

European SWOT Analysis on Education for Environmental Citizenship



Edited by
Andreas Ch. Hadjichambis, Pedro Reis & Demetra Paraskeva-Hadjichambi



Funded by the Horizon 2020 Framework Programme
of the European Union



European Network for
Environmental Citizenship
Cost Action CA16229



ENEC Cost Action Report

European SWOT Analysis on Education for Environmental Citizenship

Edited by

Andreas Ch. Hadjichambis^{1,2}, Pedro Reis³, Demetra
Paraskeva-Hadjichambi^{1,2}

1: Cyprus Centre for Environmental Research and Education, CYCERE,
Agiou Andreou 306, P.O. Box 56091, 3304 - Cyprus University of Tech-
nology, Lemesos, Cyprus, e-mail: a.chadjihambi@cytanet.com.cy

2: Cyprus Ministry of Education and Culture, Kimonos & Thoukididou,
1434, Nicosia, Cyprus, e-mail: demhad@ucy.ac.cy

3: Instituto de Educação – Universidade de Lisboa, Alameda da Univer-
sidade, Lisboa, Portugal, e-mail: preis@ie.ulisboa.pt

ISBN: 978-9963-9275-6-2

Reference

This book is referenced as below:

Hadjichambis, A. Ch., Reis, P. & Paraskeva-Hadjichambi D. (Eds.). (2019). *European SWOT Analysis on Education for Environmental Citizenship*. Lisbon: Intitute of Education – University of Lisbon, Cyprus Centre for Environmental Research and Education & European Network for Environmental Citizenship – ENEC Cost Action.

Address

Cost Association Address: Avenue Louise 149, 1050 Brussels, Belgium
Postal Address: Cyprus Centre for Environmental Research and Education
– CYCERE, Agiou Andreou 306, P.O. Box 56091, 3304, Lemesos, Cyprus.

This Report is free of charge.

Acknowledgements

This report is based on work from Cost Action ENEC – European Network for Environmental Citizenship (CA16229) supported by COST (European Cooperation in Science and Technology).

COST (European Cooperation in Science and Technology) is a pan-European Intergovernmental Framework. Its mission is to enable break-through scientific and technological developments leading to new concepts and products and thereby contribute to strengthening Europe's research and innovation capacities.



Funded by the Horizon 2020 Framework Programme
of the European Union



**European Network for
Environmental Citizenship**
Cost Action CA16229

Grant Holder Institution:



Table of Contents

	page
PART I: European Synthesis of SWOT Analysis	1
Chapter 1: European Synthesis of SWOT Analysis for Education for Environmental Citizenship Andreas Ch. Hadjichambis & Demetra Paraskeva-Hadjichambi	3
 PART II: European Countries' Reports	 23
Chapter 2: Short Country Report AUSTRIA Katharina Lapin & Florian Leregger	25
 Chapter 3: Country Report BOSNIA AND HERZEGOVINA Mirjana Zabic & Gekic Haris	 35
 Chapter 4: Education for Environmental Citizenship: An opportunity for Flanders BELGIUM? Results of the Flemish SWOT analysis for ENEC Jelle Boeve-de Pauw	 51
 Chapter 5: Short Country Report for BULGARIA on the SWOT Analysis of Education for Environmental Citizenship Boris Manov & Dilyana Keranova	 59
 Chapter 6: Education for Environmental Citizenship in CROATIA Slaven Gasparovic & Ivan Sulc	 73

Chapter 7: Education for Environmental Citizenship in CYPRUS: A SWOT Analysis Andreas Ch. Hadjichambis & Demetra Paraskeva-Hadjichambi	83
Chapter 8: ENEC Country Report: DENMARK Danielle Wilde, Bjørn Bedsted, Lucas Larsen & Susanne Dau	95
Chapter 9: SWOT Analysis of Education for Environmental Citizenship – Country Report: GREECE George Farangitakis & Themistoklis Sbarounis	111
Chapter 10: SWOT Analysis of Education for Environmental Citizenship – Short HUNGARIAN report Adrienne Csizmady, Imre Kovách & Boldizsár Megyesi	121
Chapter 11: SWOT Analysis of Education for Environmental Citizenship – Short ISRAELI Report Daphne Goldman	133
Chapter 12: ITALY: Short Country Report Daniela Conti & Luca Baglivo	145
Chapter 13: SWOT Analysis of Environmental Citizenship Education in LITHUANIA Mykolas S. Poskus, Audra Balunde & Lina Jovarauskaite	155

Chapter 14: SWOT Analysis of Education for Environmental Citizenship – Short LATVIA Report Maris Klavins	165
Chapter 15: SWOT Analysis of Education for Environmental Citizenship – Short Report for THE NETHERLANDS Frans van Dam & Marie-Christine Knippels	171
Chapter 16: Education for Environmental Citizenship in NORWAY Finn Arne Jørgensen, Lihong Huang & Eli Melby	181
Chapter 17: Education for Environmental Citizenship in PORTUGAL – A SWOT Analysis Pedro Reis	189
Chapter 18: SWOT Analysis of Education for Environmental Citizenship in ROMANIA Rareş Hălbac-Cotoară-Zamfir & Cristina Hălbac-Cotoară-Zamfir	201
Chapter 19: Short Country Report SERBIA Mirjana Lenhardt, Marija Smederevac-Lalić & Vesela Radović	207
Chapter 20: SWOT Analysis of Education for Environmental Citizenship – Short Country Report SLOVAKIA Vladislav Kaputa & Hubert Paluš	219

Chapter 21: SPANISH SWOT Analysis of Education for Environmental Citizenship Marta Romero Ariza	227
Chapter 22: SWOT Analysis of Education for Environmental Citizenship – Short SWEDISH Report Per Sund & Niklas Gericke	245
Chapter 23: Short Country Report Switzerland ENEC COST Action CA16229 Country Report SWITZERLAND Ralph Hansmann, Jérôme Duberry & Nicole Bauer	249
Chapter 24: Short Country Report UNITED KINGDOM Andri Christodoulou & Ralph Levinson	267

List of Main Abbreviations

CE: Citizenship Education
CoP: Community of Practise
DSP: Dominant Social Paradigm
EA: Environmental Attitudes
EB: Environmental Behaviour
EC: Environmental Citizenship
ECn: Environmental Citizen
EE: Environmental Education
EEC: Education for Environmental Citizenship
EfS: Education for Sustainability
ESD: Education for Sustainable Development
FCN: Frequency of Contact with Nature
NC: National Curriculum
NEP: New Environmental Paradigm Scale
PSAs: Public Service Announcements
SE: Science Education
SSIBL: Socio-Scientific Inquiry-Based Learning
STEM: Science Technology Engineering & Mathematics
TPB: Theory of Planned Behaviour
TPD: Teacher Professional Development
VBN: Values Beliefs Norms

Foreword

Environmental citizenship is crucial for the success of any environmental policy. Sustainable development, a circular economy, a low-carbon economy, and a bio-economy require an effective citizen engagement. Citizens are called upon to adopt environmental attitudes and behaviours, make green choices, increase civic participation, and to be aware of and apply their environmental rights and duties. The contemporary environmental crisis with climate change, biodiversity loss, air pollution and all other local and global environmental problems demand an education that is capable of empowering environmental citizens. Education plays a key role in shaping future environmental citizens; nobody is born environmental citizen but anybody can become so by education.

This report presents a SWOT Analysis of an integrated and holistic type of education in Europe “Education for Environmental Citizenship”. The SWOT analysis is presented in two levels. In Part A a synthesis of the results of 157 experts from 28 European countries are presented. In Part B the reader can explore the 23 European country reports.

It is important to clarify that this research regarding SWOT analysis was undertaken before any development on the concept of Education for Environmental Citizenship such as common definition and the pedagogical approach. In this fact it illustrates the experts’ opinion in the different contexts through out Europe.

We hope that European stakeholders will find it useful.

Dr Andreas Ch. Hadjichambis
Prof Pedro Reis
Dr Demetra Paraskeva-Hadjichambi

*European Network for
Environmental Citizenship
ENEC Cost Action CA16229*

17. Education for Environmental Citizenship in Portugal – A SWOT Analysis

Pedro Reis

Instituto de Educação da Universidade de Lisboa, Portugal – preis@ie.ulisboa.pt

Abstract: This chapter presents the views of Portuguese experts regarding the Strengths, Weaknesses, Opportunities and Threats of Education for Environmental Citizenship. Seven experts – two teachers, one policy-maker and four researchers/academics – answered the questionnaire developed by the European Network for Environmental Citizenship (ENEC). This analysis shows that the Portuguese Government has supported the main principles behind the concept of Education for Environmental Citizenship (Citizenship Education and Environmental Education for Sustainability) throughout the last three decades. The participating experts have a very positive stance on this approach primarily because of its potential to: 1) address real problems, create meaningful learning contexts and motivate the students' involvement in school activities; 2) empower the students with the knowledge, skills, values and commitment to take the appropriate, responsible and effective actions required for active citizenship with regards to environmental problems; and 3) contribute to changing behaviours to the environment and towards a more democratic and just society. However, they believe that the implementation of Education for Environmental Citizenship is compromised by the lack of teachers' knowledge regarding this approach, by a school culture that is not very supportive of collaborative and dialogical practices, and by a lack of communication and coordination between teachers and school subjects. So, teacher education programmes are considered indispensable for the understanding and large-scale implementation of Education for Environmental Citizenship.

Acknowledgments: This chapter is based on work from Cost Action ENEC – European Network for Environmental Citizenship (CA16229) supported by COST (European Cooperation in Science and Technology). A special thanks to all the Portuguese experts who participated in this SWOT analysis.

17.1 Introduction – Education for Environmental Citizenship in Portugal

The concept of Education for Environmental Citizenship has not been widely used in Portugal. However, there is a long tradition of environmental concern in this country and for more than three decades environmental education for sustainability has been a pillar of Citizenship Education and a fundamental aspect of all education. It is therefore possible to say that there has been a strong commitment by the Ministry of Education towards the promotion of the ideas behind Education for Environmental Citizenship.

Portugal's pioneering spirit regarding environmental concerns was well expressed through the creation of the League for the Protection of Nature (LPN) in 1948, the participation in several United Nations conferences on the environment, and in the implementation of the measures adopted in those meetings.

Environmental Education (EE) is recognised in the Educational System Basic Law (since its publication in 1986) as a learning goal for students at all levels (Diário da República, 1986). Since 1989, environmental education for sustainability has been established as a pillar for Citizenship Education (CE), a fundamental dimension in education. It is seen as an awareness-raising process, promoting values and behaviour and attitudinal changes relating to the environment from a sustainable development perspective. Environmental education for sustainability is present in the curriculum and in the many school projects developed autonomously with the support of the Education and Environment Ministries, local municipalities, several NGOs and other civil society institutions.

However, even though the environment is a topic present in all school subjects through elementary and secondary education, it has not always included its social, political and economic features (Ministério da Educação, 2017). In Science Education (SE), despite the fact that curriculum emphasises the relationship between Science, Technology, Society, and the Environment (STSE interactions) and promotes investigative, dialogic and interdisciplinary practices (Ministério da Educação, 2001), school textbooks and many teachers' practices end up favouring strategies that are less focused on discussion and decision making and do not allow students to critically evaluate and position themselves regarding STSE interaction, therefore limiting their education for active citizenship scope (Galvão, Freire, Faria, Baptista & Reis, 2017).

In order to overcome this situation, the Ministry of Education proposed the Environmental and Sustainability Education Reference Guide in 2017, framing and supporting the implementation of education for citizenship in pre-school, primary and secondary education. This framework aims to encourage the introduction of cross-cutting themes contributing to changing behaviours and attitudes towards the environment for young people, their families and the communities where they live (Ministry of Education, 2017). It identifies global themes, subtopics, learning goals and performance descriptors in the field of environmental education for sustainability, taking into account the student's age and knowledge level. The proposed global

themes are: 1 - Sustainability, Ethics and Citizenship; 2 - Sustainable Production and Consumption; 3 - Territory and Landscape; 4 - Climate Change; 5 - Biodiversity; 6 - Energy; 7 - Water; 8 - Soils.

The Education for Environment and Sustainability Framework also includes a glossary divided into global themes, a bibliography, and a selection of relevant websites. In the glossary for theme ‘1 - Sustainability, Ethics and Citizenship’, the concept of Environmental Citizenship is defined as "the implementation of good practices and public, individual and collective participation in environmental and social issues, through the design and development of information and communication strategies, as well as education and training, using the most appropriate channels, taking into account the requirements of the information society and for life-long learning" (Ministry of Education, 2017, p.103). However, this concept is not mentioned in the main body of this document and does not integrate the current curricular guidelines of the specific subjects at the different levels of education.

Thus, in Portugal, although environmental education for sustainability constitutes a pillar of citizenship education, the concept of Environmental Citizenship education is not frequently integrated in curriculum documents or in the discourse of educational agents.

The following SWOT analysis collected the views of seven Portuguese experts, heavily involved in environmental education initiatives and projects, on the strengths, weaknesses, opportunities and threats of Education for Environmental Citizenship. As shown in Figure 17.1, this group of specialists is composed of men and women of different ages who have a masters or doctoral level of education and practice different activities.

Name	Gender	Education Level	Age Level	Type of Expertise
M	♀	MEd	31-40	Educator – Teacher in Primary Education who works in the field of Science Education
Js	♂	PhD	51-60	Educator – Teacher in Secondary Education who works in the field of Science Education/Physics
H	♂	MEd	41-50	Policy-maker in the Ministry of Education
E	♀	PhD	31-40	Researcher/Academic from the research field of Environmental Education/Education for Sustainable Development/Science Education/Biology – Polytechnic Institute
G	♂	MEd	51-60	Researcher/Academic from the research field of Environmental Education/Education for Sustainable Development/Geography – Polytechnic Institute
F	♀	PhD	>60	Researcher/Academic from the research field of Environmental Education/Education for Sustainable Development/Science Education/Geology – University
Jr	♂	PhD	51-60	Researcher/Academic from the research field of Environmental Education/Education for Sustainable Development/Architecture – University

Fig. 17.1. SWOT analysis participant characterisation

17.2 Degree of Similarity between Education for Environmental Citizenship and other Types of Education

The SWOT analysis participants' perceptions regarding the degree of similarity between Education for Environmental Citizenship and other types of education (EE, SE, CE and Education for Sustainable Development (ESD)) vary considerably (Figure 17.2). For example, regarding the similarity between EE and CE, perceptions range from 1 to 5. The lack of consensus is evident among teachers, with differences reaching up to four levels. Among the researchers/academics there is a greater proximity of opinions, presenting a maximum divergence of two levels.

Name	Type of Expertise	EE	ESD	SE	CE
Ma	Educator – Primary School Teacher	1	1	1	1
Js	Educator – Secondary School Teacher	2	4	2	5
H	Policy-maker	5	4	2	2
E	Researcher/Academic – Science Education/Biology – Polytechnic Institute	4	4	4	4
G	Researcher/Academic – Geography – Polytechnic Institute	3	3	2	3
F	Researcher/Academic – Science Education/Geology – University	2	4	2	2
Jr	Researcher/Academic – Sustainable Development/Architecture – University	2	2	2	2
Average		2.71	3.14	2.14	2.71

Fig. 17.2. Participants' perceptions regarding the degree of similarity between Education for Environmental Citizenship and other types of education (EE, SE, CE and ESD)

Globally, we can say that participants consider Education for Environmental Citizenship to be closer to ESD and further away from SE (Figure 17.3). This result is in agreement with recent research carried out in Portugal that reveals some incapability of SE to promote the critical analysis of the STSE interactions and the dialogic and problem-solving practices of the Environmental Education for Sustainability component, as foreseen in science curricula (Galvão, Freire, Faria, Baptista & Reis, 2017).

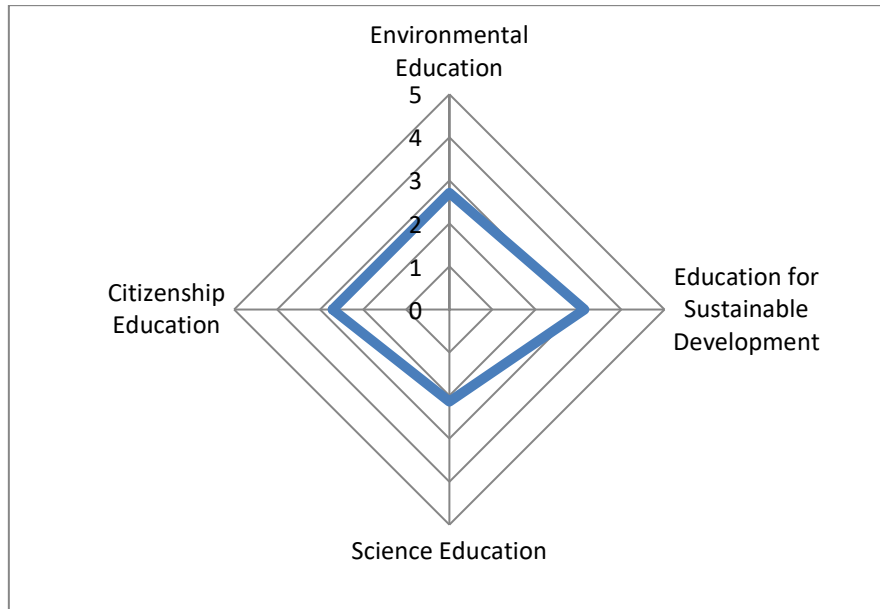


Fig. 17.3. Degree of similarity between Education for Environmental Citizenship and other types of education (1-5)

17.3 Strengths of Education for Environmental Citizenship

According to the experts, Education for Environmental Citizenship has the potential to: 1) promote an awareness about environment and citizens' responsibilities; 2) address real problems with local and global implications, creating meaningful learning contexts, motivating students involvement in school activities and reinforcing their perceptions about the relevance and importance of science education; 3) empower students with knowledge, skills, values and the commitment necessary to take the appropriate, responsible and effective actions that are required for an active citizenship regarding current environmental problems; 4) contribute to change behaviours towards the environment and to a more democratic and just society that won't compromise the rights of future generations; and 5) aim for a more fair distribution of environmental goods. The following quotations illustrate how experts expressed some of these ideas:

“Education for Environmental Citizenship has the merit of developing environmental awareness, promoting values, changing attitudes and behaviours towards the environment, in order to prepare students for the exercise of a conscious, dynamic

and informed citizenship regarding the current environmental problems” (H, policy-maker).

“Application of the principles of citizenship to the environment with a view to its sustainability through a participatory process, individual and collective, focused on the reflection and action on environmental problems affecting citizens on local and global levels with a view to social transformation” (E, researcher/academic).

“Most important in this area of studies is to give the student a creative, participative and active role, and in this way promote a more captivating, engaging and facilitating learning of knowledge” (Js, secondary school teacher).

“The development of more committed citizens” (G, researcher/academic).

“To understand the importance of the environment in general and the rights and needs of future generations, with a view to an environmentally more just society. To fight social exclusion and environmental inequalities. To improve democracy through people’s involvement in decision-making regarding issues that will affect their lives” (E, researcher/academic).

“Fairness of the distribution of environmental goods, a concept that in my opinion is frequently forgotten by western society” (F, researcher/academic).

Education for Environmental Citizenship is considered a broader perspective when compared with other types of education mentioned in the questionnaire (EE, ESD and SE), mainly due to what participants consider to be its main feature: the focus on social transformation through citizens’ democratic involvement in individual and collective problem-solving initiatives centred on environmental problems affecting their life. According to the respondents:

“Education for environmental citizenship has the advantage of promoting action, not just the transmission of information or the increase of knowledge. At school, Education for Environmental Citizenship seeks to involve students, making them feel committed to act in their community and with their families” (M, primary school teacher)

“[The main potentialities of Education for Environmental Citizenship are] To move to informed action, that is, to become active producers of knowledge, through research/inquiry, and the attempt to change situations and behaviour” (Js, secondary school teacher).

“[The main strength of Education for Environmental Citizenship is] To improve or to solve local and global environmental problems through concerted and shared action by various social actors. [Through Education for Environmental Citizenship] Individuals assume the role of decision makers capable of actively contributing to sustainable development” (E, researcher/academic).

“Only Education for Environmental Citizenship can raise a process of environmental awareness, promotion of values, change of attitudes and behaviour towards the environment, in order to prepare students for the exercise of a conscious, dynamic and informed citizenship in order to tackle current environmental problems” (Jr, researcher/academic).

Some participants believe that this focus on action counteracts the sense of incapacity and lack of power regarding socio-environmental problems that is common in the Portuguese population: “[To] Fight feelings of disappointment, lack of control and of incapacity in the face of socio-environmental problems that arise in everyday life” (Js, secondary school teacher).

Some participants call attention to the fact that in Portugal, CE is traditionally considered to be the big umbrella covering EE, ESD and even the basic SE in terms of the scientific literacy considered necessary for an active citizenship regarding socio-scientific issues. Therefore, Education for Environmental Citizenship integrates and mobilises all the available knowledge on CE, EE, ESD and SE into action towards a better environment, bypassing the ambiguity and the different possible interpretations of Sustainable Development that makes this concept difficult to put into operation.

According to the perspective underlying educational policies in Portugal, EE, ESD and EC interrelate. EE only makes sense with a view to promoting sustainable development, and both EE and ESD aim to comprise all citizens, in order to prepare them for a well-informed and active intervention on the issues that relate to the environment and sustainability. Hence, it is fundamental to promote citizenship practices. EE and ESD can thus be considered as components of citizenship education. In what concerns SE, since the identification and solution of environmental problems imply the mobilization of scientific knowledge, it is essential that this type of education is associated with EE and ESD. Indeed, in today's world, given the impact that science has on individuals and society in general, it is increasingly important for young people to be prepared to intervene as citizens on technological and scientific issues, which implies associating citizenship practices with SE (H, policy-maker).

“The very concept of DS, ambiguous and object of different interpretations, results in difficulties in operationalisation and some dissatisfaction about the results” (F, researcher/academic).

17.4 Weaknesses of Education for Environmental Citizenship

The experts had difficulties in separating the weaknesses from the threats, and in the majority of cases the same aspects were repeated in both situations. Therefore, it was decided in this section to only include those weaknesses related to the concept itself that would appear to compromise its implementation on a larger scale. The majority of the obstacles identified by the experts will be addressed in the section on threats.

According to some experts, the main weakness of Education for Environmental Citizenship is connected with its perceived novelty and with the fact that it is still poorly defined, without well-established borders and with a markedly ideological

and political character that can provoke some resistance from teachers – people tend to refuse what they don't know and what is new. Therefore, the implementation of Education for Environmental Citizenship requires a better and shared understanding of the concept by all teachers – regardless of their subject background.

17.5 Opportunities for Education for Environmental Citizenship

The questions centred on opportunities were understood differently by the experts. Some identified opportunities that were raised by the implementation of Education for Environmental Citizenship. Other experts listed activities that in their opinion constituted a good context for Education for Environmental Citizenship.

The main opportunity raised by the implementation/adoption of Education for Environmental Citizenship is connected to what the experts consider to be its main potential: the empowerment of citizens for socio-political action regarding socio-environmental problems, through the development of the awareness, multidisciplinary knowledge, skills, values and the predisposition and willingness to go into democratic action in order to try to solve these problems. This informed and active citizenship has a big impact in society and on the environment. The quality of democracy improves through the active participation of more citizens in the decision-making processes and problem-solving initiatives, with a positive impact on environmental, technological, social and economic policies. Better informed and involved citizens can influence and work with policy-makers towards more socially just and environmentally sustainable policies. Moreover, citizens' lifestyles in general could change in the direction of more democratic and environmentally sustainable behaviours/practices. Some experts highlighted the fact that in Portugal, as a result of school Education for Environmental Citizenship projects, young people have taken good environmental practices to their homes and the community in general.

As examples of good opportunities to promote Education for Environmental Citizenship, some experts presented their experiences with projects involving students and teachers in collective and research-based activism on socio-environmental issues (e.g. project 'We Act'). The involvement in inquiry-based learning activities regarding real-life problems allowed students to identify possible causes and solutions for those situations. This student-developed knowledge was then used for collective democratic problem-solving actions: initiatives where students tried to inform and mobilise the community into more environmental-friendly behaviours. Through the involvement in these actions, students began to recognise themselves as: 1) creators of knowledge (not only simple knowledge consumers as school often appears to support); 2) agents of change, who are capable of successfully implementing actions on their families, friends and communities; and 3) real citizens (independent of not being adults). These and other projects – supported by environmental non-governmental organisations, local authorities and higher education

institutions – articulate the scientific research with the local problems of communities, allowing students to contextualise knowledge and connect schooling to the real world, counteracting what teachers consider to be the apathy of some students in relation to the school activities, and proving to be excellent initiatives of citizenship regarding environmental issues.

17.6 Threats for Education for Environmental Citizenship

This SWOT analysis identified some threats for Education for Environmental Citizenship posed by schools, teachers, students and educational resources.

First of all, Education for Environmental Citizenship requires an interdisciplinary, collaborative and systemic approach that is difficult to materialise in a school strongly marked by a lack of communication and coordination between teachers and school subjects. In a very compartmentalised school it is very hard to find the common spaces and times needed to develop synergies among different knowledge and perspectives. In many schools, this problem is aggravated by a culture that is not very supportive of collaborative and dialogical practices and that doesn't foster plurality of opinions and perspectives. Additionally, during the last six years, some political decisions in the educational area were targeted at promoting better performances in specific subjects (Portuguese Language and Mathematics) than at stimulating interdisciplinary work. Thus, in some experts' opinions, the implementation of Education for Environmental Citizenship requires the development of less extensive curricula, a much more flexible school structure and a new culture, capable of adapting to new demands in terms of school aims, spaces and practices.

Another important threat identified by some experts is the novelty of the concept of Education for Environmental Citizenship and the teachers' consequent lack of knowledge in implementing this approach. Therefore, without teacher education programmes, all the efforts of the Ministry of Education towards the promotion of Education for Environmental Citizenship could be compromised: teachers can misunderstand the concept – identifying it as a synonymous of other more common and limited concepts – and begin implementing superficial and limited approaches to environmental problems not in line with the contextualised, student-centred, interdisciplinary, systemic, inquiry-based and action-based approach of Education for Environmental Citizenship. These programmes would imply a coordinated strategy between the Ministry of Education and the pre- and in-service teacher training institutions in order to promote the scientific and the pedagogical knowledge required for Education for Environmental Citizenship.

In the opinion of three of the experts, some students can represent a threat to the implementation of Education for Environmental Citizenship: 1) showing resistance to an approach they are not used to and don't consider efficient in assuring high results in national exams; and 2) lacking interest and involvement in active methodologies.

The availability of resources for Education for Environmental Citizenship represents another threat pointed out by the SWOT analysis participants. In Portugal, in spite of existing several learning materials and programmes of Education for Environmental Citizenship proposed by different organisations, these resources are not available in one specific and dedicated space. Their dispersion through a multitude of books and websites explains the unfamiliarity of the majority of the experts (both teachers and two of the researchers/academics) with these resources.

In addition, the school curricula do not provide resources for Education for Environmental Citizenship. To overcome this limitation, the Ministry of Education published in 2017 the Environmental Education for Sustainability Reference Framework (Ministério da Educação, 2017), identifying several topics (Sustainability, Ethics and Citizenship, Biodiversity, Climate Change, etc.), learning objectives, performance levels, concept definitions, document references and relevant websites in the area of education for environmental sustainability. This document intends to support teachers – throughout the 12 years of compulsory education and different school subjects – in addressing aspects of Environmental Citizenship in an interdisciplinary approach in order to capacitate students as active citizens regarding socio-environmental issues.

However, according to some of the experts, the pertinence of disseminating examples of good practices in Education for Environmental Citizenship (in a specific portal) taken from successful projects developed by schools, educational authorities and NGOs still persists.

The experts believe that new technologies do not represent a threat to Education for Environmental Citizenship. On the contrary, some think that new technologies can provide new opportunities of protecting our planet, namely through the development of new tools to support research and activism initiatives on environmental issues. Some of them consider that Education for Environmental Citizenship can play a very important role in assuring a sustainable technological development, providing more informed and active citizens capable of an effective action with political and economic agents.

17.7 Differences in the Strengths, Opportunities, Weaknesses and Threats of Education for Environmental Citizenship between Type and Level of Education

The majority of experts consider that there are no differences in the strengths, opportunities, weaknesses and threats of Education for Environmental Citizenship between formal and non-formal education or between primary and secondary education. In their opinion, schools and many other institutions in Portugal, such as museums, non-governmental organisations, companies and other civil society groups, are quite committed to Education for Environmental Citizenship. Only one expert points out that the existence of just one teacher in primary school classes

facilitates a more interdisciplinary approach than in secondary schools, where the teachers from different subjects show some traditional resistance to working collaboratively and in an integrated way.

17.8 References

- Diário da República (1986). Lei no46/86 de 14 de Outubro: Lei de Bases do Sistema Educativo. Retrieved on 27 May 2011, from: http://www.gave.min-edu.pt/np3content/?newsId=31&fileName=lei_46_86.pdf.
- Galvão, C., Freire, S., Faria, C., Baptista, M. & Reis, P. (2017). *Avaliação do Currículo das Ciências Físicas e Naturais: Percursos e Interpretações*. Lisboa: Instituto de Educação, Universidade de Lisboa.
- Ministério da Educação (2001). *Ciências Físicas e Naturais – Orientações curriculares para o 3.º ciclo do Ensino Básico*. Lisboa: Autor.
- Ministério da Educação (2017). *Referencial de Educação Ambiental para a Sustentabilidade para a Educação Pré-Escolar, o Ensino Básico e o Ensino Secundário*. Lisboa: Autor.

The European Network for Environmental Citizenship (ENEC) – funded as a COST Action (CA16229-Horizon 2020) – brings together more than 120 experts from 37 countries with the objective to improve the understanding, the practice and the assessment of Environmental Citizenship in Europe and the participating countries.

Environmental Citizenship has been an influential concept in many different arenas such as economy, policy, philosophy, organizational and corporation management and marketing and could be better exploited and established furthermore in the field of education as well.

This report examines the Strengths, Weaknesses, Opportunities and Threats of Education for Environmental Citizenship in Europe. In the first part of the report, the need for Education for Environmental Citizenship, is examined along with the methodology and results of an extensive research from more than 157 experts in 28 European countries and Israel. In the second part of the report, the country chapters for the 23 European countries and Israel emphasise the similarities, differences and special features of these case studies.

ISBN: 978-9963-9275-6-2



Funded by the Horizon 2020 Framework Programme of the European Union



European Network for
Environmental Citizenship
Cost Action CA16229

