

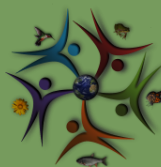
# European SWOT Analysis on Education for Environmental Citizenship



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



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European Network for  
Environmental Citizenship  
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ENEC Cost Action Report

# **European SWOT Analysis on Education for Environmental Citizenship**

*Edited by*

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### **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.

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## 6. Education for Environmental Citizenship in Croatia

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**Abstract:** SWOT analysis is an established and useful method to find the best path in solving a problem or making a decision. The aim of this chapter is to analyse the strengths, weaknesses, opportunities and threats of Education for Environmental Citizenship in Croatia based on the answers of six experts in the fields of environment and education. Education for Environmental Citizenship is a multidisciplinary proactive approach that aims to raise awareness about the environment. However, a number of weaknesses and threats have been identified that could jeopardise the whole concept. All respondents have a predominantly positive attitude on the opportunities of Education for Environmental Citizenship, along with different opinions on the strengths, weaknesses, opportunities and threats of Education for Environmental Citizenship between formal and non-formal education.

**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).

### 6.1 Introduction

The world today is faced with severe environmental problems. Climate change, billions of people living in an unhealthy environment, degradation of natural resources, growing amount of waste, loss of biodiversity and many other issues require immediate and quick actions and responses (UN, 2015). Environmental problems reflect in huge social and economic problems; hunger and poverty, social inequality, wars, growing disparities between the well-off and less well-off etc. (UN, 2015). These elements have become main issues of key documents of global development, among which the most significant is the document *Transforming our world: the 2030 Agenda for Sustainable Development* adopted by the United Nations in 2015. It contains 17 sustainable development goals that aim to solve or reduce main prob-

lems in the world by 2030. The document puts special attention on the improvements and preservation of the environment, implicitly involving the Environmental Citizenship and other types of pro-environmental behaviour.

Environmental citizenship shares some common elements with other concepts – sustainability citizenship, ecological citizenship, green citizenship, environmental knowledge and environmental attitude – but they differ in terms of their contents and actions. Although some authors treat environmental and ecological citizenship as equal, Dobson (2003) makes a clear distinction between them and associates ecological citizenship with green citizenship. Environmental citizenship, along with pro-environmental attitudes and actions, includes certain rights and duties towards the environment, and it is inevitably connected with justice (Dobson, 2007).

Researchers generally agree that the most effective way in order to solve the environmental problems is the education of the societies (Pooley and O'Connor, 2000; Barry, 2007; Stevenson, 2007; Arslan, 2012). The education about environment aims not only an increase in the educational knowledge of the individuals but also turning the positive attitudes about the environment into behaviour (Arslan, 2012). The concept of Environmental Education is a process of learning to understand the interaction of human and the environment and how human need to manage the environment as smart as with full responsible towards a harmony and peaceful life (Lateh and Muniandy, 2010).

Education has always been part of Environmental Citizenship, as well (Cao, 2015) and it goes a step further, aiming to develop skills, values, attitudes and competences at environmental citizens as agents of change in the direction of solving contemporary environmental problems, preventing the creation of new environmental problems, in achieving sustainability as well as developing a healthy relationship with nature (ENEC, 2018).

The most important theoretical background on the Education for Environmental Citizenship were made by Dobson (2003) and Cao (2015). Although not explicitly related, findings of the research on environmental knowledge and environmental attitudes of different social groups (Meerah et al., 2010; Tayci and Uysal, 2012; Sadik and Sadik, 2014; Orellana-Rios et al., 2017) can be implemented in the Education for Environmental Citizenship. The study of Arslan (2012) revealed the role of Environmental Education on critical thinking and environmental attitude.

The aim of this study is to analyse the strengths, weaknesses, opportunities and threats of Education for Environmental Citizenship in Croatia. It is necessary to emphasize that Environmental Citizenship as a term is currently not present in Croatia, both in formal and non-formal education. However, many of its aspects have been integrated in formal and non-formal education. Education for Environmental Citizenship is also present in many aspects within formal and non-formal education, but not as a holistic concept. Both curriculums of primary and secondary education in Croatia include some courses and/or subjects that correspond to Environmental Citizenship and Education for Environmental Citizenship (MSES, 2006; NCEEE, 2015). Environmental Citizenship is mostly part of subject curriculum of Biology, but some aspects of Environmental Citizenship are also present in the Geography curriculum. However, many aspects of Environmental Citizenship are also present



on the pre-school level (up to 7 years old) and lower level of primary school (pupils between 7 and 10 years old) (MSES, 2006, MSES 2011). Within the non-formal education, aspects of Environmental Citizenship are also present through many activities of government, local administrative bodies and other organisations (e.g. non-governmental organisations).

## **6.2 Strengths of Education for Environmental Citizenship in Croatia**

Education for Environmental Citizenship is very important for young people in Croatia, since it influences their awareness regarding environment and possibilities to contribute to sustainable development. It is also important because it teaches young people the necessity to preserve the environment for future generations. Respondents believe that Education for Environmental Citizenship could give students and teachers an active role in society and be an important connection between schools and the local community. Education for Environmental Citizenship would educate students through real life problems from a practical and everyday perspective, to compel them to think about their future life and to participate in social actions and projects. Education for Environmental Citizenship can provide the use of modern methods of learning, such as fieldwork or examples of good practice. Since an extremely important part of Croatian education is the curriculum, Education for Environmental Citizenship can provide an opportunity to implement and improve it in its completeness.

Education for Environmental Citizenship can have an important role in promoting fairness in the distribution of environmental goods and responsible behaviour, as well as promoting public involvement in policy creation. People who lack a deeper understanding of environmental issues could become more conscious and they could be encouraged to solve environmental problems by their own actions.

The aim of Education for Environmental Citizenship is not just about the environment, but also of how to expand the knowledge and skills of each participant as a part of lifelong learning. It can improve competence (i.e. communication, social competence, empathy, etc.) and eventually be beneficial for the environment.

Almost all respondents agreed that Education for Environmental Citizenship is better than other types of education (e.g. Environmental Education (EE), Education for Sustainable Development (ESD), Science Education (SE), and Citizenship Education (CE)). It is a wider concept and other types of education already include it. The respondents think that Education for Environmental Citizenship is more effective than other education types because it connects actors on different operational levels, it affects the reduction of social inequalities and could be a part of lifelong learning. Education for Environmental Citizenship is a proactive education. It includes a multidisciplinary approach, the possibility of incorporating into other educational areas and the adaptability of educational content to target groups.

The concept of Education for Environmental Citizenship can be characterised as a holistic approach concept whereas other concepts are more partial (EE often concentrates on biology, neglecting the abiotic factors or indirect implications of many human activities; ESD often neglects some social aspects and turns more toward economy; SE relates to students and does not include the general public; CE overlaps only in a small part with the concept of Education for Environmental Citizenship).

Education for Environmental Citizenship can be implemented in schools, jobs and everyday life. In the conditions of global environmental problems raising awareness of the environment does not have an alternative and this can easily be done through Education for Environmental Citizenship. One respondent claimed that there is no need for so much terms for the practically same thing, since EEC is only new term for already known types of education (i.e. Environmental Education). Respondents think EEC can not give anything new comparing to already known concepts in Environmental Education. Respondents obviously think that Environmental Education is kind of "general" topic (or term) and is some kind of umbrella for other (new) educational terms (like EEC is).

### **6.3 Weaknesses of Education for Environmental Citizenship in Croatia**

As previously mentioned, some respondents believe that it is hard to distinguish Education for Environmental Citizenship from other types of education. Moreover, they claimed that it is already part of EE and that there is a lack of information about the programme.

One respondent mentions that the Croatian population is not interested in preserving the environment, and that big corporations refuse to accept all postulates of sustainable development.

Not enough time is being allocated for Education for Environmental Citizenship in school lectures throughout the curriculum, and could be seen as an additional learning burden if not properly incorporated into the curriculum. The number of school courses is usually high in Croatia, so it would be difficult to introduce a separate course but Education for Environmental Citizenship could be included as a part of certain existing courses or project assignments.

Education for Environmental Citizenship does not have an immediate impact but it strives for long-term development goals, which can cause disapproval from local and national policies, groups or individuals. The lack of concrete and clear examples of good practice is obvious, especially in developing countries.

One of the weakness for Education for Environmental Citizenship is an overload of the administration work that is present in Croatian school system. It should also avoid too many facts and numeric data. One respondent thinks that Education for

Environmental Citizenship is in-sufficiently supported by the local and regional governments in conducting workshops.

According to one respondent, students are convinced that there is they have no say in the matter and that everything depends on someone else or global forces.

Education for Environmental Citizenship should become a part of lifelong learning and be more present in schools, colleges and public institutions. More educations, workshops, posters should be provided, and people must realise that they play an important part in preserving the environment. Education failure is possible if the topics are of little interest so Education for Environmental Citizenship would not attract much attention.

Education for Environmental Citizenship would do well to avoid being oversimplified on one side and overly complicated (uncomprehensive to general public) on the other. It would be beneficial to use appropriate visual techniques and examples from everyday life and avoid focusing on biotic factors. It must provide a well-balanced approach including demography, human activities, social issues, economic activities, infrastructure, abiotic factors, etc.

#### **6.4 Opportunities of Education for Environmental Citizenship in Croatia**

All respondents have a predominantly positive attitude on the opportunities of Education for Environmental Citizenship but some of them express certain doubts about its introduction to formal and non-formal secondary education. Faced with the local and global climate changes that require changes to habits, tools, policies, etc., Education for Environmental Citizenship could raise the general knowledge and awareness level on environmental issues. It could also fulfil the need for lifelong learning and personal development and change the awareness of the environment by raising responsibility and changing personal habits. Some of the respondents however believe this would only be possible if it were part of primary education (elementary school). According to their opinion, opportunities of Education for Environmental Citizenship would give people the power to see how a single person, a responsible citizen of the world, would be able to make a difference. However, since Education for Environmental Citizenship is very likely to start first in the formal education system, it would primarily involve young people (teens) and school teachers who can solve particular environmental problems within their local communities.

The respondents listed several contemporary trends that could improve the opportunities of Education for Environmental Citizenship, such as sustainable development and nature protection. This is largely conditioned by the severe consequences of climate changes (e.g. droughts, floods, and fires), demographic changes (particularly migration) and the increased demand for tourism of special interests. In Croatia, the growing trend of schools and teachers applying and participating in

the EU projects with their students is very important; this contributes to networking and sharing experience, knowledge and skills. Some of the interviewees also mentioned the significance of computer technologies in education, online education courses on Environmental Citizenship in particular and its promotion on social networks.

## **6.5 Threats of Education for Environmental Citizenship in Croatia**

Respondents are quite aware that there are real and potential obstacles, ranging from a state to individual level, that challenge Education for Environmental Citizenship. Most of them see the political decisions as a potential threat to its success. Some countries have insufficient and deficient environmental protection laws and some pander to big companies for profits. A potential threat is also a repetition of known policies under a new name. Almost all interviewees think the key obstacle could be the general attitude of the population; insufficient interest and awareness of the population on environmental problems or the lack of care or motivation for Environmental Citizenship ('no one sees and cares for what I do'). The respondents think it is a matter of mentality of people and their resistance to any changes. These attitudes might be a result of a lack of knowledge and information on Environmental Citizenship, but also of the existing school curriculum (particularly in the case of Croatia) as it does not allow too many new initiatives, resulting in a lack of school teachers interested in promoting Education for Environmental Citizenship.

The respondents were asked to compare Education for Environmental Citizenship to other types of education (e.g. EE, ESD, SE or CE). Some think that other types of education have better effects (EE, ESD), while the others think the advantages are that some of them have already been implemented in school curriculum (CE) and that formal education ends with a certificate or a diploma, proving the adopted outcomes of the education. Two respondents see other types of education as focused on a certain aspect, which could be explored more deeply (such as biology in EE or science in general in SE), but they do not have the same scope as Environmental Citizenship because they are different.

One of the problems relating to the lack of information on Environmental Citizenship is the shortage of learning materials, programmes or services in Croatia. The respondents think that the materials are insufficient or lacking completely, and whilst there are none specific to Education for Environmental Citizenship, there are materials on certain topics in different projects (local or national) or services and activities on a local, national or EU level that tend to solve structural disadvantages in the communities. Some segments of Education for Environmental Citizenship are already included in the school curriculum.

The respondents do not agree that changing technology threatens Education for Environmental Citizenship, particularly if the curriculum is adjusted and new forms

of teaching are introduced. On the contrary, they believe that new technologies make the participation in different projects relating to EE easier and that education has to change and adjust to new trends.

The interviewees' opinion on the threat of weaknesses to Education for Environmental Citizenship are divided. Two respondents think that weaknesses cannot seriously threaten it and that the concept will become more present in society. However, four respondents find the following factors to be a threat to its successful implementation: insufficient information among the general population, lack of care for the environment and other people, lack of familiarity with the principles of the concept, lack of time for teachers and students involved in the projects related to the Education for Environmental Citizenship (due to great amount of regular teaching and studying), political decisions, interest of capital (private companies), mentality, and resistance to change.

## 6.6 Comparison of Different Types of Education

The respondents were asked to compare formal and non-formal education with EE and its differences in primary and secondary education, and to compare Education for Environmental Citizenship to other types of education (SE, ESD, EE, and CE).

They have different opinions on the distinctions of the strengths, opportunities, weaknesses and threats of Education for Environmental Citizenship between formal and non-formal education. Two respondents think that Education for Environmental Citizenship is more viable in formal education and less so in informal. One says that it should be included in as many courses as possible, each to approach the concept from its point of view, keeping in mind the same goal. Others see different strengths of Education for Environmental Citizenship in formal and non-formal education: formal education is more powerful in institutions (schools, work) and non-formal education is stronger in everyday habits and behaviour. Its strengths are further emphasised in non-formal education than in formal education. One interviewee finds more opportunities for Education for Environmental Citizenship in non-formal education, which focuses more on the effects that certain actions have on the environment and their detrimental effects on nature.

The interviewees do not determine differences in the strengths, opportunities, weaknesses and threats of Education for Environmental Citizenship between primary and secondary education. They believe the final goal is the same but the teaching methods are different and both primary and secondary education can implement it. Education for Environmental Citizenship in primary education should focus more on attitudes and behaviour, while in secondary education it can be more complex, involving a deeper knowledge. Teens also show more initiatives than those pupils in primary schools because they are more responsible and independent.

The respondents' opinions on the similarity between Education for Environmental Citizenship and other types of education revealed great differences. Based on average scores of their responses on the Likert 1-5 scale (1 – not similar, 5 – very

similar), they find Education for Environmental Citizenship to be most similar to ESD (average score 4.2), followed by EE (3.8), CE (3.6), and least similar to SE (2.3).

## 6.7 Conclusion

A SWOT analysis of Education for Environmental Citizenship in Croatia was performed with a conclusion that it has many strengths and opportunities and also many weaknesses and threats that could jeopardise the whole concept. Education for Environmental Citizenship is extremely important since it influences an awareness regarding the environment and outlines a number of possibilities to contribute to sustainable development. However, it needs to be better implemented in both formal and informal education in Croatia as a holistic concept and part of a lifelong learning process. More time for Education for Environmental Citizenship must be provided within the curriculum in the form of lectures, workshops, posters and field trips. Education for Environmental Citizenship could raise the general knowledge and awareness level on environmental issues. Its aim is not only to educate, but also to develop competences and include public involvement and policy creation. However, some respondents think it is hard to distinguish Education for Environmental Citizenship from other types of education as it is already part of EE. Potential threats to the success of the concept could be political decisions and the general attitude of the population, such as insufficient interest and awareness of on environmental problems or a lack of care and motivation for Environmental Citizenship. One of the problems relating to the lack of information on environmental citizenship is the shortage of learning materials, programmes or services in Croatia, and this needs to be improved upon.

Different opinions on the differences in the strengths, opportunities, weaknesses and threats of Education for Environmental Citizenship between formal and non-formal education are also present. They find formal education to be more powerful in institutions (schools, work) and non-formal education to be stronger in everyday habits and behaviour. However, the interviewees do not determine differences for Environmental Citizenship between primary and secondary education. They believe the final goal is the same but the teaching methods are different and both primary and secondary education can implement it.

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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.

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