

## EDUCATION FOR SUSTAINABLE DEVELOPMENT – SOCIAL AND TERRITORIAL COHESION VECTOR

CS drd. *Andreea CONSTANTINESCU*<sup>1</sup>, CS I dr. *Victor PLATON*<sup>2</sup>

### Abstract

*Sustainable development process supports human solidarity and responsible attitude the same way that educational process creates individual characters and competences. Under the pressure of climate change, maintaining social and territorial cohesion remains a priority objective of sustainable development. In this context, any advocacy for transforming education for sustainable development into mandatory educational discipline meets the need to move from awareness on the importance of environmental issues towards change of attitude and behavior on this topic. In the absence of educational support for ecological attitude, efforts of the scientific community and civic specialized organizations risks failing to receive the necessary public adhesion in order to disseminate good practice.*

**Key-words:** *education for sustainable development, climate change, environment, social and territorial cohesion.*

**JEL classification:** I25, A13

### INTRODUCTION

Romanian Education and Research Ministry approved through no. 1862/30.08.2007 Order *Environmental and Ecologic Education*, as optional course, and methodical guidelines for pre-school, primary and secondary education. This happened on one side, because of the utmost importance shown by UN thorough UNESCO to *education for sustainable development (ESD)* and proclaiming 2005-2014 as sustainable education official decade, and, on the other hand, due to some Romanian initiatives.

This paper aims both to analyze the current state of ESD on global scale as well as the premises for ESD to become a mandatory course in secondary education in Romania.

The contribution of this paper falls within the efforts made within the research and educational institutions to integrate ESD, as a central pillar in the plan to transform the strategy for sustainable development into national priority.

The importance of the topic addressed is that ESD, placed within general frame of *ecological education*, suits to the objectives set at the Tbilisi conference in 1977 - first intergovernmental conference on environmental education:

- Raising awareness and informing the public on environmental issues;
- Thorough knowledge of essential aspects of the environment as a whole;
- Training of skills and abilities of observation, experimentation and research;
- Forming an environmental ethic (attitudes, principles, beliefs);
- Creation of behaviors that reflect concern for quality of the environment;
- Develop a sense of responsibility, possible alternatives, and establish penalties for inappropriate behavior towards nature (M. Mazilu, 2008, p.9).

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<sup>1</sup> Institute of National Economy , andreea\_constantinescu07@yahoo.com

<sup>2</sup> Institute of National Economy, victor.platon@clicknet.ro

## 1. EDUCATION FOR SUSTAINABLE DEVELOPMENT – A RESPONSE TO THE LACK OF SOLIDARITY CRISIS

Educational process, traditionally centered on student interests, intends to promote as educational objectives, even in modern curriculum theory and New National Curriculum (established in 1998), acquisition of skills and competences, not just behaviors. The framework objectives are tracked over several years of study and refers to skills acquired through the study of curriculum area or a discipline module. The main objectives are tracked during a single year of study and address competences followed by study of one particular discipline (S. Velea, 2006, p.22).

However, the framework objectives nor reference objectives can not replace the increasing need for value, principles and behavior recovery in order to build a sustainable community through educational process. Education for Sustainable Development, deeply rooted into environmental conservation active process, has real potential to become a mandatory educational discipline (already mandatory in some European countries) capable to prepare young people for actions targeted to an environmental oriented society evolution (O. Mândruț, 2010, p.12).

ESD allows acquisition of knowledge, skills and values necessary to create a sustainable future. It integrates key-aspects of sustainable development in teaching and learning process, for example climate change, reducing disaster associated risks, biodiversity, reducing poverty and sustainable consumption. ESD involves participative teaching and learning methods in order to motivate students to change their own behavior and to take action for sustainable development. Because it is promoting different competences, like critical thinking, imagining future scenarios and collaborative decision-making, ESD needs profound changes towards nowadays educational methods (E. Roșu, 2009, p.37).

ESD is an answer to challenges posed by climate change, continuous environmental degradation and lack of solidarity - aspects that require development objectives and educational process rephrasing.

Table 1 synthesizes specific competences that will be acquired by students through ESD, keeping in mind that sustainable development elements are interdisciplinary and that young people must be encouraged to get involved in projects regarding sustainable and environmental development.

<b>Capacity building of experimentation through appropriate tools and procedures</b>	
Reference Objectives	Learning activities
<ul style="list-style-type: none"> <li>–understanding environmental relationships;</li> <li>–causal relationship argumentation;</li> <li>–carry out experiments to demonstrate various phenomena;</li> <li>–knowing the institutions that can provide relevant data;</li> <li>–choosing/reading books/magazines that can reveal the importance and beauty of nature.</li> </ul>	<ul style="list-style-type: none"> <li>–preparation of observation sheets of phenomena and behaviors;</li> <li>–exploring the natural environment;</li> <li>–achieving empirical descriptions;</li> <li>–visits to museums, teaching games;</li> <li>–using literary works as awareness methods;</li> <li>–use of solidarity scenarios.</li> </ul>
<b>Educating a civilized behavior towards environmental care and protection</b>	
<ul style="list-style-type: none"> <li>–define pollution in simple terms;</li> <li>–listing pollution factors;</li> <li>–observation of pollution effects on the environment;</li> <li>–identify ways to tackle polluters;</li> <li>–participation in environmental protection actions.</li> </ul>	<ul style="list-style-type: none"> <li>–observations on pollution factors;</li> <li>–warning on the dangers of environmental pollution in school and district;</li> <li>–competitions and exhibitions on pollution subject;</li> <li>–activities to strengthen solidarity.</li> </ul>

**Table 1: Specific skills acquired through ESD**

## 1.1. Transmitting values and principles of sustainable development through civic initiatives

Sustainable development covers all forms and methods of socio-economic development, whose foundation is, first, to ensure a balance between the socio-economic and natural capital components. Thus, it gains new meanings that tend to unite the environment, society and economy in sustainability paradigm (R. Niță, M. Bulgaru, 2010, p.3). According to one of 18 principles set out in the Rio Declaration, sustainable development "requires a scientific approach to the issue"<sup>3</sup>. This shows the need to involve education in implementing the concept of sustainable development, taking into account the particularities of educational systems.

Agenda 21 refers to the importance of ESD in the following terms:

- the need to reorient education as a promoter of sustainable development;
- awareness of the need for sustainable development;
- importance of training<sup>4</sup>.

In this context, without trying to reduce the importance of informal education, it must be emphasized the need for systematic formal educational process in order to achieve optimal efficiency level.

In Romania (and other countries) there was support to ESD from non-governmental institutions. However, due to the complex link between education and sustainable development, ESD must exceed the level of discussion between stakeholders.

Between civil society initiatives to support ESD, attention should be drawn to that of Romania World Wide Fund for Nature (WWF), which in 2011 established a Department of Education, assimilated to ESD by joining UNESCO Decade objectives. The WWF has been involved in educational activities that came with most environmental conservation projects, in order to provide the best possible information and community involvement in targeted areas. These initiatives are gathered under the generic name of *environmental education for sustainable development* and they underline that environment is a priority for Romania, as a member state of the European Union (N. Ludușan, 2011, 9.13).

Also as a result of *Partnership for Sustainable Development Project* co-financed by the European Social Fund Operational Programme Human Resources Development 2007 - 2013 "Investing in people", initiated by Save the Danube Delta in partnership with Active Watch and implemented with the support the Center for sustainable Policies Ecopolis was constituted the first collection of online resources for sustainable development in Romania, Comunitatedurabila.ro.

## 1.2. UNESCO ESD Decade – promoting good practice

In order to maintain a healthy environment, the United Nations declared 2005-2014 decade as ESD Decade - widely considered to be a good opportunity to integrate disparate concepts and tools of many disciplines for greater knowledge and understanding of sustainable development. Thus, it is encouraged proactive attitude, the concept of inter-and transdisciplinarity and identifying the unsustainable elements of communities. ESD Decade is actually an opportunity to refocus education towards awareness that we are all responsible for the future of our planet<sup>5</sup>.

As institution responsible for implementation of the ESD Decade, UNESCO has recently released a monitoring and evaluation progress report which reviews the commonly accepted learning processes that should be promoted, as well as learning opportunities that can contribute to sustainable development. Education for Sustainable Development Study

<sup>3</sup> Rio Declaration on Environment and Development, 1992.

<sup>4</sup> Agenda 21, Cap. Promoting Education, Public Awareness and Training, par.36.2

<sup>5</sup> Report on the UN Decade of Education for Sustainable Development, Abridged, 2012, p.25-30.

commissioned by the UNESCO Division for Education, Peace and Sustainable Development, has identified a number of key-processes underlying the Framework Programme and ESD practices: collaboration and dialogue, curriculum innovation, teaching and learning experiences and active and participatory learning processes. Each of these categories is analyzed and exemplified in thirteen case-studies selected worldwide<sup>6</sup>.

Although the map of where ESD action takes place is quite extensive, UNESCO report acknowledges that data on processes and learning opportunities of ESD are difficult to access, since they are rarely documented in detail. Despite the fact that there is an abundance of information about specific objectives and expected outcomes of projects, data that would show how they are achieved are missing (D. Tilbury, 2008, p.172).

ESD is not conducted only in school, even if this activity is best documented in specialized literature. In education system, the approach of participatory and active learning is seen as the most appropriate for sustainable development. Contribution provided by educational sector is considered very important, which makes education the main instrument in trying to make sustainable development a reality.

In this context, World Sustainable Development Teach-In Day was held in early February this year (2013), an ESD Decade event that encouraged participation of universities worldwide. Following the experience gained from dissemination of good practice, academic staff and students were encouraged to commit themselves in education for sustainable development (B. Hollingshead, 2010, p.310).

ESD efficiency is illustrated by the case of the British city Sheffield, recognized as one of the major mining centers in the industrial period, where environment quality has been severely affected. In the early '80s, in local development strategy appears authorities' intention for regenerating the entire community, not just the environment. Integrating education campaigns in the common effort to regain their identity and dignity, resulted in transforming the area into a model for the application and promotion of sustainable development principles (D. Tilbury, 2007, p.18).

## **2. NATIONAL CONTEXT AND ESD ORIENTATION TO RESTORATION OF SOCIAL AND TERRITORIAL COHESION**

Sustainable development is a very dynamic concept, seen as a continuous process of change, very tied to the local context, needs and regional priorities. The fact that many professionals do not feel the need for a single definition of this concept leads to understanding that no matter how you define it, the problem is the same: the need to ensure a sustainable future (M. Espinet, 2005, p.38). On the background of diverging interests of local communities, social and territorial cohesion loss is a problem that exceeds regional level and requires international cooperation and careful management.

Regarding international context of education for sustainable development, especially after the 1992 Rio Conference, it became clear that ESD should be introduced because of the global recognition that education is the most effective tool available to society to address challenges of the future. Effectiveness of education, from a sustainable development perspective, is measured ultimately by the changes taking place in the attitude and behavior of people, individually (N. Geamănă, 2008, p.11).

Romania has, since the end of 2008, a second National Sustainable Development Strategy, undertaken by the government and considered to be the strength of the national context to conduct formal ESD. Also, of major importance is how the structural and cohesion funds are used so that project results will lead to real and sustainable development and to achieving the objectives assumed by Romania under *Europe 2020 Strategy*.

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<sup>6</sup> Inventory of innovative practices in education for sustainable development. Final report, 2008, p.4-22.

At national level it is even more urgent ESD to become a priority for policy makers involved in the educational process and not just civil society who support under its own *power creation of a National Strategy for Education for Sustainable Development*. Laying the foundations of this Strategy could provide recognition of the central role of sustainable development in the current educational context and should also ensure application of its values and principles in Romanian society (R. McKeown, 2002, p.16-19).

In this respect, must be outlined the *Assistance and Programs for Sustainable Development Association - Agenda 21* contribution on managing multi-annual project "Achieving the Millennium Development Goals". It aims to involve students and teachers from four countries of the European Union and Republic South Africa in education programs and development projects. Activities are built on two components: training and formal education activities to ensure achievement of ESD curricula and activities with young people to achieve ESD projects in schools and community (N. Culger, 2012, p.22).

Along with this project must be mentioned creation of the first ESD learning space which opened in Cluj, Romania, through an after school program. Learning Centre has an ESD learning program through Ecosystem animation system for children aged 7-13 years, which will enable them to develop skills covered by ESD. Educational principles underlying the entire program are learning by doing and project-based learning (M. Ivănescu, 2008, p. 52).

ESD become irreplaceable to support social and territorial cohesion because it is education that transmits values such as gender equality, social tolerance, poverty reduction, environmental protection, natural resource conservation, etc. As major decision making element, Ministry of Environment and Climate Change has engaged in ESD through partnerships and joint development of civil society, promoting the concept of sustainable development into school curricula. Together with the Ministry of Education conducted the country report on Education for Sustainable Development in Romania, document submitted in October 2010 at the UN Economic Commission for Europe (O. Perju, 2011, p.21-29).

## **2.1. Approaches to include ESD in the mandatory national curriculum**

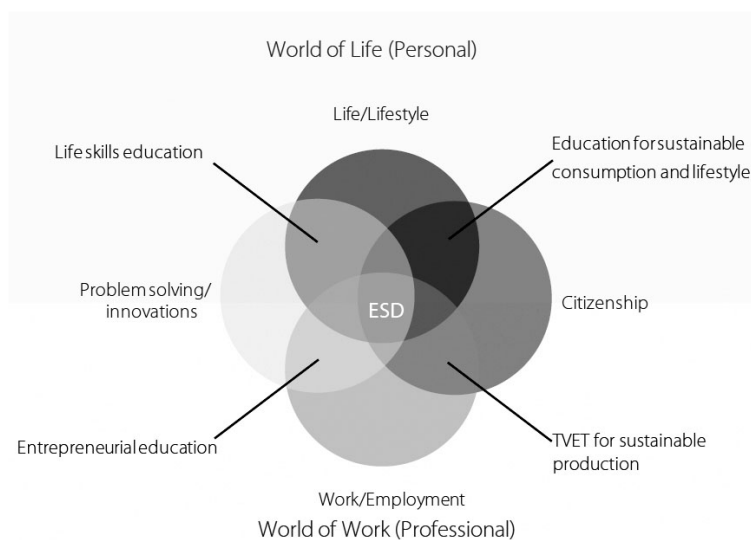
In academic circles is getting stronger the idea that ESD is the natural follow-up of environmental education (A.Wals, 2012, p.60). Strangely, the more a society is more educated and wealthier its negative impact on the environment is higher, educating citizens appearing insufficient to achieve sustainable development. ESD remains the only one able to help achieve the sustainable development goals (L.Pintilie, 2009, p.7).

As first initiatives in promoting ESD has to be mentioned The Guideline for environmental education of Mare Nostrum Organization, published in 2007, and another guideline published in 2009 by "Danube Delta Reserve" Organization. They provide a summary of the ESD concept, based on the key elements presented in numerous international documents promoted over the last few decades, proposing activities that can also be applied in the educational projects. Following these initiatives, the Romanian Ministry of Education has established a working group that will develop national reports for implementation of the National Strategy for ESD.

ESD has, besides the ability to change people's attitude towards the environment, the ability to influence people's thinking in the sense of responsibility (K. Öllerer, 2012, p.34). The curriculum of "Education for sustainable development through Geography" course is the most important step so far to raise ESD to the status of mandatory discipline in secondary education (N. Ludușan, 2011, p.3-54).

Despite the fact that ESD has not been undertaken so far in Romania as a strategic objective of reforming the educational system, it becomes a necessary component of the curriculum reform, especially given the fact that ESD was completely absent from the debates new law of Education, adopted in 2011 (D. Dumitru, 2011, p.6).

Figure 1 highlights the fact that by extending ESD in formal education can be provided as a prerequisite for understanding the crucial importance of sustainable development and an essential tool for understanding the interdependence between economic and social plans and good management, the adoption of informed decisions and keeping social and territorial solidarity.



**Figure 1: ESD interference with economic and social areas**

## 2.2. Financing of Education for Sustainable Development

ESD cost is difficult to quantify because its implementation has not been made nationally organized, but on the initiative of European institutions and organizations. One example is the SEED project, developed through the European Agency for Education, Audiovisual and Culture (EACEA).

European Network Comenius “School for Environmental Education Development” (SEED) is a group of authorities and educational institutions that promote environmental education as a driving force for sustainable school development. In 20 European SEED partner countries, environmental education promotes innovative teaching and learning culture that drives sustainable development education.

Country	Number of Projects Developed	% of total
Germany	30	54,55
Great Britain (UK)	28	50,91
Bulgaria (BG)	8	14,55
Romania	9	16,02
<b>Total</b>	<b>55</b>	<b>100 %</b>

**Table 2: Main European countries participating in SEED Project**

Out of the 55 projects contracted Romania participated as a partner in a number of nine projects and coordinated a single project, "Virtual Community Collaborating Space for Science Education". Within SEED partner countries, Germany ranks first, with a percentage of 54.5% participation in projects with the position of coordinator for most projects developed. Because data on project budget is not broken down by partners, it cannot be done

an assessment of the financing taken by our country, but participation in approximately 16% of all projects, demonstrate an active involvement in promoting ESD in Romania.

## CONCLUSIONS

This paper examined how a part of the international community came to meet the urgent need to improve the relationship between man and nature, responding to UN initiative to declare the decade 2005 - 2014 as the decade of ESD.

In this context, ESD brings together a new motivation of the educational act, enabling stakeholders in education to participate creatively in finding alternatives and evaluate alternatives for a sustainable future.

Financing needed to implement ESD is difficult to estimate. However, importance of the subject should prevail in decision making, given that the benefits of education for sustainable development are on medium and long term.

Capable to generate on short and medium term, a change in people's mindsets, we consider that ESD is able to provide that approach enabling its integration into the national system of formal education and not to remain just at the dissipation level in other disciplines or informal learning.

Also, through ethical dimension - which is a central part to both sustainable development and ESD - we can expect that acquisition of expanded responsibility feeling by students will become a shifting pivot in current educational system, based excessively on providing information, into a modern educational system, according to current requirements, based on the recognition of priority issues and identifying participatory solutions.

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