- SECTION SOCIAL AND EDUCATIONAL POLICIES –

EDUCATION – A PILLAR OF SUSTAINABLE DEVELOPMENT

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Abstract: *Sustainable development is a complex process that requires both economic, social and human development, while maintaining a healthy environment, that does not affect the living conditions of future generations. Education is a central pillar of sustainable development, because through education it is ensured innovation and progress, but it is understand the role of maintaining a healthy environment. Educated people adapt more easily to labor market requirements and have the chance to earn more and have a greater stability in the labor market. This paper presents the role of education in ensuring sustainable economic development, under the current requirements of the transition to a green economy.*

Keywords: education, sustainable development, green economy

JEL classification: I25, Q01

1. Introduction

Sustainable development relies on economic, social and environmental foundations to improve quality of life and well-being of both the present and future generations. An important factor of development is education. An educated person is more likely to adapt to changes in the labor market, to face the competition and achieve higher earnings, which bring an increase in human welfare. However, in a community or society, the more people are educated, the more the level of development of that society and the disposition for innovation and progress increase. Therefore the objective of investing in education, in the continuous training of individuals, is found in any development strategy in the medium or long term.

In today's economy, in which it aims at transition to a green, environmentally friendly, the labor force training consistent with the requirements of green jobs is growing. Green economy requires the development of environmental activities in all areas and the efficient and rational use of resources, with emphasis on expanding the use of renewable resources. Also, the green economy involves developing knowledge, research and innovation, to create a framework for ensuring thee long-term sustainable development. (Babonea A.M., Thursday RM, 2012) This involves adapting educational programs to the transformations in the economy and the labor market. But, the educational system is not always ready to cope with this demand of green skilled workers, often it is necessary to have a period of adaptation. (SustainLabour, 2013) Therefore, educational policies generate results in the medium and long term. These results depend on many factors, such as: quality of education, ensuring the link between training and labor market requirements, participation in lifelong learning, skills anticipation for the future, continuity of policies and strategies adopted, government spending during the implementation of these strategies. Government policies, educational strategies, skills strategies and continuous training are fundamental elements in the transition to a low carbon economy. The way they are related with the principles of green economy and to the degree of their implementation depends on their contribution to ensuring sustainable development.

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2. Education for Sustainable Development

Education for sustainable development is how to make people to be responsible for creating a sustainable future. This level of education requires besides improving access to basic education and skills development, behaviors and knowledge for living in a green and healthy economy. It is based on five objectives:

- learning to know, which involves acquiring knowledge about sustainability, taking into account the relationship with the environment;
- learning to be, which refers to the knowledge of the complexity of man's relationship to society, environment and economy;
- learning to live together, which means learning to live with others, without affecting the present and future generations;
- learning to do, which means to contribute to a sustainable economy through their own decisions;
- learning to transform oneself and society, which means accepting change to make the transition as easy as, to a sustainable society, environment friendly. (UNESCO, 2016)

To achieve the above objectives, it is necessary to implement these concepts from childhood, which means that notions about sustainability, green economy and care for the environment should be included in school curricula at all levels. Childhood education creates skills, which influence the behavior and the adult personality, which is demonstrated through specialized studies (Siraj-Blatchford J.; Smith K.C.; Samuelsson I.P., 2010) The human personality includes both what has man from nature and what does he accumulate through education and training. (Savu M., Ciucur D., 2014) At the same time, education influences the evolution of occupational structures and is, in turn, influenced by it, in the context of the transformation of society and the transition towards sustainable economy. Education continues in different forms throughout the period of active life thus education market and labor market support and influence each other. (Serban A.C., 2012). As any society is the result of education of its members, education generates effects on economic, social and human development.

3. Aspects of education for sustainable development in Romania

"Education is the most effective means that society possesses for confronting the challenges of the future" (UNESCO, 2002) Thus, education is a basic element which contributes to the goals of sustainable development. Therefore it is very important how to develop educational programs, especially in the development of the concept of education for sustainability. Education for sustainable development involves not only the introduction of the topic of sustainability at all levels of training, but also correlating education goals for sustainability with those of general education. (Bărbuță R., Meşteru D.S., Moldovan C., 2016)

Romania has made progress in terms of development programs and educational policies, but efforts must continue to follow the trend of highly developed countries to create a future world skills required.

To observe the situation in Romania, in terms of educational situation, we followed several indicators, essential for ensuring sustainable development.

Lifelong Learning Indicator, which shows public participation in lifelong learning, recorded the lowest value, at EU level, for Romania. Countries with the best results from this indicator are Switzerland, Denmark, Sweden, Finland and Norway, countries that have invested heavily in programs and educational strategies (Figure no. 1). For Romania, this result means a great disadvantage because the low participation of the population to the

continuing education means a difficult adaptation of it to changes and competition on the labor market.

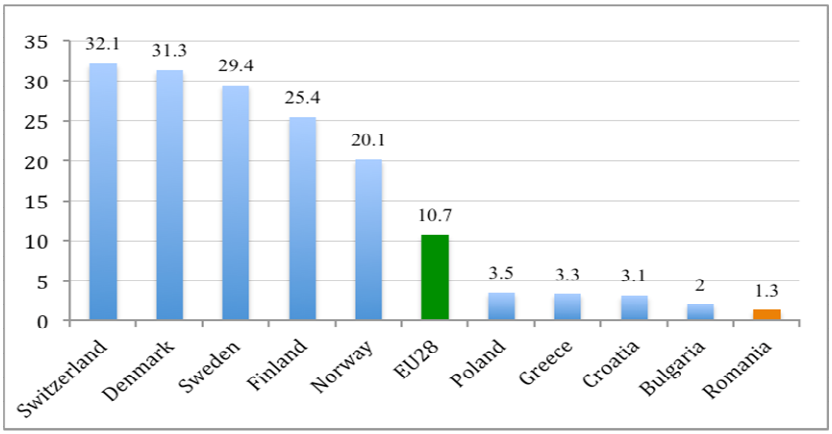

Figure no. 1. Lifelong Learning, 2015
Source: http://ec.europa.eu/eurostat/data/database

And in terms of early leavers from education and training, Romania is in a weaker position, having the highest level of this indicator among EU countries (Figure no. 2). This means a low confidence of young people in the education system and a negative impact on youth unemployment. These young people, who leave early education system, could become a social burden, as they adapt harder to labor market needs and can not get enough income for a decent living.

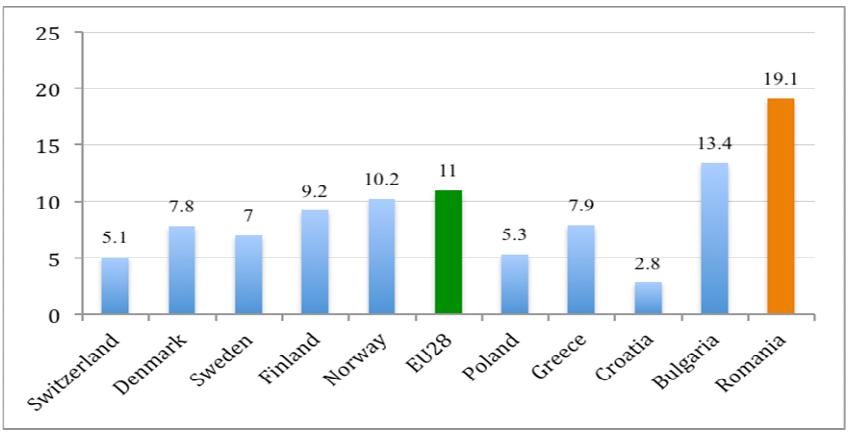

Figure no. 2. Early leavers from education and training
(% of the population aged 18-24 years), 2015
Source: http://ec.europa.eu/eurostat/data/database

Sustainable development also requires investments in research, development and innovation. Analyzing research and development expenditure as a share of GDP, we see that they are the lowest in Romania, towards the countries analyzed. In Romania, in 2015, they accounted for only 0.49% of GDP, compared to 2.03% EU28 average (Figure no. 3).

In recent years, research has declined in Romania due to reduced investments in this area. (Teselios D., 2015) We must not lose sight of the very important role of research in the development and progress of a society. The effects of investment in education and research are observed in the long term, which often makes these areas might not be a priority for government policies which tend to follow, especially in short term. The underdevelopment of research and innovation area produces the following effects: decreasing economic performance and competitiveness, reducing entrepreneurship,

migration of researchers to other countries or redirecting them to other areas, all this amplifying the economic and social losses in the long term.

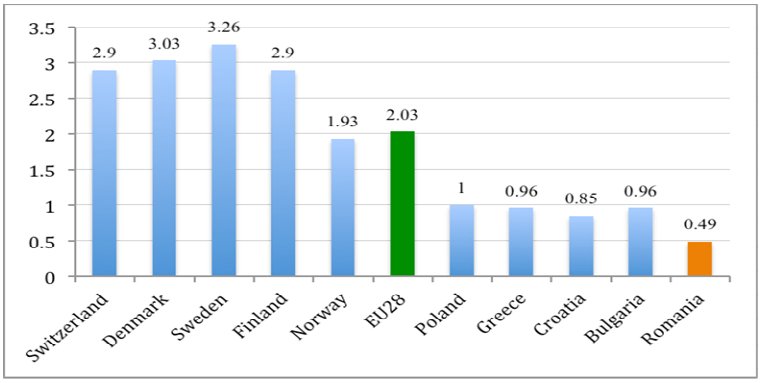

Figure no. 3. Total R&D Expenditure (% of GDP), 2015
Source: http://ec.europa.eu/eurostat/data/database

According to Green Business Index or Eco-Inovation Index, Romania has made progress in understanding and in awareness on the importance of the environment for all economic activity. Thus, companies in Romania have diversified their programs and projects which aim at implementation of green management and increasing environmental responsibility. The vast majority of Romanian companies which are involved in the realization of Green Business Index ratio (91.3%), aim at the adoption of an environmental policy and is actively involved in its implementation. (Green Revolution, 2016)

Eco-Innovation Index, a composite indicator which is calculated at EU level to show environmental aspects in innovation activities, shows a good position of Romania in relation to other European countries (Figure no. 4). This indicator captures aspects of the implementation of measures/innovations to reduce energy consumption, investment in green activities, efficient use of resources, reduce CO2 emissions. These results, for Romania, show a high potential for expanding activities involving a greater care for the environment.

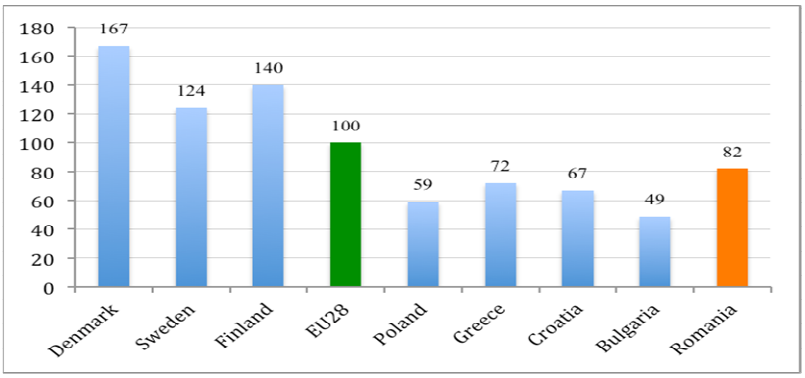

Figure no.4. Eco-Innovation Index, 2015
Source: http://ec.europa.eu/eurostat/data/database

These indicators are based on only some aspects of Romanian education status and concerns for developing research-innovation in accordance with requirements of ensuring sustainable development, which means both economic development and human, social and environmental development. The steps that Romania must follow below are those that fall it on the development trend imposed by the need for transition to a healthy economy for man and environment.

4. Conclusions

Education is the path to progress of any nation, being a main pillar of sustainable development. Education for sustainable development is a priority of the European and international strategies, which means that individuals and companies to focus on knowledge, innovation, the creation of highly skilled, care for the environment and quality of life.

Education for sustainable development aims to solve the problems of excessive consumption, inefficient use of resources and pollution through awareness and responsibility. It addresses the elements of equity, solidarity and responsibility in the present and future generations, to improve the relationship between man and nature.

To adapt to these trends, Romania should continue its efforts to improve the correlation of educational programs to labor market needs to improve, through suitable programs, the participation in lifelong learning and to give more importance to research and development area. Also, an important goal for the educational policies and strategies in Romania, is the development and expansion of educational programs that addresses sustainability issues at all levels.

References

1. Babonea Alina Mihaela, Joia Radu Marcel, (2012), Transition to a green economy – a challenge and a solution for the world economy in multiple crisis context, Theoretical and Applied Economics, Volume XIX (2012), No. 10(575), pp. 105-114, http://store.ectap.ro/articole/788.pdf

2. Bărbuță Rodica, Meşteru Doina S., Moldovan Camelia, (2016), Sustainability - a new cross competence and transformational goal of contemporary education, CREER (Resources Center for Eco-Bio Education, Resilience and Sustainability), https://creeracord.wordpress.com/2016/11/15/sustenabilitatea-o-noua-competenta-transversala-si-obiectiv-transformational-al-educatiei-actuale/

3. Green Revolution, (2016), Green Business Index Report, https://www.gbindex.ro/wp-content/uploads/2016/05/Catalog_Green_Business_Index_2016.pdf

4. Savu Mihaela, Ciucur Dumitru, (2014), The Population's Economic Education In The Romanian Actuality, Management Strategies Journal, Issue 4(26), "Constantin Brâncoveanu" University,http://www.strategiimanageriale.ro/images/images_site/articole/article_c7f54b2308ae2dae5583c33d55b85690.pdf

5. Siraj-Blatchford John, Smith Kimberly Caroline and Samuelsson Ingrid Pramling, (2010), Education for Sustainable Development in the Early Years, World Organization for Early Childhood Education, http://www.327matters.org/Docs/ESD%20Book%20Master.pdf

6. SustainLabour, (2013), Green Jobs and related policy frameworks. An overview of the European Union, http://www.sustainlabour.org/documentos/Green%20and%20decent%20jobs-%20An%20Overview%20from%20Europe%20FINAL.pdf

7. Şerban Andreea Claudia (2012), Implications of Educational Attainment on Labour Market, Theoretical and Applied Economics, Volume XIX (2012), No. 3(568), pp. 137-148, http://store.ectap.ro/articole/703.pdf

8. Teselios Delia, (2015), Expenditure Impact Of Research-Development In Romanian Economy, Management Strategies Journal, Issue 2 (28), http://www.strategiimanageriale.ro/article-2015-id-67-issue.no..2.(28)-462-expenditure.impact.of.research..development..in.romanian.economy.html

9. UNESCO, 2016, Education for Sustainable Development (ESD), http://portal.unesco.org/geography/en/ev.php-URL_ID=14132&URL_DO=DO_TOPIC&URL_SECTION=201.html

10. UNESCO, 2002, Education for Sustainability, World Summit on Sustainable Development Johannesburg, 26 August – 4 September 2002