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CONCEPTUALIZATION AND FORMULATION OF THE MODEL OF SUSTAINABLE DEVELOPMENT IN BIH

Summary: *Bosnia and Herzegovina is a small and poor country, but with a great potential for the implementation of green economy, environmental entrepreneurship and the preservation of the eco systems. As developed countries have already achieved significant results in sustainable development and environmental entrepreneurship and the conservation of the eco system, in particular the EU countries, this paper strives to present the measures that would be useful for the sustainable development of Bosnia and Herzegovina. Sustainable development constitutes a harmonious relationship between the environment and economy, so that the natural resources of our Planet could be preserved for the future generations. In that context, the aim of this work is to point in the direction of balancing social and economic development with environmental protection. Descriptive method and desktop research have been used in order to provide theoretical contribution by defining the most significant factors of growth and environmental protection.*

Key words: *Sustainable development, ecology, economy*

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INTRODUCTION

Sustainable development supports economic, social and human development while at the same time facilitating protection, regeneration and resilience of the eco systems. Sustainable development is achieved by enhancing sustainable, inclusive economic growth, reducing inequality, increasing basic living standard, enhancing equitable social development and inclusion, integrated and sustainable management of natural resources and eco systems.

A large number of international organisations, through special programs and ongoing activities, support the reconstruction and development of Bosnia and Herzegovina. However, Bosnia and Herzegovina has not been implementing a consistent strategic framework for reconstruction and development. Also, the International Community (European Union, World Bank, programs of other countries) has been introducing the practice of environmental protection in BiH in an organised manner, but not sustainable development, which is why this paper will present the factors of sustainable development.

1. ELEMENTS OF THE MODEL OF SUSTAINABLE DEVELOPMENT IN BIH

The term *sustainable development* has been understood and defined in different ways. Let us mention the definition of the World Commission on Environment from 1987: „Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs (UNESCO 2007).

Sustainable development, as the model of development focuses on meeting the needs of people and overcoming the conflict between the economy and ecology. By implementing this

model in practice it is possible to create conditions for the economy and ecology to go hand in hand. In order for this development to take place without contradictions, it is necessary to take into account social issues, starting from the lowest (local) to the highest (global) levels of their appearance. The aim of sustainable development – sustainability (i.e. sustainable usage of resources) – is achieved through a dynamic process of improving the technical-technological basis of work and increasing the social wealth and the quality of life, while being mindful of the need for environmental protection and the need of future generations for natural resources (Štrbac and Vuković and Voza and Sokić 2012). We may say that Bosnia and Herzegovina, as a country going through a very difficult economic period, has a great need for new economic ideas, economic activities in order to improve the economic situation, which affects the entire country.

Indicators of poor economy are reflected in high unemployment rate, in particular among young people. There is little care about the environment in Bosnia and Herzegovina. There is illegal exploitation of natural resources. In addition, there is a great risk for animals, for example an indigenous type of horses Bosnian Mountain Horse is endangered. There is also endangerment of urban areas (less green areas, unplanned construction of residential buildings). Funds allocated for healthcare have continuously been decreasing (closing down of health centers in small municipalities and very poor conditions for providing healthcare services in most of the health centers). Funds allocated for scientific research and education system are below the European average which is 3% of GDP. Pension-disability system does not have a clear restructuring strategy. There is a continuous increase of prices in the economy of Bosnia and Herzegovina, which leads to expense inflation which further leads to stagflation of economy, i.e. the prices are increasing and the economy is stagnating. This is the consequence of reduced spending because all types of income remain unchanged: workers' wages, pensions, social benefits, and on top of that there is irregular payment of income one earns or is entitled to. Reduced spending has a negative effect on the production and investments, which by way of multiplication negatively affects the employment rate and all other macroeconomic aggregates.

Solving and improving the economic situation in Bosnia and Herzegovina requires radical changes which will lead to the improvement of the living standard of the citizens and to building a better and more promising social structure. Green economy as part of the sustainable development and a model can be the foundation for the development of BiH, where all the elements of the sustainable development would reduce poverty and remove all negative activities which jeopardize BiH on its path to building a better and a more regulated society. Green economy may be more important for BiH than it is for many European countries.

Although green economy, with all its elements, shows benefits that can be achieved by countries which invest in green countries, BiH still does not have significant investments in the field of green economy. On the other hand, current practice in BiH is contrary to the provisions of the EU directives. Due to inconsiderate moves promoted by BiH institutions, they could be facing large penalties and sanctions which would put Bosnia and Herzegovina in a more difficult position. Potential penalties for not implementing reforms could be imposed by the EU.

Based on the above, BiH will have to pay more than half a billion marks of "punishment" to the European Energy Community due to high emissions of greenhouse gases. Having in mind that the factors which jeopardize the environment constitute negative externalities (external economy of production) and that they are sanctioned by non-market-based measures and they constitute measures of transposing costs into benefits through premiums, rights, taxes and other ways of paying for repairing the damage. The amounts for repairing the damage are always high in order to destimulate economic activities that have harmful effect on the environment and stimulate environmentally sound economic activities. Therefore, BiH will have to pay for the emission of carbon dioxide (CO₂). Potentially, in ten years time BiH

could become a member of the EU. However, even if it does not become a member, Brussels will certainly not allow a "big chimney" in the heart of Europe. A non-market-based solution for the existing and planned thermal power plants roughly amounts to 282m Euros a year, as the price could rise from five to even 30 euros per tonne of CO₂, which is expected already in 2025 (Dnevni list 2015). For these reasons, Bosnia and Herzegovina should switch to green economy, as the amounts of money for repairing negative externalities are too high for BiH's developing economy.

If we are able to establish targeted training and education programs, we will more easily implement ambitious strategies to encourage innovation and green investment. This will enable the creation of millions of viable, high quality green jobs, many in small and medium-sized businesses (Đukić and Okanović and Stević 2015).

Despite the great expectations of a sustainable development model, a major obstacle to its realization is the insufficiently developed ecological awareness of a generation of individuals. The question is how to motivate current generations to work actively with an eye to the future and to the needs of the latter generations. It seems that the level of responsibility expected from the current population towards future generations is in discrepancy with counter-service (compensation) that can be counted on by the present generation. The emergence of an over-generational sense of communion, as well as the consciousness of one's own position in a line of generations, could further contribute to a more expressed presence and implementation of the idea of sustainable development (Štrbac and Vuković and Voza and Sokić 2012).

2. FUNCTIONALITY OF THE MODEL OF SUSTAINABLE DEVELOPMENT OF BiH

In order for the sustainable development model to become functional in BiH, it must develop a strategy based on the economy of knowledge, scientific achievements, and modernization of institutions that will be more functional and developed in accordance with developed country institutions, which is one of the conditions for BiH's accession to the EU. The economy of knowledge is increasingly reaching a primary position on the social scale and as such is becoming a trend in developed countries.

Success in adapting to globalization processes and changing the environment in which individuals, companies and national economies live, work, and act is manifested in evaluating knowledge as a crucial and strategic economic resource. If we are to believe in the endogenous theory of growth, there is no other option left because it emphasises the importance of knowledge, i.e. education, research, innovation, invention and human capital. That is, the very accumulation of knowledge and investing in human capital appear as key determinants of technological progress, unlimited economic growth, rising yields and improvement of the living standard (Jakovac 2012).

BiH as a post-war country has become a major area yearning for scientific achievements that could improve its development. Based on this, we can conclude that in order to achieve BiH's progress and its development, financial allocations are necessary which will put science into a privileged and priority position in order for BiH to finally achieve a stable and focused society that will result in a better and more prosperous life of the population living in these areas. We are witnessing that the governing structures do not care about science and that little money is devoted to science, therefore it is on the margins of society, whilst it should be the cornerstone of BiH development. As little money is being allocated for science, it is on the margins of the society, while it should be the backbone of the development of BiH. Such behavior and position of institutions towards science will have catastrophic consequences for BiH's development, and it is high time for such things to change. Knowledge-based society is the only BiH exit to address the accumulated problems, especially in the area of economy and sustainable development, as BiH is classified as one of the poorest countries in the EU.

3. DETERMINATION AND INTERRELATIONSHIP OF DEPENDENT AND INDEPENDENT VARIABLES IN THE PROPOSED MODEL

Sustainable development is generally defined as a coherent (harmonious, uniform, equable, balanced) development, i.e. a process of change in which the exploitation of natural resources, the direction of investments, the orientation of scientific and technological development, personality development and institutional change are mutually harmonized, strengthening the present and future resources (opportunities) to meet human needs. It is in principle related to the development of society, economy and natural environment (ecology), which is presented to point to the importance of institutional changes in the part of economic development, as evidenced by theory and practice. However, it is clear that the basic tasks that follow social and environmental development also presuppose a continuous and strong institutional support (legal, corporate, informative, cultural and other). The processes of social, economic and ecological changes are closely linked and intertwined (Delibašić 2014).

It can be established that by institutional strengthening and creation of a common policy in the field of environment at all levels of government in Bosnia and Herzegovina, all barriers to the smooth implementation of environmental policy should be removed in order to obtain a better-quality approach to the ecosystem in the future. Institutions, through their joint collaboration, create a strategy to preserve the ecosystem in order to prepare the ground for the removal of harmful effects by nature and create an environment for investment in the field of green economy. In the process of preparing investment areas and using natural resources to the extent that is allowed by the sustainable development, it is necessary to seriously approach the development of regulations that will support the development of investments in the green economy.

A set of sustainable development indicators needs to be developed in order for us to „know“ where we are and where we are going, through all accessible and comparable indicators of the state and trends. Competent decision-making is impossible without the relevant indicators, to assist decision-makers at all levels. Developing, stimulating and measuring the development of the environmental infrastructure, which contributes to the sustainability of development (solid waste and wastewater treatment, public water supply, irrigation and water management systems and others). The development of all segments of society depends on the development of environmental infrastructure (water supply, sewerage, wastewater treatment, solid waste management, etc.). On the other hand, depending on the economic development of society, investments are made in these segments of the so-called social standard. However, poor societies remain poor because they do not develop environmental infrastructure, which actually gives a key contribution to the sustainability of overall development. Measuring environmental infrastructure development is a prerequisite for managing its development, and thus the overall development. „Development“ that (excessively) pollutes the environment may eventually seem successful in a short run, but in any longer period, it returns with a drastic fall in the quality of life (CMED2009).

With the approximation of Bosnia and Herzegovina to the EU, Bosnia and Herzegovina is committed to applying EU legislation and to further aligning its legislative activities with EU legislation. In its full capacity, Bosnia and Herzegovina, through the two entities and the Brčko District, already implements EU legislation in many segments of its legislation. By establishing strong legal regulations in the field of environmental protection, Bosnia and Herzegovina would move closer to its ultimate reach, which is the sustainable development that is aspired to be achieved. To achieve better standards for environmental protection, it is necessary to constantly innovate the existing projects and to develop new ideas in the field of environmental protection and the constant support of projects that will improve the relationship between man and nature and lead to better quality of life of the human population. Based on the results of the investigation it can be concluded that BiH is facing

serious environmental problems. Particular emphasis should be placed on under-developed capacities, as well as on many socio-economic and institutional problems as follows: lack of environmental policy and legislation, insufficiently developed capacities, divided further between entities and cantons, lack of public participation in the policy and environmental decision-making process, unclear delimitation of responsibilities and obligations of various institutions dealing with water, forest, environment, health, agriculture, etc., lack of monitoring and equipment, lack of co-operation between entities and interested parties (Government, NGOs, citizens, etc.), lack of economic initiative (fees, taxes, “the polluter pays” principle), lack of training and lack of professional knowledge, poor management, lack of staff and financial resources, as well as adequate training, insufficient interest in environmental issues, and lack of general public awareness. It is common ground that integration into the European Union is of huge importance for the future of Bosnia and Herzegovina. The entry of BiH into the EU must be a goal that will lead to positive changes in the country’s environment. Apart from the economic, legislative and political problems that need to be solved, BiH could also achieve environmental self-sustainability (Mehmed and Šeremet and Draganić and Stefanović 2002). Therefore, an important factor of sustainable development is the social development of humans, along with the development of awareness about individual and collective responsibility.

4. ECONOMIC JUSTIFICATION OF THE MODEL SUSTAINABLE DEVELOPMENT OF BiH

Sustainable development, by promoting green economy as an integral part of the economic component, opens up space for new ideas, technologies, investments that will lead to a more efficient use of natural resources, which goes in favour of the people from BiH, because new economic projects lead to job creation, employment and a more stable economic situation (Ristić K 2014). The development of modern technology is perhaps a new project of the future, in the form of green economy, which all humanity will take part in. Technical-technological progress contributes to the creation of higher quality, cheaper products with lower level of environmental pollution. New technologies contribute to the economy of scale and they are the generator of economic development. Therefore, new technologies are an important factor of sustainable development.

Green economy improves the development of economic discipline. Green economy is also recognized as a key factor for sustainable development, as it contains all three components of sustainable development. The green economy, with its economic component, opens up new types of business, socially succeeds in employing a new workforce, and the environmental protection component manages to protect the existing resources, develops new ways of their usage, protects their nature with new scientific achievements, i.e. uses science in its full capacity to preserve the eco system.

With its development possibilities, the green economy reduces the use of existing energy sources such as wood, fossil fuels and uses renewable energy sources such as sun, wind and water, thereby reducing the pollution of nature and developing new technologies for the use of renewable energy sources and thus developing new branches of economy. The green economy outlines other industries such as agriculture, wardrobe production, tourism, manufacturing of pottery, green construction, etc. From the proposed economic activities, we can conclude that the green economy is the best friend of humans and sustainable development. Increasingly expanding the consumer society, the destruction of natural capital is created, which leads to a disrupted ecological system. Destruction of the natural capital results in a damaged eco system.

The key to the functional definition of sustainable development is the understanding that ... the human community, ... must be organized by looking at natural ecosystems ... (It) should be organized so that its lifestyle, its economic and physical structures and technologies do not

disturb the permanent ability of nature to be maintained, but to help it. Sustainable communities develop their lifestyles in constant interaction with other human and inhuman living systems. This does not mean that “sustainable development” contradicts the changing of relationships and things. This is by no means a static state, but a dynamic process of coevolution (M Bičo Ćar - 2015).

Sustainable development recognizes green economy as one of the cornerstones of solving sustainability issues. The green economy needs support from the wider public as a recognizable element to invest, subsidize, strive for constant innovations, cooperate with a large number of countries for the purpose of acquiring and expanding knowledge from ecological economies, develop strategies, and direct the entire society to achieve maximum sustainability.

Benefits of green economy are reflected in the following: increasing the attractiveness of the economy, increasing foreign direct investment, transferring new knowledge and technology, increasing exports, selling high-margin products and services, energy independence, increasing the environment, Low Carb (a low-pollution society) perseverance, healthy population and workforce, reducing unemployment and creating jobs that adequately pay workers. BiH and its chances of developing green jobs are:

- Sustainable green agriculture (produce healthy organic products for export),
- Food processing industry that will finalize agricultural products with zero levels of preservatives and additives,
- Renewable sources (hydro and wind capacities).

If we know that the production of energy from renewables (renewable sources) employs 2.7 workers per worker from the traditional energy sector by megawatt (MW) of produced energy, it is clear what the capacities of this sector are in recycle and export recyclates, education of so-called green managers who, in addition to classical education in management, will also rule the subjects such as energy, moral investing in social responsibility, green agriculture. It is very important to distinguish the concepts of education on sustainable development and education for sustainable development. The first deals with theoretical discussions on sustainable development while others imply the use of knowledge as a means of achieving sustainability (Bolesnik and Radisic and Ferenecak and Dobromir and Bolesnikov 2012).

One of the prominent US economists, Pol Krugman, the Nobel Prize winner for Economics, in his book “End This Depression Now”, says that investments in green economy are a solution for job creation and solving many of the accumulated problems, the priority of which in BiH are poverty and environmental protection.

CONCLUSION

Based on the overview of a part of fundamental and theoretical knowledge, with this paper we have tried to emphasize the significance of sustainable development and environmental entrepreneurship as one of the factors of future growth and development, as well as the significance of the preservation of natural resources for future generations.

Although green economy, with all its elements, shows benefits for countries which invest in green economy, BiH still does not have any significant investments in the area of green economy.

On the other hand, Bosnia and Herzegovina has all the predispositions for the development of ecological entrepreneurship, primarily because of its rich and preserved natural resources. Ecological entrepreneurship in its activities utilizes energy more efficiently. Green economy with its economic, social and environmental components balances sustainable development and improves economic growth. It can be concluded that BiH has a chance with its natural potentials in the development of ecological economy. Therefore, BiH needs to build its future on green economy, thus becoming a leader in the development of green economy. Eco

business is a chance to be the first in the economic sector that is currently experiencing strong growth in Europe and the world. Thanks to “green economy”, eco business is growing, which implies increase in job creation. By investing in eco business, investments are also made in a progressive market.

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