an international organization for promoting ESD in Europe.  Frederick University:  CODES network, (http://www.comenius-codes.eu/)  CLIMASP network (http://www.ncu.org.cy/climasp.html
	the University Educators for Sustainable Development Network (UE4SD)  The University of Cyprus is currently participating in the University Educators for Sustainable Development Network (UE4SD)  It is also a member of the Network of the Mediterranean Universities for sustainable Development focusing on ESD
Sub-indicator 6.1.3	Are there any state, bilateral and/or multilateral cooperation mechanisms/agreements that include an explicit ESD component?
Yes X No	There is a specific Action for "Bilateral Cooperation" promoting cooperation with organisations in specific countries (e.g. Greece, Romania, Slovenia) for which Bilateral Agreements or Protocols for Cooperation on Research and Development between the two governments have been made. The RPF will cover part of the costs for implementing the proposed project and the networking carried out by the Cyprus organisation, while the partner organizations from abroad are funded by the competent organization of their country. Furthermore, there is another Programme for "International Cooperation" which is addressed to research teams from Cyprus and the country of cooperation already conducting research in the same or similar scientific field and wish to develop cooperation and networking between them. The project proposal will be submitted to RPF only by the Cyprus organization.  Apart from the Programmes mentioned above, consortia in all other research projects may include organisations (Research Organisations / Public Benefit Organisations - Governmental Organisations or enterprises) from any country.  Cyprus Ministry of Education and Culture has signed bilateral agreements amongst Greece and Austria. Cyprus-Greece agreement include the exchange of students and teachers through the Environmental Education Centres Network. The bilateral agreement between Cyprus and Austria(Federal Ministry of Arts and Education) is based exclusively to ESD. Specifically the agreement includes:  Exchange of information regarding ESD amongst the two countries  Exchange of experts  Conducting joint seminars for ESD in the two countries  Transition of ESD educational tools for ESD in the two countries  Exchange good practices and examples for ESD  This bilateral cooperation is in evolution and at the moment conducted two visits experts in ESD, for getting now in political and practical level how ESD is implemented in the two Countries. In 2015 is organized a visit in Cyprus from Austrian stakeholders and leaders for the establishment of netwo
Sub-indicator 6.1.4	Does your Government take any steps to promote ESD in international forums outside the UNECE region?
Yes X No 🗌	The Cyprus government is promoting ESD through the international and regional network that is participating (see indicator 6.1.2 and 6.1.3.). Also it is mentioned that Cyprus will participate to the Worldwide ESD UNESCO Conference that will take place in NAkoya, November 2015. Cyprus will participated with an official delegation and the Cyprus Minister of Education and Culture and will participate, parallel with the other sessions to the

side event that will organized with UNECE and MIO titled "Driving ESD through regional policy frameworks".

# Issue 7. FOSTER CONSERVATION, USE AND PROMOTION OF KNOWLEDGE OF INDIGENOUS PEOPLES, AS WELL AS LOCAL AND TRADITIONAL KNOWLEDGE, IN ESD

Provide relevant information on your country situation regarding this specific issue (up to 2,000 characters with spaces). Please be as specific as possible.

The use of and promotion of the knowledge concerned with the culture of locally found populations in the Education for Sustainable Development (ESD), which was of vital importance to Cyprus, has become the core objective in the context of education with the foundation of the NSA and the preparation of the National Strategic Plan for ESD. To this end all government and non-governmental agencies as well as universities and various research centres have turned their attention. The Cyprus Government, recognising the importance for identifying and utilising/involving these communities in issues concerned with the ESD as well as the importance to raise awareness amongst these populations for the protection and rationalised use of their indigenous skills, has indicated various actions to be taken so as to make these populations an intrinsic part of the EDS, acting within the framework of the policy for sustainability.

An indicative example is the establishment of the Network of Environmental Education Centres, created by the Cyprus Ministry of Education and Culture (the Cyprus Pedagogical Institute) in close cooperation with the local communities. Apart from the fact that local communities had a basic role to the renovation of the buildings and the infrastructure, the most important fact is that the local population is the core for implementing the Environmental Education Programmes at each centre. All the programmes are designed and implemented in local communities. Also, the participants in the programmes interact with the local population in many ways: they discuss with them, collect data on the specific SD issues that are investigating, work in local trades with locals in order to experience their traditions, culture and way of life. (http://www.pi.ac.cy/pi/index.php?option=com\_content&view=article&id=200&Itemid=159&lang=el)

Our students usually visit the CESC for a fixed short term period once, it is therefore very difficult to assess changes in attitude in them as individuals in any objective manner. The best indication we receive is the repeat visits of the schools over many years. This would indicate that the educational body is happy with CESC's formal, informal and non-formal education of its students

We actively involve the local community whenever possible utilising their local knowledge and skills to help with many educational programmes.

E.G. One activity is interviews of the local residents to gain a greater knowledge of how the village sustainably utilised the surrounding environment in times and how attitudes have changed.

Phase II: Please provide the updated information to indicate changes over time.

Phase II was the initial stage of involving the local populations to various actions for ESD. It operates as a preparatory stage for setting the axes of how local populations can be involved and how, in ESD promotion.

Phase III: Please provide the updated information to indicate changes over time.

Phase III considered as the phase of implementation where various actions through Governmental sector, Universities and NGOs are promoted (see 2 examples above).

Another example is the project "seas of Culture" the implemented in the framework in bilateral cooperation amongst Cyprus and Crete. The Project was funded by EE with the amount of 550.000 euros with the aim of developing the ESD towards the local populations and other professional groups. Towards various actions that developed in the Community of Pedoulas and Margarites in Crete the civil society had the opportunity to realize and understand the important of our cultural and natural Heritage and understand our personal responsibility for its protection, as a part of improving our quality of life

#### Issue 8. DESCRIBE ANY CHALLENGES AND OBSTACLES ENCOUNTERED IN THE IMPLEMENTATION OF THE STRATEGY

Provide relevant information on your country situation regarding this specific issue (up to 1,500 characters with spaces). Please be as specific as possible.

Taking in consideration that ESD in Cyprus is at the stage of implementation, the challenges that arise are closely related with the implementation of the central actions that were included in the national action plan for ESD. Even though a lot of progress has been achieved, with structures that were created, infusion of ESD to formal, in-formal ad non-formal education etc, it is noted that it is essential to secure long-term sustainability of the Strategy in national context after the end of phase III. Also, the financial constraints constitute an important obstacle as there is absence of a National Commission for ESD. The coordination amongst the various bodies and the complexity of ESD are also some other challenges that Cyprus has to confront.

The role of HE, key competences for various stakeholders and a mechanism to secure the viability of ESD are some challenging issues.

It is, also, imperative that all concerned stakeholders be made aware of the importance of their involvement in the implementation of ESD although it is noted that significant progress has been made in the so far work done at a national level.

Phase II: Please provide the updated information to indicate changes over time.

Phase III: Please provide the updated information to indicate changes over time.

The challenges concern the educational system of Cyprus and its ability to provide substantial status and context to ESD in a way that would encourage schools and all the other institutions to integrate the principles, values and practices of SD into all aspects of education and learning aiming to impact on the way people think. In order to meet this challenge, we should also consider how the policy documents are make sure that they are perceived as dynamic sources of educational policy as well as means for transforming schools into communities of learning for ESD and sustainability examples for society.

Another important challenge in ESD implementation is the INSET/professional development of teachers and school leaders. Despite the progress observed, teacher education still needs to be oriented towards a system-wide change and include multiple forms of education, which would provide the competencies needed for leading and implementing sustainable schools. Initial teacher education should also be empowered and connected to the educators' professional development in ESD.

The end of the DESD (2005–2014) marks the beginning of a new cycle of ESD review, on a national, peripheral and global level. In the case of Cyprus, this requires the establishment of an ESD permanent body which will be responsible for the implementation of the ESD strategy as well as for ensuring its long term viability by means of reviewing and control mechanisms. Finally, the search of funding sources nationally and at the European level and the development of multi-level collaborations (national, peripheral, international level) for the implementation of common policies and actions on areas of common interest, constitute focal axes which the state can use in order to meet the challenges that emerge from ESD.

Finally it is important ESD to connect with the worldwide economic crises and used as a tool that can give new opportunities and hopes to the people and nations. Linking ESD with the employment, the green jobs is very important. The role of VET must be reinforced to this field. Also, it is very important to give to ESD a practical and tangible character in order people to realize that can benefited from this. ESD is not something theoretical but is very practical and this must be framed in a better way.

#### Issue 9. DESCRIBE ANY ASSISTANCE NEEDED TO IMPROVE IMPLEMENTATION

Provide relevant information on your country situation regarding this specific issue (up to 1,500 characters with spaces). Please be as specific as possible.

ESD implementation is an issue that needs the synergy in national, regional and international level. It is important to strengthen the networks, sustain the meetings, update and inform through the conferences on specific axes of ESD, as well as strengthen the mechanism for exchanging ideas and practices on how ESD is implemented in other countries in its various aspects.

Phase II: Please provide the updated information to indicate changes over time.

Phase III: Please provide the updated information to indicate changes over time.

Even though an important progress was made in the field of ESD it is still very important its; establishment in political level. Legislative mechanisms that will support the monitoring of ESD are important. Also, the funding needed and nowadays with the economic crises this is the biggest challenge that we faced.

## Indicator 2.1, sub-indicator 2.1.1

Please specify which key themes of SD are addressed explicitly in the curriculum/programme of study at various levels of formal education by filling in the table below. (Please tick (V) relevant themes for each level. Use the blank rows to insert additional themes that are considered to be key themes in addressing learning for SD.)

Come has the second by sectable development		ISCED Levels						
Some key themes covered by sustainable development	0	1	2	3	4	5		
Peace studies (e.g. international relations, security and conflict resolution, partnerships)	✓	✓	✓	✓		✓		
Ethics and philosophy	✓	✓	✓	✓		✓		
Citizenship, democracy and governance	✓	✓	✓	✓		✓		
Human rights (e.g. gender and racial and inter-generational equity)	✓	✓	✓	✓		✓		
Poverty alleviation	✓	✓	✓	✓		✓		
Cultural diversity	✓	✓	✓	✓		✓		
Biological and landscape diversity	✓	✓	✓	✓		✓		
Environmental protection (waste management, etc.)	✓	✓	✓	✓		✓		
Ecological principles/ecosystem approach	✓	✓	✓	✓		✓		
Natural resource management (e.g. water, soil, mineral, fossil fuels)	✓	✓	✓	✓		✓		
Climate change	✓	✓	✓	✓		✓		
Personal and family health (e.g. HIV/AIDS, drug abuse)	✓	✓	✓	✓		✓		
Environmental health (e.g. food and drinking; water quality; pollution)	✓	✓	✓	✓		✓		
Corporate social responsibility	✓	✓	✓	✓		✓		
Production and/or consumption patterns	✓	✓	✓	✓		✓		
Economics			1			✓		
Rural/urban development		✓	✓	✓		✓		
Total	<mark>12</mark>	<mark>15</mark>	<mark>15</mark>	15		16		
Other (countries to add as many as needed)								
Tourism		✓	✓	✓				
Transportation		✓	✓	✓				

NB: Your response will reflect the variety of ESD themes distributed across the ISCED levels. The distribution is more important than the raw number of ticks. The number of ticks may be used for your own monitoring purposes.

The scoring key for this table (max. 102 ticks; "other" not counted) is:

No. of ticks	0–5	6–10	11–25	26–50	51–75	76–100
Scale	A	В	C	D	Е	F

## Appendix I (b)

## **Indicator 2.1, sub-indicator 2.1.2**

Please specify the extent to which the following broad areas of competence that support ESD are addressed explicitly in the curriculum<sup>33</sup>/programme of study at various levels of formal education, by filling in the table below.

(Please tick (V) relevant expected learning outcomes for each level. Use the blank rows to insert additional learning outcomes (skills, attitudes and values) that are considered to be key outcomes in your country in learning for SD.)

## **Table of learning outcomes**

Competence		ISC	ED :	Lev	els		
_	Expected outcomes	0	1	2	3	4	5
	- posing analytical questions/critical thinking?	✓	✓	✓	✓		✓
	A) understanding complexity/systemic thinking?		✓	✓	✓		✓
I coming to loom	B) overcoming obstacles/problem-solving?		✓	✓	✓		✓
Learning to learn  Does education at each level enhance	- managing change/problem-setting?		✓	✓	✓		<u> </u>
learners' capacity for:	- creative thinking/future-oriented thinking?	✓	✓	✓	✓		✓
icarners capacity for.	- understanding interrelationships across disciplines/holistic approach?			✓	✓		✓
	Total	2	5	6	6		5
	- other (countries to add as many as needed)?						
	-						
	Expected outcomes	0	1	2	3	4	
	- applying learning in a variety of life-wide contexts?	✓	✓	✓	✓		✓
	- decision-making, including in situations of uncertainty?	✓	✓	✓	✓		✓
	- dealing with crises and risks?			✓	✓	ļ	
1	- acting responsibly?	✓	✓	✓	✓	ļ	✓
1	- acting with self-respect ?			_		ļ	- <u></u>
	- acting with determination?	3	3	4	4		3
	Total						11
	- other (countries to add as many as needed)?					ļ	<b> </b>
	-						
	Expected outcomes	0	1	2	3	4	
	- self-confidence?	✓	✓		✓	ļ	✓
Learning to be	- self-expression and communication?	✓	✓	✓	✓	ļļ	✓
Does education at each level enhance	- coping under stress?						<b>,</b> _
learners' capacity for:	- ability to identify and clarify values (for phase III)?			_	✓		✓
supucity for.	Total	2	2	3	3		3
	- other (countries to add as many as needed)?						<b> </b>
	-						

<sup>&</sup>lt;sup>33</sup> At the State level, where relevant.

-

	Expected outcomes	0	1	2	3	4	
	- acting with responsibility (locally and globally)?	✓	✓	✓	✓	,	<b>✓</b>
	- acting with respect for others?	✓	✓	✓	✓	,	✓
	- identifying stakeholders and their interests?		✓	✓	✓	,	✓
Learning to live and work together	- collaboration/team working?	✓	✓	✓	✓	,	✓
Does education at each level enhance	- participation in democratic decision-making?	✓	✓	✓	✓	,	✓
learners' capacity for:	- negotiation and consensus-building?	✓	✓	✓	✓	,	✓
	- distributing responsibilities (subsidiarity)?	✓	✓	✓	✓	,	✓
	Total	6	7	7	7	Ţ	7
	- other (countries to add as many as needed)?	13	1 6	1 7	1 9	1	18
	-						

NB: Your response will reflect the variety of ESD learning outcomes distributed across the ISCED levels. The distribution is more important than the raw number of ticks. The number of ticks may be used for your own monitoring purposes.

The scoring key for this table (max. 138 ticks; "other" not counted) is:

No. of ticks	0–7	8–14	15–35	36–70	71–104	105–138
Scale	Α	В	C	D	Е	F

## Appendix I (c)

## Indicator 2.1, sub-indicator 2.1.3

Please indicate the teaching/learning methods used for ESD at the different ISCED levels.

(Please tick (V) relevant teaching/learning methods for each level. Use the blank rows to insert additional teaching/learning methods that are considered to be key methods in your country in teaching-learning for sustainable development.)

## **Table of teaching-learning methods**

Come have ESD 400 abits all committee models also managed by the C4motocom34		IS	SCEL	) Leve	els	
Some key ESD teaching/learning methods proposed by the Strategy <sup>34</sup>	0	1	2	3	4	5
Discussions	✓	✓	✓	✓		✓
Conceptual and perceptual mapping		✓	✓	✓		✓
Philosophical inquiry		✓	✓	✓		✓
Value clarification		✓	✓	✓		✓
Simulations; role playing; games	✓	✓	✓	✓		✓
Scenarios; modeling	✓	✓	✓	✓		✓
Information and communication technology (ICT)		✓	✓	✓		✓
Surveys		✓	✓	✓		✓
Case studies		✓	✓	✓		✓
Excursions and outdoor learning	✓	✓	✓	✓		✓
Learner-driven projects		✓	✓	✓		✓
Good practice analyses		<u> </u>	✓	✓		✓
Workplace experience	✓	✓	✓	✓		✓
Problem-solving		✓	✓	✓		✓
Total	5	13	14	14		14
Other (countries to add as many as needed)						
		<u> </u>				

NB: Your response will reflect the variety of ESD teaching/learning methods distributed across the ISCED levels. The distribution is more important than the raw number of ticks. The number of ticks may be used for your own monitoring purposes.

The scoring key for this table (max. 84 ticks; "other" not counted) is:

No. of ticks	0–5	6–28	29–35	36–50	51–65	66–84
Scale	A	В	C	D	Е	F

<sup>34</sup> Please refer to paragraph 33 (e) of the UNECE Strategy for ESD.

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#### Appendix II

#### Indicator 2.6, sub-indicator 2.6.1

Please specify to what extent is ESD implementation a multi-stakeholder process by filling in the table below. Please provide examples of good practice. (Please tick (V) in both (a) and (b) template-tables to indicate what types of education stakeholders are involved.)

Table (a) According to the UNECE Strategy for ESD

Stakeholders	Classification	Classification by UNECE Strategy for ESD						
Starcholders	Formal	Non-formal	Informal					
NGOs	✓	✓	✓					
Local government	✓		✓					
Organized labour								
Private sector	✓	✓						
Community-based	✓	✓	✓					
Faith-based								
Media	✓							
Total								
Other (countries to add as many as needed)								

The scoring key for this table (max. 21 ticks; "other" not counted) is:

N	No. of ticks	0–1	2	3–5	6–10	11–15	16–21
	Scale	A	В	C	D	E	F

#### **Good Practices:**

a) "Designing Action Community Programmes through creating networks amongst school, parents and local community". The project was implemented for three years by the Pedagogical Institute: 37 Schools from pre-primary and primary education worked with various stakeholders from the Governmental and private sector as well as with NGOs, parents and local populations in order to intervene and solve environmental problematic issues in their school or in their community. The project has been included in the ESD good practices

(http://www.unece.org/env/esd/GoodPractices/Submissions/Countries/Cyprus/Pedagogical%20Institute%20of%20Cyprus%20Ministry %20of%20Education%20and%20Culture%20Priority%201/Pedagogical%20Institute%20of%20Cyprus e.pdf).

b) Another example from Cyprus, indicating that ESD implementation in a multi-stakeholder process is the work done at the network of the Environmental Education Centres of the Ministry of Education and Culture (the Cyprus Pedagogical Institute) where their philosophy, their programmes and the way they are operating, based on the cooperation of all the interested parties (Ministry of Education and Culture, other Governmental Departments as Department of Forestry, NGOs, local authorities, local populations, Universities etc), are exemplified. (http://www.pi.ac.cy/pi/index.php?option=com content&view=article&id=200&Itemid=159&lang=el).

Table (b) According to United Nations Decade of ESD

	Classification by United Nations Decade of ESD								
Stakeholders	Public awareness	Quality education	Reorienting education	Training	Social learning				

NGOs	<b>√</b>	<b>√</b>	✓	✓	<b>✓</b>
Local government	✓	✓	✓	✓	✓
Organized labour					
Private sector	✓	✓	✓		✓
Community-based	✓		✓		✓
Faith-based					
Media	✓				✓
Total					
Other (countries to add as many as needed)					

The scoring key for this table (max. 35 ticks; "other" not counted) is:

No. of ticks	0–5	6–11	12–17	18-23	24–29	30–35
Scale	A	В	C	D	Е	F

Please specify to what extent is ESD a part of the initial and/or in-service educator's training, by filling in the table below by ticking (V) as appropriate.

		Percentage of education professionals who have received training <sup>35</sup> to integrate ESD into their practice: (see key below)																
ISCED levels		Educators									Le	eader	s/adı	ninis	strate	ors <sup>36</sup>		
		Initial*						I	n ser	vice*	**		In service***					
	A	В	C	D	E	F	A	В	C	D	E	F	A	В	C	D	E	F
0	1					✓	1				✓						✓	
1						✓	1			ļ	✓						✓	
2	✓	1					1		ļ		✓						✓	
3	<b>√</b>	l	1	İ	ļ		1	l	l	İ	✓	<b> </b>		<b>†</b>	l		✓	<u> </u>
4		l	1	İ	ļ		1	l	l	İ		<b> </b>		<b>†</b>	l		<b> </b>	<u> </u>
5	-	l	1	†	ļ	T	1	l		†		<b> </b>		<b>†</b>	1		<b>†</b>	<u> </u>
6		l	1	ļ			1	İ	1	İ		T			Ī		1	<u> </u>
Non-formal		l	1	ļ	✓		1	İ	1	İ	✓	T			Ī		1	<u> </u>
Informal		l	1	ļ		T	İ	l	1	İ	✓	T		T	Ī		1	<u> </u>

The scoring key for this table (max. 100%) is:

Percentage of educated trainers	0–5	6–10	11–25	20-30	51–75	76–100
Scale	A	В	C	D	Е	F

\* Please indicate the number of educators who have received initial training on ESD as a percentage of the total number of educators by the reporting date.

\*\* Please indicate the number of educators who have received training on ESD as a percentage of the total number of educators who received in-service teacher training by the reporting date.

\*\*\* Please indicate the number of leaders/administrators who have received training on ESD as a percentage of total number of leaders/administrators who received in-service teacher training by the reporting date.

<sup>&</sup>lt;sup>35</sup> Training is understood to include at least one day (a minimum of five contact hours).

<sup>&</sup>lt;sup>36</sup> See paragraphs 54 and 55 of the UNECE Strategy for ESD.

# Appendix IV

## Summary and self-assessment<sup>37</sup> by countries:

1	Indicator 1.1	Prerequisite measures are taken to support the promotion of ESD	☐ Not started ☐ In progress ☐ Developing X Completed
2	Indicator 1.2	Policy, regulatory and operational frameworks support the promotion of ESD	☐ Not started ☐ In progress X Developing ☐ Completed
3	Indicator 1.3	National policies support synergies between processes related to SD and ESD	☐ Not started ☐ In progress X Developing ☐ Completed
4	Indicator 2.1	SD key themes are addressed in formal education	☐ Not started ☐ In progress ☐ Developing X Completed
5	Indicator 2.2	Strategies to implement ESD are clearly identified	☐ Not started ☐ In progress ☐ Developing X Completed
6	Indicator 2.3	A whole-institution approach to ESD/SD is promoted	☐ Not started X In progress ☐ Developing ☐ Completed
7	Indicator 2.4	ESD is addressed by quality assessment / enhancement systems	X Not started  In progress Developing Completed
8	Indicator 2.5	ESD methods and instruments for non-formal and informal learning are in place to assess changes in knowledge, attitude and practice	☐ Not started ☐ In progress X Developing ☐ Completed
9	Indicator 2.6	ESD implementation is a multi-stakeholder process	☐ Not started ☐ In progress X Developing ☐ Completed
10	Indicator 3.1	ESD is included in the training of educators	☐ Not started ☐ In progress X Developing ☐ Completed
11	Indicator 3.2	Opportunities exist for educators to cooperate on ESD	☐ Not started ☐ In progress X Developing ☐ Completed
12	Indicator 4.1	Teaching tools and materials for ESD are produced	☐ Not started ☐ In progress X Developing ☐ Completed
13	Indicator 4.2	Quality control mechanisms for teaching tools and materials for ESD exist	☐ Not started X In progress ☐ Developing ☐ Completed
14	Indicator 4.3	Teaching tools and materials for ESD are accessible	☐ Not started ☐ In progress X Developing ☐ Completed
15	Indicator 5.1	Research on ESD is promoted	☐ Not started ☐ In progress X Developing ☐ Completed
16	Indicator 5.2	Development of ESD is promoted	☐ Not started ☐ In progress X Developing ☐ Completed
17	Indicator 5.3	Dissemination of research results on ESD is promoted	☐ Not started X In progress ☐ Developing ☐ Completed
18	Indicator 6.1	International cooperation on ESD is strengthened within the UNECE region and beyond	☐ Not started X In progress ☐ Developing ☐ Completed

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<sup>&</sup>lt;sup>37</sup> On the basis of the answers to the sub-indicators, please self-assess the status of the implementation of the respective indicator in your country. If feasible, please specify the methodology used for the self-assessment.