

ISSN 2560-421X

UDK 33+502/504

# ECONOMICS

## of Sustainable Development

2



Vol. II

Niš, 2018

**ECONOMICS OF SUSTAINABLE DEVELOPMENT**  
**ЕКОНОМИКА ОДРЖИВОГ РАЗВОЈА**



**ДРУШТВО ЕКОНОМИСТА “ЕКОНОМИКА” НИШ**  
**SOCIETY OF ECONOMISTS “ЕКОНОМИКА”, NIS**



# **ECONOMICS**

## **OF SUSTAINABLE DEVELOPMENT**

**EDITOR-IN-CHIEF:**

Prof. Dragoljub Simonovic, Ph.D., University of Nish, Faculty of Economics, Serbia

**ASSISTANT EDITORS-IN-CHIEF:**

Zoran Simonovic, Ph.D., Institute of Agricultural Economics, Belgrade, Serbia

**EXECUTIVE EDITORS:**

Prof. Bojan Krstic, Ph.D., University of Nish,  
Faculty of Economics, Serbia

Prof. Snezana Zivkovic, Ph.D., University of  
Nish, Faculty of Occupation Safety, Serbia

Prof. Slobodan Milutinovic, Ph.D., University  
of Nish, Faculty of Occupation Safety, Serbia

Prof. Sonja Jovanovic, Ph.D., University of  
Nish, Faculty of Economics, Serbia



**PUBLISHER:** Society of Economists "Ekonomika", Nis

## EDITORIAL BOARD

Prof. Tatjana Ivanova, Ph.D., Ulyanovsk State University, Russia

Prof. Marijan Cingula, Ph.D., University of Zagreb, Faculty of Economics, Croatia

Tatjana Anatoljevna Salimova, Ph.D., Mordovia State University "N.P.Ogarev", Faculty of Economics, Saransk, Russia

Prof. Zorica Vasiljevic, Ph.D., University of Belgrade, Faculty of Agriculture, Serbia

Prof. Aleksandar Grubor, Ph.D., University of Novi Sad, Faculty of Economics, Serbia

Prof. Andriela Vitic-Cetkovic, Ph.D, University of Montenegro, Faculty of Tourism and Hotel Management, Kotor, Montenegro

Prof. Velimir Stefanovic, Ph.D., University of Nish, Faculty of Mechanical Engineering, Serbia

Prof. Dragoljub Zivkovic, Ph.D., University of Nish, Faculty of Mechanical Engineering, Serbia

Prof. Slavko Bozilovic, Ph.D., University Union-Nikola Tesla, Serbia

Prof. Lela Ristic, Ph.D., University of Kragujevac, Faculty of Economics, Serbia

Prof. Jugoslav Anicic, Ph.D., University Union-Nikola Tesla, Serbia

Prof. Dejan Krstic, University of Nish, Faculty of Occupation Safety, Serbia

Prof. Danijela Despotovic, Ph.D., University of Kragujevac, Faculty of Economics, Serbia

Prof. Sanja Filipovic, Ph. D., Economics Institute, Belgrade, Serbia

Prof. Mirjana Radovanovic, Ph. D., Educons University, Sremska Kamenica, Serbia

Prof. Violeta Domanovic, Ph. D., University of Kragujevac, Faculty of Economics, Serbia

Prof. Vesna Stojanovic Aleksic, Ph. D., University of Kragujevac, Faculty of Economics, Serbia

Prof. Vladimir Micic, Ph.D., University of Kragujevac, Faculty of Economics, Serbia

Prof. Svetislav Milenkovic, Ph.D., University of Kragujevac, Faculty of Economics, Serbia

Prof. Dragana Gnjatovic, Ph.D., University of Kragujevac, Faculty of Hotel Management and Tourism, Vrnjci Spa, Serbia

María Dolores Sánchez-Fernández, Ph.D., University of A Coruña, Spain

Prof. Electra Pitoska, Ph.D., School of Management & Economics, Kozani, Greece

Prof. Mirko Markič, Ph.D., Faculty of Management Koper, University of Primorska, Koper, Slovenia

Prof. Konrad Grabinski, Ph.D., Crakow University of Economics, Crakow, Poland

Prof. Drago Cvijanovic, Ph.D., University of Kragujevac, Faculty of Hotel Management and Tourism, Vrnjci Spa, Serbia

Predrag Vukovic, Ph. D., Institute of Agricultural Economics, Belgrade, Serbia

Prof. Nikola Radivojevic, Ph.D., High Technical School of Professional Studies, Kragujevac, Serbia

Nikola Curcic, Ph. D., University Union-Nikola Tesla, Serbia

Prof. Marko Jankovic, Ph.D., Faculty of Business Economics and Entrepreneurship, Belgrade, Serbia

Prof. Ana Langović Miličević, Ph.D., University of Kragujevac, Faculty of Hotel Management and Tourism in Vrnjačka Banja, Serbia

Prof. Milovan Vukovic, Ph.D., University of Belgrade, Technical Faculty, Bor, Serbia

Ivana Karabegovic, Ph.D., University of Nish, Faculty of Technology, Leskovac, Serbia

## PUBLISHING COUNCIL

Prof. Jelena Petrovic, Ph.D., University of Nish,  
Faculty of Sciences and Mathematics, Serbia

Prof. Slobodan Cvetanovic, Ph.D., University of  
Nish, Faculty of Economics, Serbia

Prof. Vesna Sekulic, Ph.D., University of Nish,  
Faculty of Economics, Serbia

Prof. Snezana Radukic, Ph.D., University of Nish,  
Faculty of Economics, Serbia

Prof. Marija Petrovic Randjelovic, Ph.D.,  
University of Nish, Faculty of Economics, Serbia

Prof. Igor Mladenovic, Ph.D., University of Nish,  
Faculty of Economics, Serbia

Prof. Svetlana Sokolov Mladenovic, Ph.D.,  
University of Nish, Faculty of Economics, Serbia

Boban Nikolic, Ph.D., University of Nish, Faculty  
of Mechanical Engineering, Serbia

Tanja Stanisic, Ph.D., University of Kragujevac,  
Faculty of Hotel Management and Tourism in  
Vrnjačka Banja, Serbia

Filip Djokovic, Ph.D., Singidunum Univrsity,  
Belgrade, Serbia

Tamara Radjenovic, University of Nish, Faculty  
of Economics, Serbia

Miloš Krstic, Ph.D., University of Nish, Faculty of  
Sciences, Serbia

Vladimir Radivojevic, Ph.D., Ministry of Defense,  
Serbian Armed Forces, Belgrade, Serbia

Jelena Stanojevic, M.Sc., Univeristy of Nish,  
Faculty of Science, Serbia

Ernad Kahrovic, Ph.D., Department of Economic  
Sciences, State University of Novi Pazar, Serbia

### Lector

VLADIMIR IVANOVIĆ

### Prepress & Cover:

MILAN D. RANDJELOVIĆ

### Address:

“EKONOMIKA”, Society of Economists  
18000 Nis, Maksima Gorkog 5/36

Phone: +381 (0)18 4245 763; 211 443  
e-mail: zoki@medianis.net; ekonomika@sbb.rs  
WEB: <http://www.ekonomika.org.rs>

Bank Account: 160-19452-17

### Printed by:

“MEDIVEST”

18000 Niš

Copies: 200



## САДРЖАЈ / CONTENT

### ОРИГИНАЛНИ НАУЧНИ РАДОВИ / ORIGINAL SCIENTIFIC ARTICLE

<b>Marija Petrović-Randelović, Snežana Radukić, Zorana Kostić</b>	
FOREIGN DIRECT INVESTMENT, ECONOMIC SOVEREIGNTY AND TECHNOLOGY TRANSFER IN THE CONTEXT OF SUSTAINABLE DEVELOPMENT .....	1
СТРАНЕ ДИРЕКТНЕ ИНВЕСТИЦИЈЕ, ЕКОНОМСКА СУВЕРЕНОСТ И ТРАНСФЕР ТЕХНОЛОГИЈЕ У КОНТЕКТУ ОДРЖИВОГ РАЗВОЈА ...	2
<b>Milan Veljković, Snežana Živković</b>	
ENVIRONMENTAL AWARENESS AND WELL-BEING AS FACTORS OF SUSTAINABLE DEVELOPMENT .....	11
ЕКОЛОШКА СВЕСТ И БЛАГОСТАЊЕ КАО ФАКТОРИ ОДРЖИВОГ РАЗВОЈА .....	11

### ПРЕГЛЕДНИ РАДОВИ / SCIENTIFIC REVIEW ARTICLE

<b>Miloš Krstić</b>	
DIMENSIONS OF SUSTAINABLE OF DEVELOPMENT .....	19
ДИМЕНЗИЈЕ ОДРЖИВОГ РАЗВОЈА .....	19
<b>Milan Marković</b>	
ORGANIC AGRICULTURE AS A FORM OF SUSTAINABLE AGRICULTURAL DEVELOPMENT OF SERBIA .....	29
ОРГАНСКА ПОЉОПРИВРЕДА КАО ОБЛИК ОДРЖИВОГ РАЗВОЈА ПОЉОПРИВРЕДЕ СРБИЈЕ .....	29
<b>Јелена Станковић</b>	
GREEN MARKETING AND GREEN PRODUCT .....	37
ЗЕЛЕНИ МАРКЕТИНГ И ЗЕЛЕНИ ПРОИЗВОД .....	37



**Marija Petrović-Randelović<sup>1</sup>****Snežana Radukić<sup>2</sup>****Zorana Kostić<sup>3</sup>***University of Niš, Faculty of Economics*

P. 1-12

ORIGINAL SCIENTIFIC ARTICLE

Received: November, 30, 2018

Accepted: December, 15, 2018

## FOREIGN DIRECT INVESTMENT, ECONOMIC SOVEREIGNTY AND TECHNOLOGY TRANSFER IN THE CONTEXT OF SUSTAINABLE DEVELOPMENT

### Abstract

*The special attention in this paper is paid to the analysis of the relationship between foreign direct investment, economic sovereignty and technological dependence of the countries in the context of sustainable development. One of the most serious consequences resulting from the entry of foreign direct investment into the host country is, surely, the possible danger of endangering the national sovereignty. This danger is even greater if a country is technologically dependent and socially divided. In general, the economic sovereignty is one of the most important components of the national sovereignty. The concentration of power, economic, political and financial, in multinational companies, provides the opportunity for them to control the economic and social life of the host country, through direct investments.*

*The purpose of the paper is to identify the negative effects of foreign direct investment on the economic sovereignty of national economies through the role of the multinational companies in developing the economic structure and achieving the development priorities of the host country. The paper highlights various aspects of the technological dependence of the host country, due to the technology transfer is often realized through foreign direct investment. Therefore, in order to achieve sustainable development and the preservation of the national and the economic sovereignty, most developing countries take measures to control the activities of multinational companies.*

**Key words:** *sustainable development, foreign direct investment, economic sovereignty, technology transfer, multinational companies<sup>4</sup>*

**JEL classification: F230, O330**

---

<sup>1</sup> marija.petrovic-randjelovic@eknfak.ni.ac.rs

<sup>2</sup> snezana.radukic@eknfak.ni.ac.rs

<sup>3</sup> zoksinis@gmail.com

<sup>4</sup> The paper is part of the Projects No. 179066 and No. 44007 funded by the Ministry of Education, Science, and Technological Development of the Republic of Serbia.

## СТРАНЕ ДИРЕКТНЕ ИНВЕСТИЦИЈЕ, ЕКОНОМСКА СУВЕРЕНОСТ И ТРАНСФЕР ТЕХНОЛОГИЈЕ У КОНТЕКТУ ОДРЖИВОГ РАЗВОЈА

### Апстракт

*Посебна пажња у раду је посвећена анализи везе између страних директних инвестиција, економске суверености и технолошке зависности земаља у контексту одрживог развоја. Једна од најозбиљнијих последица која настаје уласком страних директних инвестиција у земљу домаћина је, свакако, евентуална опасност од угрожавања националног суверенитета. Та опасност је утолико већа, уколико је нека земља технолошки зависна и друштвено подељена. Економски суверенитет је једна од најзначајнијих компоненти националног суверенитета уопште. Концентрација економске, политичке и финансијске моћи у мултинационалним компанијама пружа могућност да оне, преко директних инвестиција, ставе под контролу привредни и друштвени живот земље домаћина.*

*Сврха рада је идентификовање негативних ефеката страних директних инвестиција на економски суверенитет националних економија преко улоге мултинационалних компанија у развоју привредне структуре и остваривању развојних приоритета земље домаћина. У раду се истичу различити аспекти технолошке зависности земље домаћина, јер се најчешће преко страних директних инвестиција остварује трансфер технологије. Зато је у циљу остваривања одрживог развоја и очувања националног и економског суверенитета, већина земаља у развоју предузела мере контроле активности мултинационалних корпорација.*

**Кључне речи:** одрживи развој, стране директне инвестиције, економска сувереност, трансфер технологије, мултинационалне компаније

### Introduction

Foreign direct investment (FDI) is a versatile concept due to it plays an important role in restricting the country's economic sovereignty and causing technological dependence. There are many aspects related to this issue that need to be carefully examined. The existence of spillover efficiency benefits to host country economies from foreign direct investment is well documented in the literature. The determinants of the size and scope of the spillover benefits have also been studied, but they are not as clearly and consistently documented as the existence and magnitude of the relevant externalities (Blomström, Kokko, & Globerman, 2001, p. 34-65).

"Foreign Direct Investment is expected to generate technology spillovers to indigenous firms in transition economies. The magnitude of the spillover effect depends on the characteristics of incoming foreign direct investment and of the recipient local firm. More specifically, spillovers vary with the measure of foreign presence used and are influenced by the recipient firm's size, its ownership structure, and its trade orientation" (Sinani, & Meyer, 2004, p. 445). Some studies show that if externalities are large, a developing country never expropriates foreign assets, and behaves as under perfect enforcement of foreigners' property rights. If externalities are absent, a developing

country always expropriates foreign assets and, then, there are no capital flows in equilibrium. If externalities are of a medium size, there are scarce capital flows from rich to poor nations (Maliar, Maliar, & Sebastián, 2008).

The overall benefits of FDI on for developing countries are well documented. Given the appropriate host country policies and the level of development, some studies show that FDI can improve environmental and social conditions in the hosting country by transferring cleaner technologies and leading to more socially responsible corporate policies. In addition, FDI can create more competitive business environment and enhance enterprise development (Organisation for Economic Co-operation and Development, 2002). Although the positive effects of FDI are multiple, the paper emphasizes the fact that it is also a source of negative impacts. There is evidence that:

- productivity of domestic firms decrease when FDI increases (Torlak, 2004; Gerschewski, 2013);
- unemployment can increase based on the fact that foreign companies using new technologies and that they are looking to use local cheap resources;
- that knowledge transfer from multinational enterprises is usually directed to local suppliers or customers, and prevention of technology leak to local competitors is achieved usually through intellectual property protection (Bayar, & Gavriletea, 2018).

“The empirical findings, by and large, suggest that lower growth performance is evident with the association of high government debt through foreign investment. In a nutshell, over borrowing of public finance would crowd out private investment and hence stifle economic growth” (Tan, & Ismail, 2015).

If the country is more developed country and higher dependence on foreign capital, it will lead to greater ability of capital owners to manage the economic development of this country. Economic sovereignty, as one of the most important components of national sovereignty, refers to the power or national governments to make decisions independently of those made by other governments.

The paper proceeds as follows. In the next section, we present and discuss an economic sovereignty of the national economies in the context of sustainable development. The third section summarizes and assesses the available empirical evidence bearing upon the role of multinational companies in technology transfer and foreign direct investment. Finally, we give concluding remarks.

### **Economic sovereignty of the national economies and sustainable development**

International investment law can be criticized for its understanding of sovereignty. Some articles define sovereignty based on a host state population to economic self-determination. The establishment of a different perspective on sovereignty in international investment law highlights the need for an alternative understanding of this term (Guntrip, 2016).

Dependent development implies a development that does not contribute to the strengthening of internal development factors and, on this basis, to independent

development, on the contrary, it strengthens the dependence on the external factors of development. The essence of the dependence concept is the fact that the development of the national economy is subordinate to the terms and conditions of another economy. The degree of dependency is growing parallel with the increasing of the developmental differences among countries. Today, a significant part of the world's product and population is located in the low-productivity regions, but smaller part of the global foreign investments is oriented in these regions (Obstfeld & Taylor, 2002, p. 60).

Based on the theory of sovereignty, partnerships between host country, governments and multinational companies can minimize the loss of national sovereignty, but this can only be achieved against a backdrop of economic, societal and political stability and cooperation (Bezuidenhout, & Kleynhans, 2015).

Foreign direct investors base their decisions on cost savings. This savings is reflected in lower labor costs of approximate quality in relation to the domicile country, in lower financing costs and in lower fiscal liabilities (Čaušević, 2004, p. 83). More favorable environment for attracting foreign investors has countries with larger population and lower wages. Also, the level of foreign direct investment depends on the degree of the developed infrastructure and the state legal institutions. With the strengthening of the tax competition between developing countries, the differences in the structure of tax systems are reduced. Different tax exemptions for foreign direct investments are introduced in the form of exemption from corporate income tax, customs duties and taxes on raw materials intended for export, in order to increase employment. Higher employment rates enable the growth of effective demand and an increase the tax base due to increased purchasing power. Tax on the final consumption is paid by consumers and this is the most important source of funding for developing countries' budgets. This fiscal system contributes to the unfair fiscal burden of the population and rapidly increases social differences.

One of the most serious consequences resulting from the entry of foreign direct investments into the host country is, surely, the possible danger of endangerment the national sovereignty, both economically and politically, and this danger is even greater if a country is technologically dependent and socially divided.

"The economic sovereignty is one of the most important components of the national sovereignty in general. The economic sovereignty present the unlimited right of every country to decide on the organization of economic life within national borders and the way of establishing the economic relations with foreign countries. This includes, among other things, the freedom to design the economic system, the free use of natural resources, the establishment of the foreign trade and foreign exchange system, and the regulation of the business activities of the domestic residents abroad and foreign residents in the country" (Jovanović-Gavrilović, 1994, p. 116).

In the context of international investment agreements and trade, sovereignty enables a state to decide whether or not, depending on its own perceived interests, to allow foreign nationals or companies to establish or acquire enterprises, or accept investment within its territory (Al-Adba, 2014).

The concentration of power, economic, political, and financial, in large business entities, such as multinational companies, provides them the opportunity to control the economic environment, social life of the host country, and thereby violate the sovereign rights of these countries, often through direct investment. In addition, while states still have power *de jure* in the international system, and within their own country,

multinational companies have power *de facto* both in the international system and in individual states (Kapfer, 2006).

Bearing in mind that the primary motive for foreign direct investment is profit maximization, it is quite clear that multinational companies are already trying to achieve their economic, political and strategic development goals, rather than to contribute to the stable development and social progress of the host country. In such cases, the objectives of foreign investors, and the development goals of the host country, are confronted. If the country is more developed country and higher dependence on foreign capital, it will lead to greater ability of capital owners to manage the economic development of this country. The multinational companies have the ability to redirect the development policy of the host country, as well as its economic and foreign trade structure, in their favor.

A negative impact on the development of the economic structure and the achievement of the development priorities of the host country is achieved by direct investment in those sectors of the host country's economy that are of primary importance for achieving the goals of their global strategies. Thus, to a large extent, the development of the underdeveloped countries is subject to the interests of the large and powerful, breaks down the economic integrity and increases economic dependence. However, in the extreme case, the negative economic effects of foreign direct investment in the host country may be less significant than the possible political consequences, which arise from the limitation of space for independent action.

In order to protect and realize the national development priorities, as well as to preserve national and economic sovereignty, most developing countries have taken measures to control the activities of multinational companies. These control measures range from controlling activities in the vital sectors of the country, prescribing rules for their behavior, developing a new cooperation forms with the foreign investors (primarily joint venture development), as well as coordination and harmonization of the national regimes and policies to the foreign capital between developing countries, within regional and sub-regional organizations and institutions.

### **The role of multinational companies in technology transfer and foreign direct investment**

It is often emphasized that more developed countries among developing countries can control the activities of multinational companies, and encourage the behavior of foreign investors to achieve national interests. The multinational companies, in fear of possible nationalization, choose the location for their activities where the negotiating position of the selected country is weaker. In many countries (for example, in South Korea), the political motive was crucial for the location of foreign direct investment. "Guided by own interests, they want to reduce, at all costs, the possible political risks in the country in which they operate. At the same time, these companies, together with the linked government of the industrial country, give the political support to the smaller partners and local representatives" (Unković, 1980, p. 112).

Hence, the multinational companies have the negative political impact. In addition, it is often said that they are developing an intelligence network in the host country in order to get up with the situation and problems in the country, and in that way, obtain confidential information that can be used for the detriment of the host country.

In modern conditions, the technology is one of the most powerful development factors whose importance is constantly expanding. The importance of the technology is reflected in the fact that it represents a resource, but also that it creates new resources, that it is a powerful instrument for social control and that it affects on the quality of decisions that make social changes. In the developing countries, the technology is an agent for changes, and the key that opens the development.

Today, still dominates the view that the foreign direct investments represent the most efficient transfer of technology and great contribution to the sustainable development of the host country (more about the concept of sustainable development see: Kates, Parris, & Leiserowitz, 2005). The accepted technology has influenced and shaped the economic and social structure of the host country. The special attention in analyzing the potential negative effects of the foreign direct investments belongs to the adequacy of this technology from a sustainable aspect. Namely, from the perspective of developed countries, the modern technology can represent a key factor for achieving further progress, but not necessarily the best solution for the underdeveloped countries.

*Firstly*, the transfer of the modern technology through foreign direct investments allows the efficient technological solutions for the host country, but the basic defect of this process is reflected in creating a dependence on the developed world. Many authors point out that the transfer of technology through foreign direct investments, by multinational companies, follows the product life-cycle theory. Such a transfer of technology, not only reduces the lag of developing countries, but rather strengthens the existing state and deepens the technological gap between the developed and underdeveloped countries.

*Secondly*, during the technology transfer, the less attention is paid to the technological needs of the host country. The technology that is transferred through foreign direct investments is a reflection of the environment where it was created, since it is adapted to the material and social relations of that environment, their development advantages, and the ways for solving their development problems.

“Namely, the inadequacy of technology that was created in the conditions of developed countries, when it is transferred to developing countries, is reflected in the following facts:

- this is too capital intensive and high automation technology (unemployment, as one of the most important problems, is not solved);
- transferred technology requires a qualified labor force (not the one that is available in developing countries);
- technology is based on synthetic materials rather than raw materials which are available in developing countries;
- the offered technology is too expensive;
- the problem of independence is emphasized” (Senečić, 1982, p. 89).

In addition, the foreign direct investments have the exclusive focus on the certain segments of the economy in order to exploit capital-intensive technology, as well as restriction of the technology usage for the host country development, which lead to the creation of a dual economic structure. Given the fact that such technology replaces live labor and increases the role of indirect labor, social problems in the host country are deepening. This is because the technology owners are motivated by profit maximization, more than developing host countries.

By internal transfer of technology, technology owners exploit their advantages abroad and achieve their development goals. The product differentiation policy does not encourage the development of innovative technological capabilities in the host country. This leads to an additional social stratification in the host country, due to the policy of product diversification<sup>5</sup> is aimed at meeting the needs of the society with high purchasing power, while ignoring the needs of the vast majority of the population.

For the host country, selection of the appropriate technology represents the key to further progress, in the conditions when science, technology and knowledge are important factors of economic development. UNIDO considers that appropriate technology contributes the most to the achievement of the development goals, in economic and social terms. It is a technology that increases social wealth, contains elements of the production process, and includes all complementary aspects of the organization and management (UNIDO, 1979).

The imported technology should contribute to the development of the domestic technological potentials and capabilities, as conditions for reducing technological dependence and achieving overall economic development. For instance, Japan has taken advantage of the imported technology and on this basis developed research potentials based on adaptation to local conditions and innovations. In addition, the logic for the import of technology followed the motto: if there is more expensive import of technology, the more effort should be invested in research activities. However, in the most developing countries, this connection is reversed: more expensive import of technology leads to less investments in the development of domestic research.

In order to achieve the most favorable effects of the technology transfer through foreign direct investment, it is necessary to ensure the complementarity of this transfer with the conditions in the host country. The low level of the economic development, as well as the insufficiently built economic structure and inadequate technological development policy, logically create the conditions for the transfer of labor-intensive technologies that require low-skilled labor and a small volume of production. In this way, the transferred technology would not contribute to achieving the development priorities of the host country. On the contrary, it would strengthen the dependence on external factors. Under such assumptions, the importance of the modern technology transfer cannot be denied, but under the conditions that it contributes to the efficient use of all material, natural and intellectual capacities of the host country and intensification of its innovative capabilities.

Technology adaptation to the local conditions in the host country can influence on the achievement of positive results in the short term, while in the long run, it should develop its own creative abilities and redirect scientific research in accordance with the needs and interests of the developing countries. On the other hand, the host country should focus all its efforts on more intensive technology and development infrastructure, in order to achieve favorable results from imported technology. The level of the technological competence determines the type of technology that corresponds to the achieved development level of the host country.

---

<sup>5</sup> Product differentiation is not based on the creation of new products, but on the modification of existing products, which includes minor changes in shape, taste and use, which stimulate demand and create the impression of modernization.

Another aspect of the technological dependence, which is worth mentioning, is that the commercial transfer of the technology through the foreign direct investments, in international terms, is accompanied by the transfer of the entire technological and production processes.

Transfer of the packaged technological process is attractive and it has positive effects on the development of the host country, because it is accompanied by the provision of services related to the technological process, transfer of the production techniques, the managerial capabilities, marketing, etc. However, on the other hand, packaged technology disables the host country to get familiar with all its parts and to develop its technological capabilities. They do not receive complete information about the production process, but only those that are necessary for the effective execution of individual operations.

For the technology commercialization by the multinational companies, it is characteristic that the technology transfer takes place through internal channels, i.e. from a parent company to branch offices abroad. Thus, in a certain way, the highest level of control is achieved, since the internal technology transfer allows not to transfer knowledge about the entire technological process, but only the part that is necessary to perform the operations abroad. This avoids the danger of discovering the specific advantages of the multinational companies, as the main stimulus for commercializing technology through foreign direct investments.

Some policies could promote technology transfer but deter technology diffusion, or promote technology diffusion but deter technology transfer. With respect to the contribution of foreign direct investment, multinational companies, as key entities, usually lose from further horizontal diffusion of their technologies and should be expected to take actions that thwart that process. On the other hand, that technology transfer to local suppliers is compatible for multinational companies and some empirical evidence indicates that vertical linkages between multinationals and their local suppliers play a crucial role in the industrial development of host countries (Glass, Saggi, Dutt, & Ros, 2008).

The multinational companies can restrict the diffusion of technology by various restrictive clauses, thereby preventing the spread of technological knowledge in the host country. These limitations range in a wide range, and the most significant, from the aspect of developing countries, are those related to the export prevention.

This often refers to the export bans in general, the export bans to certain countries, the export restriction to certain countries, through export licenses, export quotas, export price controls, export licenses only for certain companies, impose restrictions on the use of trademarks during export. In this way, the conditions for the autonomous development of the host country are not created, nor create the potential for own scientific research work, which today appears as a source of progress and a factor of structural changes.

In order to reduce technological dependence, the host countries, that follow the export-oriented strategy for economic development, should focus efforts on establish the balance between technology imports and the development of their own technological potentials. The most favorable development effects can be expected if the acquisition of the technological knowledge through labor is complemented by own innovations and adjustments to local opportunities.

## Conclusion

The paper corroborates the hypothesis that technology is transferred internationally through foreign direct investments by the multinational companies, and provides the evidence of limiting the economic sovereignty of the national economies in the context of sustainable development. How domestic companies react on presence the foreign direct investments might depend on a whole range of country, industry, and firm specific factors.

Presented empirical evidence highlights the view that the foreign direct investments represent the most efficient channel for technology transfer and they have great contribution to the sustainable development of the host country. Some policies could promote technology transfer but deter technology diffusion, or promote technology diffusion but deter technology transfer.

One of the most serious consequences resulting from the entry of foreign direct investments into the host country is the possible danger of endangerment the national sovereignty, both economically and politically. This danger is even greater if the country is technologically dependent and socially divided.

Finally, the arguments presented in this paper suggest that foreign direct investments have considerable influence on the economic sovereignty of the countries and the technology transfer. It is therefore important to understand and address the consequences which slow down the sustainable development. The paper can be interesting and relevant for local and international readers due to it draws attention to these important issues.

## References

- Al-Adba, N. (2014). The Limitation of State Sovereignty in Hosting Foreign Investments and the Role of Investor-State Arbitration to Rebalance the Investment Relationship. Doctoral dissertation. University of Manchester. United Kingdom.
- Bayar, Y., & Gavriletea, M. D. (2018). Foreign Direct Investment Inflows and Financial Development in Central and Eastern European Union Countries: A Panel Cointegration and Causality. *International Journal of Financial Studies*, 6(2), 1-13.
- Bezuidenhout, H., & Kleynhans, E. (2015) Implications of foreign direct investment for national sovereignty: The Wal-Mart/Massmart merger as an illustration. *South African Journal of International Affairs*, 22:1, 93-110. doi: 10.1080/10220461.2015.1009155
- Blomström, M., Kokko, A., & Globerman, S. (2001). The determinants of host country spillovers from foreign direct investment: a review and synthesis of the literature. In *Inward Investment Technological Change and Growth* (pp. 34-65). Palgrave Macmillan, London.
- Čaušević, F. (2004). Finansijska globalizacija i ekonomski suverenitet. *Sociologija*, XLVI(1), 71-95.
- Gerschewski, S. (2013). Do local firms benefit from foreign direct investment? An analysis of spillover effects in developing countries. *Asian Social Science*, 9(4), 67-76.

- Glass, A. J., Saggi, K., Dutt, A., & Ros, J. (2008). The role of foreign direct investment in international technology transfer. *International handbook of development economics*, 2, 137-149.
- Guntrip, E. (2016). Self-determination and foreign direct investment: reimagining sovereignty in international investment law. *International & Comparative Law Quarterly*, 65(4), 829-857.
- Jovanović-Gavrilović, P. (1994). Međunarodno poslovno finansiranje. Ekonomski fakultet Beograd Univerziteta u Beogradu, Beograd.
- Kapfer, S. (2006). Multinational Corporations and the Erosion of State Sovereignty. Brigham Young University.
- Kates, R. W., Parris, T. M., & Leiserowitz, A. A. (2005). What is sustainable development? Goals, indicators, values, and practice. *Environment: science and policy for sustainable development*, 47(3), 8-21.
- Maliar, L., Maliar, S., & Sebastián, F. P. (2008). Sovereign risk, FDI spillovers, and growth. *Review of International Economics*, 16(3), 463-477.
- Obstfeld, M., & Taylor, A. M. (2002). Globalization and Capital Markets. National Bureau of Economic Research, Working Paper Series.
- Organisation for Economic Co-operation and Development. (2002). Foreign direct investment for development: maximising benefits, minimising costs. Organisation for Economic Co-operation and Development. France.
- Senečić, J. (1982). Viši oblici suradnje s inozemstvom. Informator, Zagreb.
- Sinani, E., & Meyer, K. E. (2004). Spillovers of technology transfer from FDI: the case of Estonia. *Journal of comparative economics*, 32(3), 445-466.
- Tan, A. L., & Ismail, N. W. (2015). Foreign Direct Investment, Sovereign Debt and Growth: Evidence for the Euro Area. *American Journal of Trade and Policy*, Vol. 2 (1), 51-58.
- Torlak, E. (2004). Foreign direct investment, technology transfer and productivity growth. Empirical evidence for Hungary, Poland, Romania, Bulgaria and the Czech Republic. In *7th Annual Conference on Global Economic Analysis*, Washington DC.
- UNIDO. (1979). Cooperation Programme of Action on Appropriate Industrial Technology. Vienna.
- Unković, S. (1980). Međunarodno kretanje kapitala i položaj Jugoslavije. Naučna knjiga, Beograd.

**Milan Veljković<sup>1</sup>****Snežana Živković<sup>2</sup>***University of Niš, Faculty of Occupational Safety*

P. 1-12

ORIGINAL SCIENTIFIC ARTICLE

Received: November, 26, 2018

Accepted: December, 18, 2018

## ENVIRONMENTAL AWARENESS AND WELL-BEING AS FACTORS OF SUSTAINABLE DEVELOPMENT<sup>3</sup>

### Abstract

*Economic growth has long been considered the primary development goal. Nevertheless, the general progress of capitalism and particularly inadequate changes in the environment affect the reorientation of the development paradigm towards sustainability, which encompasses the economic, ecological and social dimension. The fundamental purpose of this article analyzes the system of values in society that enable easier development and deployment model of sustainable development. The emphasis is put on the analysis of the ecological component of sustainable development. This article relies on a very popular branch in economic theory, ie economic analysis of subjective well-being. This theory is based on the assumption that well-being and happiness depend not only on economic factors but also on other personal factors and wider values, which can include environmental quality, for example. In the economic analysis of well-being, the consumer maximizes happiness and the environment is an important element of well-being. For this reason, the consumer, who has the right values, can be seen as a key factor in the success of the sustainable development model.*

**Keywords:** Subjective well-being, Sustainable Development, Environmental awareness

**JEL classification:** Q50, Q56

## ЕКОЛОШКА СВЕСТ И БЛАГОСТАЊЕ КАО ФАКТОРИ ОДРЖИВОГ РАЗВОЈА

### Апстракт

*Економски раст се одавно сматра примарним циљем развоја. Општи индустријски прогрес, капитализам и посебно неадекватне промјене у животној средини утицали су на преоријентацију развојне парадигме према парадигми одрживости, која обухвата економску, еколошку и социјалну димензију. Примарни циљ овог рада је да анализира систем вриједности у друштву који ће омогућити развој и примјену одрживог развоја. Нагласак*

<sup>1</sup> milan.veljkovic@znrfak.ni.ac.rs

<sup>2</sup> snezana.zivkovic@znrfak.ni.ac.rs

<sup>3</sup> Acknowledgements – The work was done within the project III-43014 financed by the Ministry of Education, Science and Technological Development of the Republic of Serbia

*је на анализи еколошке компоненте одрживог развоја. Рад је базиран на веома популарној економској теорији субјективног благостања и среће које не зависи само од економских фактора већ и од индивидуалних фактора и других вредности у које се на пример може уврстити и квалитет животне средине. У економској анализи благостања животна средина представља важан фактор субјективног благостања и среће код потрошача. Особа која поседује праве енвајроменталне вредности, која развијену еколошку свест може бити кључни фактор успеха у имплементацији модела одрживог развоја.*

**Кључне речи:** *Субјективно благостање, Одрживи развој, Еколошка свест*

## Introduction

The European and other developed economies strive to realize and introduce the model of sustainable development as much as possible. Sustainable development, which was first mentioned in the famous Brundtlandovom report of 1987, also known as "Our Common Future", is defined by three components: economic (it is necessary to ensure their own economic development), ecological (focus on sustainability of future development and reduction of environmental pollution), and social (it is necessary to ensure proper cohesion in society). Sustainable development, as a model of the economy, means satisfying the needs of the present generation, but without jeopardizing the prospects of future generations in achieving the same goal. However, the concept of sustainable development is implemented very slowly in practice. Sustainable development is a new techno-economic paradigm that must be based on the new values of society and consumers, with the focus being on 'sustainability'. Therefore, the basic prerequisite for the implementation of a sustainable development model (not only in its ecological but also in the economic and social component) is the existence of an appropriate value system in society. The fundamental purpose of this article is to analyze values, more precisely the system of values in society that facilitate the development and implementation of a sustainable development model. The emphasis is put on the analysis of the ecological component of sustainable development. The analysis starts with the belief that the consumer as an economic entity, besides income, also evaluates other assets that increase his prosperity and well-being. Namely, from now on, economic theory has used income (ie gross domestic product - GDP) as a measure for the economy's performance. However, the GDP ignores many aspects of ecological, social (inequality, politics, security, etc.) and other factors. There are many alternative indicators of the economy that are trying to evaluate well-being. Among them is certainly the most well known Human Development Index - HDI developed by the United Nations - UN. This article relies on a very popular branch in economic theory, ie economic analysis of subjective well-being (Stevenson and Wolfers, 2008). It is based on the assumption that well-being (as well as the overall quality of consumer life standards) depends not only on economic factors, but also on other personal factors and wider values, for example, which can include the quality of the environment as well. That is why economic analysis is a good starting point and a substitute for neoclassical economic thinking that focuses

on maximizing consumption. On the other hand, in an economic analysis of well-being, the consumer maximizes well-being and the environment is an important element of well-being. The consumer is ready to use environmental products (because of the clean environment), which increases his well-being because the consumer is the foundation of successful development and implementation of sustainable economic development. For this reason, the consumer, who has the right values, can be seen as a key factor in the success of the sustainable development model.

### **The concept of sustainable development**

Sustainable development achieves a balance between the demands for quality of life (economic component), the achievement of social welfare and peace for all (social component), and demands for the preservation of environmental constituents as a natural asset to which the present and future generations (ecological constituents) depend. For the sake of achieving sustainable economic development, the focus should definitely be on sustainable productivity growth as productivity is at the heart of competitiveness. Like development, competitive advantage must also be sustainable. As such, it is longlasting and unique and can not easily replicate and imitate. It results from the implementation of such competitive modes that are unique and different from their rivals, which become sustainable over time (Porter, 2003). All countries in their strategies still take on such a development model despite the complexity of the concept of sustainable competitiveness and sustainable development and many difficulties in their understanding. The risk that the sustainable development model as a goal will only remain on paper can be reduced if there is broad support for the concept of sustainable development in society and, consequently, in politics. As an important support for progress (not just purely economic), it is also important to increase prosperity in the widest sense of the word. It is also possible to include well-being in this aspect of progress.

### **The role of subjective well-being in sustainable development**

Economic growth has been considered the primary goal of economic policy. Consequently, the performance of a particular country was traditionally balanced with the level of economic growth and development achieved (measured solely by monetary measures such as GDP), as it ensures increased income, employment, etc. (Boarini et al., 2006). On the other hand, sustainable development is a multidimensional process, which within its framework addresses many issues and problems. Although economic growth is desirable, the question is how much growth can be achieved, can growth be controlled and how (Van den Bergh, 2000). The goal of sustainable development is not to grow at any cost, nor increase GDP at all costs, but its fundamental goal is to increase prosperity and well-being. Well-being can not be measured solely by standard methods of GDP measurement, as Stiglitz et al. (2009) and OECD (2005) point out. Such conclusions have opened up the space to develop alternative welfare measures based on welfare in the country. Some of the most famous alternative development indicators are, among others, The Measure of Economic Welfare - The Index of Sustainable Economic

Welfare - ISEW, The Human Development Index - HDI, The Ecological Footprint - EF, etc. Ensuring sustainable development in the background intuitively carries the time dimension, ie it speaks of the ability of the economy to maintain well-being over time. Wealth in the country is closely linked to the level of satisfaction and well-being of individuals who live in a certain area for which economics of happiness, also known as happynomics provides an excellent foundation for the study of sustainable development. Economics of happiness offers good alternatives for measuring satisfaction and well-being of people, so it is no surprise that the last two developed alternative indicators: The Happiness Index of the Planet and Gross National Happiness largely rely on happiness as an important determinant of well-being and the measure of progress. Namely, revenue is not as important for people's happiness, ie economic growth does not increase the level of well-being. In the seventies Easterlin showed that higher incomes did not make people happier. This has caused a real small revolution and raises the sound of new directions in economic theory that warn that the happiness of individuals depends on many factors (Easterlin, 2005.). There are, therefore, other factors such as democracy, human rights, health, the proper allocation of resources and others that increase the happiness of revenue growth (Easterlin, 2004). There are many ways to influence one's happiness; For this very reason, people occasionally need to learn to be happy or to find a magic formula of happiness. Nevertheless, the absence of a clear and always functional way of achieving happiness should not limit the research that deals with this issue. In principle, happiness research from the economic aspect can be roughly divided into macro and micro approach. Macro approach to happiness research most often refers to comparisons of happiness and economic growth in a particular country. The most important conclusions can be summarized as follows: If fortune and income are compared at a certain time, people with more income are more prosperous than those with less income. But if income increases through time and life cycle, happiness does not follow such a positive path (Easterlin, 2004). The second approach to happiness research is that at a micro level. Indeed, if the increase in income (or GDP) does not increase happiness, the question is positively what then influences the increase in happiness. The microeconomic approach to happiness most commonly refers to subjective measures: ask respondents of assessment of subjective well-being and life satisfaction (Conceicao and Bandura, 2008) on certain charts. It should be noted that micro analysis of happiness does not say that economic factors (such as income) are not important at all, but emphasize the very strong influence of other uneconomic factors of well-being, such as social capital, loyalty, trust, motivation and the like (Frey and Stutzer, 2002). Although advances have been progressively advanced to the present day of research, they are still limited to certain problems, such as the lack of a single measure that would suit everyone (White, 2006), or the fact that happiness is not a static variable. Furthermore, it is sometimes difficult to identify all the determinants of happiness because it can be viewed as an attitude/feeling of an individual but also as a characteristic of a group, community, society, nation, state and so on (White, 2006). The main problem of micro access to happiness research can be summed up as follows: happiness determinants are constantly changing, and subjective satisfaction (ie welfare in the broader sense) varies over time to each individual. However, the problems that arise when measuring happiness do not diminish the importance of such research. The happiness of a citizen should really be the center of economic and other interests of the state: happy people are

more optimistic, better and more productive workers, more social and entrepreneurial, tend to be more successful in private, economic and social activities, are more likely to social interaction and are characterized as happy by friends, family and superiors (Frey and Stutzer, 2002). Therefore, decision makers in the state really need to be able to find out what makes people happy and which factors ultimately affect the happiness and well-being of citizens.

### **Environmental awareness**

Numerous attempts have been made over conceptual and operative definitions of the notion of ecological awareness during the last decades. This theme dealt with and other scientific disciplines: first of all, psychology, sociology, political science, environmental studies and business research. Various measuring instruments have been used, which vary considerably depending on the extent to which various ecological issues (population control, natural resources, energy savings, etc.) and depending on the implicit or explicit assumptions of ecological awareness components are used. The notion of ecological consciousness to most people is intuitively clear and understandable, but one can conclude that there is no generally accepted clear definition or even clearly defined terminology. In the literature, different terms can be found for the same term, such as environmental awareness, environmental consciousness, environmental concern. In some cases it does not even make a difference between attitude and behavior, so the terms are equated with terms such as: environmental responsibility and environmental behavior. Ecological awareness can be broadly defined as an attitude that is related to the consequences of human behavior on the environment. Starting from the usual definition of attitude, ecological awareness is a pretext for reacting to ecological problems in a special way (Rosenberg and Hoyland, 1960). It is an element of an individual system of values and beliefs and is part of the social consciousness. Ecological awareness can be the predecessor of ecologically oriented behavior. However, even when people are ecologically aware, they do not necessarily have to behave ecologically. Ecological awareness is, therefore, the first step towards becoming a green consumer. If ecological awareness (as an attitude) is supported by real ecologically oriented behavior, ecological responsibility can also be said. In other words, ecological responsibility consists of a positively oriented approach to the environment, and an appropriate ecologically relevant behavior. In order to explain the relationship between ecological awareness and behavior, psychologists have developed a number of models that try to explain what ecological awareness is all about. A three component model of attitude can be applied to illustrate these factors. Ecological awareness, therefore, is a multidimensional term with a cognitive, affective and conative component (Dembkowski and Hanmer-Lloyd, 1994). Some authors have studied the individual impact of each of these components, while others think that their mutual influence is too strong and therefore they have developed instrumental instruments that use all three components simultaneously without a clear delineation between them. In short, the cognitive component consists of what people think of someone or something (whether they are right or not). The emotional component consists of feelings towards some or something, while the third intentional component is intended to act in a certain way and is sometimes referred to as a behavioral component

(Fraj and Martinez, 2007). According to Stone et al. (1995) it is possible to say that the first two components form and direct the third behavioral component. If consumers are eco-oriented, ie if they choose and use green products, they will determine how they will produce. In this way, the existence of green consumers is crucial to the successful development of a sustainable economy (Heiskanen and Pantzar, 1997, Hobson, 2002). This implies the existence of such a consumer whose ecological dimension is a value and thus increases his happiness and well-being. Cogoy (1999), among the first in the macroeconomic context, touched on the issue of non standard consumer, ie consumer who did not maximize consumption, but its impact on spending on economic growth and development and the ability to develop a sustainable economy. First of all, ecological aspects affect the happiness of an individual because they easily enter and influence the equation of happiness through his personal values. Finally, of course, the quality of the environment and ecological issues affect the general social climate, institutional changes (for example, the Kyoto Agreement) and political interests, thus affecting consumer well-being and the third, that is, the social determinant of well-being.

## Conclusion

Economic growth is considered a primary goal of development. Nevertheless, general progress of capitalism and in particular inappropriate changes in the environment affects the reorientation of the development paradigm towards sustainability, which encompasses the economic, ecological and social dimension. Sustainable development model was accepted by politicians and national development strategies, and 'sustainability' has already become a vanguard. However, the implementation of the model itself lags behind the desired plan due to several obstacles: complexity, lack of understanding, costs, lack of political support for undesirable (expensive) changes and so on. The model can be successfully implemented only if the public is aware of its dimensions or values of the components of sustainable development and is ready to support the model in its spending structure, which encourages companies to shift to sustainability. This also implies that economic entities, consumers and companies, generally, in addition to the economic component of development, are also valued ecologically and socially. Consequently, progress is no longer appropriate to measure within the economic dimensions (GDP) but new measures need to be used; perhaps well-being that includes all dimensions of sustainable development. The article focuses on the ecological aspects of sustainable development; however, given the multidisciplinary nature of the concept of sustainability as well as the socio-economic changes facing the country, the government can have a significant impact on all aspects of sustainable development, not just in ecological terms.

## References

- Boarini, R., Johansson, Å., & d'Ercole, M. M. (2006). Alternative measures of well-being.
- Conceição, P., & Bandura, R. (2008). Measuring subjective wellbeing: A summary review of the literature. *United nations development programme (UNDP) development studies, working paper.*

- Cogoy, M. (1999). The consumer as a social and environmental actor. *Ecological Economics*, 28(3), 385-398.
- Dembkowski, S., & Hanmer Lloyd, S. (1994). The environmental value attitude system model: A framework to guide the understanding of environmentally conscious consumer behaviour. *Journal of marketing management*, 10(7), 593-603.
- Easterlin, R. A. (2004). The economics of happiness. *Daedalus*, 133(2), 26-33.
- Easterlin, R. A. (2005). *Building a better theory of well-being*(pp. 29-64). Economics and Happiness. Framing the Analysis. Oxford: Oxford University Press.
- Fraj, E., & Martinez, E. (2007). Ecological consumer behaviour: an empirical analysis. *International journal of consumer studies*, 31(1), 26-33.
- Frey, B. S., & Stutzer, A. (2002). » Happiness and Economics: How the Economy and Institutions Affect Well-Being «. *Princeton, NJ*.
- Heiskanen, E., & Pantzar, M. (1997). Toward sustainable consumption: Two new perspectives. *Journal of Consumer policy*, 20(4), 409-442.
- Hobson, K. (2002). Competing discourses of sustainable consumption: Does the 'rationalisation of lifestyles' make sense?. *Environmental politics*, 11(2), 95-120.
- Porter, M. (2003). The economic performance of regions. *Regional studies*, 37(6-7), 549-578.
- Rosenberg, M. J. (1960). Cognitive, affective, and behavioral components of attitudes. *Attitude organization and change*.
- Stiglitz, J. E., Sen, A., & Fitoussi, J. P. (2009). Measurement of economic performance and social progress.
- Stevenson, B., & Wolfers, J. (2008). *Economic growth and subjective well-being: reassessing the Easterlin paradox* (No. w14282). National Bureau of Economic Research.
- Stone, G., Barnes, J. H., & Montgomery, C. (1995). Ecoscale: a scale for the measurement of environmentally responsible consumers. *Psychology & Marketing*, 12(7), 595-612.
- Van Den Bergh, J. (2000). Ecological economics: Themes, approaches and differences with environmental economics. *Papers Discusión*.
- White, N. P. (2008). *A brief history of happiness*. John Wiley & Sons.



**Miloš Krstić<sup>1</sup>***University of Nis,  
Faculty of sciences and mathematics*

P. 1-12

SCIENTIFIC REVIEW ARTICLE

Received: October, 18, 2018

Accepted: November, 22, 2018

## DIMENSIONS OF SUSTAINABLE OF DEVELOPMENT<sup>2</sup>

### Abstract

*Sustainable development dimensions are economic sustainability, environmental sustainability and social sustainability. The social dimension of sustainable development implies that one can not say that the development is sustainable if it is not equitable or if it does not meet the needs of the majority of the population on Earth. Sustainable social development is integrated process of building human capacities in the sense of: combating poverty, creating productive employment of people, promoting social unification, and effective and all-available health care and education, crime prevention and negative social phenomena, democratization of all forms of social life and change of consumer habits and needs. Environmental protection - ecological dimension - means acquiring such knowledge that would enable the benefits of a healthy environment to be appreciated, maintained and developed. The above mentioned dimensions (economic, social and ecological) of sustainable development express at the same time the basic starting points of this idea: firstly, human beings have the right to live (have) healthy and productive life, in harmony with nature; Secondly, states have the sovereign right to use natural resources in accordance with their concept of development, but in a way that does not damage the environment of other countries, and third, in order to solve their ecological problems more efficient, international cooperation is necessary.*

**Key words:** *sustainable development, ecological challenges, social risks, ecological economy, poverty and social exclusion*

**JEL classification: Q57**

## ДИМЕНЗИЈЕ ОДРЖИВОГ РАЗВОЈА

### Апстракт

*Димензије одрживог развоја су економска, еколошка и социјална. Социјална димензија одрживог развоја подразумева да се за развој не може рећи да је одржив ако није праведан или ако не задовољава потребе већине становника на Земљи. Одрживи друштвени развој је интегрисани процес изградње људских способности у смислу: борбе против сиромаштва, могућности за продуктивно запошљавања људи, као и пружања ефикасне и свима доступне здравствене заштите и образовања, превенције криминала и негативних друштвених појава. Заштита животне средине - еколошка димензија - под-*

<sup>1</sup> krsticmilo3@gmail.com

<sup>2</sup> Project: "Improving competitiveness of public and private sector by networking competences in the process of european integrations of Serbia (MESTD - 179066)".

*разумева стицање таквог знања које би омогућило да се предности здраве животне средине „цене“, одржавају и развијају. Наведене димензије (економска, социјална и еколошка) изражавају основна полазишта концепта одрживог развоја: прво, људска бића имају право на здрав и продуктиван живот у хармонији са природом; друго, државе имају суверено право да користе природна богатства сходно својој концепцији развоја, али на начин да тиме не штете животnoj средини других земаља и треће, у циљу боље решавања еколошких проблема је неопходна међународна сарадња.*

**Кључне речи:** *одрживи развој, еколошки изазови, социјални ризици, еколошка економија, сиромаштво и социјална искљученост*

## Introduction

From socio-ecological point of view, the character of changes in scientific and technological civilization is closely related to the relationship between people their environment. Determination of this relationship also includes the need to harmonize different aspects of social, economic and technological development with the criteria of ecological optimum. Unlike the aggressive and imperial relation of man and society towards nature which leads to the exhaustion of nature and the dehumanization of society, in the post-industrial and future "ecological" society, the need for maintaining and "creating" nature (adaptation of nature and culture) will appear. The new ecological paradigm of sustainable development also becomes general paradigm of the development.

In the first part of the paper we will point out on the term or definition and indicators of the sustainable development phenomenon . In the second part of the paper, we will expose the social aspects of sustainable development that address the various types of risks in modern society whose resolution is the assumption of sustainable economic and any other form of development. About the importance of adopting ecological values ... we will speak in the third part of the paper. At the end of the work we will give our conclusion.

### The main characteristics of the concept of sustainable development

The concept of sustainable development is the prevailing paradigm of development at the end of the second and the beginning of the third millennium. As European and also the world socio-economic development concept, the concept of sustainable development includes integral economic, technological, social and cultural development harmonized with the need for the protection and improvement of environment that enables current and future generations to meet needs and improve the quality of life. The shorter definition of sustainable development was given by American sociologist Lester Brown in 1987: "Sustainable development is a development that meets the needs of the present, and at the same time, does not jeopardize the ability of future generations to meet their needs" (World Commission on Environment and Development, 1987: 43). In this sense:

1. sustainability is critical concept.
2. sustainability is the responsibility of maintaining a human species.
3. sustainability is a complex, holistic concept.
4. sustainable development means sustainable society.
5. sustainability suggests the end of wealth of industrial society.
6. sustainable development means the end of the ideology of uncontrolled economic growth.
7. sustainable development is process in which global society lives in harmony with its environment.
8. sustainable development is inseparable from the concept of social sustainability.
9. sustainability is the concept of active participation.
10. sustainability appears on global and lokal level.
11. sustainable development is not objective, but process of reaching to better society (Hafner, 2008-2009).

The concept of sustainable development is not new and draws its roots from the period of classical economic thought in the works of Smith and Ricard (Pivasevic, Hafner, 120). However, this problem comes in the focus of the public when the world economy was shaken by problems related to oil shocks, the jump in energy prices, inflation, the scarcity of natural resources, and the rapid growth of the world's population. Economist Robert Solou points to a demand for intergenerational equilibrium in the enjoyment of natural assets so that each generation must have the same right to enjoy the benefits of nature or the environment. The development model that provides this, as Solou points out, can be considered as sustainable development (Kula, 1998). The most important definition of sustainable development is the one proposed by the Brundtland Commission: Sustainable Development is the development that satisfies the needs of the present, not endangering the ability of future generations to meet their needs (World Commission on Environment and Development, 1987). The Brundtland definition of sustainable development includes two basic concepts: (1) concept of needs and (2) concept of constraints. The first concept refers to achieving or maintaining acceptable standard of living for all people, while the other concept advocates the use of environmental capacities in accordance with the achieved level of technological development and social organization. The concept of needs is the basis for intragenerational justice, while the concept of constraint is based on intergenerational justice.

This idea of sustainable development has general character, and can serve as guide in the process of defining national and global politics. However, the report of Brunthend's Commission has at least fourfold significance:

- First, the concept of sustainable development, seen as satisfying present needs without compromising the ability of future generations to meet their own needs, highlights the evolutionary nature of this concept, that is, sustainable development is process of change in which resource exploitation, investment management, technological development and institutional change must be consistent with future, and not just with current needs.
- Secondly, the report Brunthend's Commission emphasizes the importance of international cooperation, but also points on the difficulty in achieving

this cooperation, which is most succinctly expressed attitude: „The country is one, but the world is not” (World Commission on Environment and Development, 1987).

- Third, Brundtland's Commission stressed the need for strengthening national environmental agencies, institutions and organizations.
- Fourth, Brundtland's Commission proposed the adoption of the UN Program on Sustainable Development and the holding international conference on environment and development. From the point of view of ecological management and ecological economy, sustainable development can be defined as “managing the resources of the Earth in a way that ensures their long-term quality and sufficiency”.

### **The social dimension of sustainable development**

The study of social changes that pervade our civilization and directions of their development, research quality and level of acceptance of changes, as well as consideration of resistance and social change carriers, necessarily has to do with the analysis globalization risk and uncertainty of historical processes. In this complex of global social changes, ecological changes contain the greatest potential of developmental uncertainty, anomaly, and entropy of world society. That is why contemporary world society is a kind of risk society. This is supported by the tendency of increasing manifest and latent consequences of different forms of globalization risks (natural, social, economic, ecological, etc.). Their basic characteristics are following. First, globalization risks have processual nature. Second, they are the result of complex sequences of causes and consequences associated with the chain of events. Third, globalization risks, as the name implies, express global character. Risk society requires careful attitude towards risks, their identification, control and management (Malešević, 2002, 275-6).

Because of the multitude of risk in modern times, the German sociologist Ulrich Beck's named contemporary society risky society in which exist various risks of everyday life caused by: 1) desire for wealth, thus causing environmental and technological risks, 2) impoverishment and destruction of nature, and 3) development of Global Weapons of Mass Destruction (nuclear, biological, and chemical weapons). In contemporary history, human civilization has never been in such dependence on the solution of global ecological challenges and the harmonization of relations in the human-society-nature system.

As prominent professor at the University of Michigan, Ulrich Beck in the studies “The Society of Risks” (1992) and “Ecological Paradigms in the Risks of Risks” (1995) set up the theory about the “risk society” that arises in the conditions of globalization and the overcoming of the old industrial society. The emergence of scientific technological civilization, says Beck, causes the emergence of completely new social and technological risks, until then unknown in the history of civilization. In addition to the global ecological risks that threaten the survival of mankind, the book also lists number of everyday life-threatening situations in which modern man can be found (the risks of marriage and the family - enormous number of divorces). Uncertainty of everyday life and the risks that can occur points out on the need for society manages risks, which becomes part of

modern development policy. Beck also draws attention to the importance and role of civil society institutions in regulating and reducing risk levels and managing "risk societies".

There is no doubt Beck contributed to the actualization of diverse risks (natural, economic, social, technological) as consequence of rapid scientific and technological development (Back, 2011). Beck believes that risks arise also as result of changes in people's daily lives: changes in work patterns, increasing job insecurity, decline in the influence of tradition and custom on self-identity, the collapse of traditional family forms and the democratization of personal relationships (Gidens, 2005, 73-4). The risks thus produced are working in global context. Therefore, it is of particular importance to identify risks, to control and manage risks. Monitoring natural, technical and social risk generators or risky behavior becomes the most important task of contemporary society. In this regard are efforts to define the procedures for the organization and management of risks and accidents (in the context of environmental management according to ISO 14000) with the goal of their prevention, sanctions and sanctions (Malešević, 2002-2003, 13). The risk society in the conditions of globalization becomes universal phenomenon, thus creating the concept of "global risk" (Mitić, 2000, 13). Therefore, the scientific analysis of problems arising with the emergence of risk society in the first place puts the technical dimensions of development and the application of science and technology in contemporary civilization, as well as a qualitative analysis of the trends and tendencies of the globalization process of world society.

The following global risks that perceive modern civilization are poverty and social exclusion the main problems of mankind, because at the same time they appear as developmental contradictions of developed societies and regions of the world, but also the burning problem of semi-peripheral and peripheral societies. The societies in transition, especially the Serbian society that is in the process of late transition, are also heavily burdened (Hafner, 2015).

As result of the spread and deepening of poverty in the world and its survival over a longer period of time, kind of cultural pattern of behavior and the lifestyle of people appears, the culture of poverty emerges.

The culture of poverty planted in vulnerable social groups in the least developed regions of the world but also within some developed countries with strong social inequalities. The emergence of the culture of poverty is also present in transition societies, including Serbian society (Hafner, 2007, 220). The culture of poverty includes norms and values which the poor people and social groups adhere to in their everyday life. The norms and values of the culture of poverty make the social and cultural pattern and lifestyle of the poor.

The inability of individuals and social groups to participate in important social processes of work and economy, political processes, education, health care as well as institutions and organizations that crystallize these processes is the essence of the problem of social exclusion. As the form of human separation and discrimination, social exclusion is general cause of poverty. Conversely, poverty essentially causes social exclusion.

The connection between poverty and social exclusion of people and social groups is more evident in the consequences that these phenomena create in our country and in the world. The inability to educate and to access to elite educational institutions causes: difficult employment, insufficient participation or even complete absence in political

and social life, maintaining a large social distance towards poor and socially excluded individuals and social groups, the problem of the integration of socially excluded and poor social groups into the global social system, or the difficulty in accepting the value and normative system of society, reducing the quality and length of the average age of the poor and socially excluded (www. inkluzija/5.8.2014.)

The urgency of resolving the problems of poverty and social exclusion can be seen on the basis of statistical indicators of our global organization investigating the tendency of development of these phenomena:

- Of the 7.3 billion people in the world , every day, we have about billion hungry people
- Even 2.5 billion people live with less than \$ 2 a day (the limit of absolute poverty)
- Hunger, malnutrition, illnesses (malaria, swine flu, smallpox, tuberculosis, prickly flu, AIDS, etc.)
- 1.4 billion people live in extreme poverty
- Poverty in Asia is being reduced due to economic development- In the EU about 16% of people live below the poverty line
- Most of the poor in the EU live in Romania, Bulgaria, Spain.- In Italy, about 29% of the population is poor
- In Germany, social problems are compounded, about 13% of the population is poor, and large number of young people are excluded from economic life and live from the state aid (EUROSTAT 5.8.2014.).

Foundation International Red Cross has submitted a report on the humanitarian consequences of the economic crisis in Europe 11/01 2013 In the general assessment of the situation, the Red Cross' organization notes that the crisis has led to the most difficult situation in Europe in the last 60 years. In addition, the Red Cross also notes unfavorable tendencies: the poor have become even poorer, new categories of the poor have appeared, and the health status of the population of Europe has been weakening. This picture of the world, in terms of the poor and socially excluded, sets moral and development challenges for overcoming the situation. Enormous wealth disproportions in small portion of the world population and increasing poverty and impoverishment of the vast majority, are source of social instability and social conflicts and obstacles in the democratic and human development of mankind (Hafner, 2015).

The European Union has recognized as its development obligation fight against poverty and social exclusion, and the development of social inclusion policy (inclusion) and social protection of vulnerable population groups. This policy is not necessarily associated with different sectoral policies (employment, social protection, education development, and health policy), because of the complexity of the problem of poverty and social exclusion errors (Vuković, Babović, Vuković, 2009).

On the road to the EU, what is the goal of developing Serbian society, our society has obligation to radically reduce poverty and develop projects for social inclusion of recognized categories of population („The monitoring of social exclusion in Serbia, 2012“).

Building sustainable societies at the national, regional and world level is not possible without creating a dignified life for all people. The greatest value of sustainable

societies is in their socio-economic balance and the creation of various opportunities for poverty reduction and inclusion of all people and social groups in all important processes of social life.

In implementing the policy of European integration of the Republic of Serbia for meeting the criteria of sustainable development and creating sustainable society, necessary condition is to respect the principle of accountability. By complying with this principle, the conditions for faster and better realization of setted goals will be created, as well as the control and elimination of social and environmental risks, which are very expressed in Serbian society.

As the biggest social and environmental risks in creating the conditions for sustainable development and inclusion in European integration flows, the following risks are emerging:

- The risk of poverty and economic underdevelopment,
- Risks of unbalanced regional and demographic development
- The risks of environmental pollution due to underdeveloped ecological waste management practices (Hafner, 2013).

### **The ecological dimension of sustainable development**

Modern civilization is burdened with different challenges (ecological, political, religious, demographic, spatial, ethical, developmental). In addition to creating conflicting situations, different challenges have negative impact on the quality of life in all societies. However, ecological problems at the planetary level represent the most difficult global problems. As the most difficult global problem of civilization, ecological challenges are the subject of multidisciplinary researches. In comprehensive observation of ecological problems, it is important to observe latent (hidden) and manifest (emerging) social causes of environmental problems. Nature and the environment that surrounds us is not itself cause of environmental problems. Only human species (man, society) is able to endanger their own survival by their destructive attitude towards the nature and the living environment. Environmental problems threaten the survival of the human species on planet Earth and in its extreme form environmental problems can cause environmental disaster and complete disappearance of all forms of life.

Today, ecological problems are largely caused by an anthropocentric and neoliberal model of social and economic development that ignores the ecological right of all living beings to a healthy natural and environmental environment. Environmental problems are intertwined by the most developed societies that are at a disagreement between the demands for social benefits and increased allocations for solving environmental problems, on the one hand, and the imperatives of the neo-liberal economic model and entrepreneurial aspiration for lowering costs and increasing economic efficiency and profit, on the other hand.

Taking into account the different character and intensity of the impact of certain factors we consider that the most important global social causes of environmental problems in contemporary society includes the following causes:

- the character of a neoliberal economy that neglects or indcribes the need for environmental protection

- uncoordinated demographic growth, stigma migration, uncontrolled urbanization and uneven spatial distribution of the population
- industrialization and transfer of dirty technologies from developed into undeveloped parts of the world

As a reflection of the manifestation of ecological problems, there are numerous ecological changes: climate change caused by pollution of the atmosphere, emission of harmful gases, ozone layer damage, which causes the effect of "greenhouse", temperature increase, etc.), degradation of natural resources by exhaustion of fossil fuels, pollution of air, sweet and salty water, erosion and soil erosion, reducing the diversity of biodiversity by extinct numerous plant and animal species, and deforestation and the expansion of desert areas.

Environmental challenges primarily determine the survival of contemporary society in economic, political, scientific, technological and cultural terms. The central issue in these changes is to create ecological value of new environmental paradigm of development as the basic change of the society and the economy that lead to development of ecological economics. Environmental values are fundamental individual and collective norms and cultural ideals in our time that, in addition to the general social impacts on creating an ecological economy and reducing and controlling and managing the risks of modern civilization, are:

- the reconciliation of society and nature by abandoning the existing imperial relation of human civilization towards the living and the natural environment,
- directing the economy to the ecological economy and changing the economic paradigm of economic growth at all costs, including the reckless exploitation and pollution of nature,
- institutional building of modern society in its various segments from the point of view of reducing globalization risks (ecological, economic, technological, political, etc.)
- quality socialization of person,
- stabilization and integration of social relations at the national and world level,
- turning mankind towards optimal ecological policy and sustainable development strategy

## **Conclusion**

The concept of sustainable development is a relatively new concept that has been introduced in order to overcome the shortcomings of previous models of development; first of all, neglect of environmental issues. Sustainable development seeks to establish a balance between the various dimensions of the development of economic, environmental and social. However, despite the wide use of the term, it is necessary to better understand the concept of sustainability in order to facilitate the implementation of this model of development.

Sustainability of economic activity, obviously, based on differing grounds. In the first place, there are strong moral reasons that today's generation leaves the descendants in the heritage no less chance for development than it has now. This means that the

present generation of people should not degrade the planet Earth, with all its potentials. The right of the present generation to use resources and the environment should not endanger the same right of future generations. The second group of reasons for the sustainable development of the ecological nature. In fact, if the nature is a value in itself, that is, if biodiversity conservation (or stock of natural resources) is justified in the view that man is part of nature, and that one has no right to irrevocably change, then every aspect of economic activity that violates the diversity of the living world, or the wealth of resources, can be considered unacceptable. The reason for justifying the concept of sustainability often involves economic argument saying that sustainable development more efficient. In other words, non-compliance with the concept of sustainability would lead to more inefficient economic development, in the sense of increasing waste of resources and energy, and a long-term deterioration of the relationship between increasing needs of the people and limited resources. It can be said that sustainable development represents general direction, the desire to create better world through the balancing of social, economic and environmental factors.

The main objectives of sustainable development are thus reduced to the following. The concept of sustainable development is focused on the conservation of natural ecosystems and the rational use of natural resources and the associated with this on improving the quality of the environment and quality of life. Sustainable development implies that man preserves nature on sustainable basis and to uses it as much as it permits its reproduction. If nature is exploited uncontrollably and excessively in relation to the capacity of the environment, then it leads to a disturbance of ecological balance and ecological disasters. The concept of sustainable development puts in the first place the quality of the environment.

Based on the set objectives of sustainable development, the role of the State is clear. The interaction of the state and the market is of primary importance because it allows meeting the needs of people in a way that does not endanger the environment and the right of future generations to live in preserved environment. Environmental problems are problems of external nature justifying state intervention in the market of natural resources. In other words, sustainability implies the complementarity of market mechanisms and state intervention.

## References

- Bek, B. (2001). Rizično društvo. Beograd: Filip Višnjić.
- Gidens, E. (2005). Sociologija. Beograd: Ekonomski fakultet.
- Hafner, P. (2008-2009). Socijalno – ekološki aspekt koncepta održivog razvoja, Naučna studija harmonizacija privredno – sistemskih rešenja Republike Srbije sa EU, Ekonomski fakultet, Niš, 217-223.
- Hafner, P. (2015). Siromaštvo i socijalna isključenost – globalni problem čovečanstva, Naučna studija: antikrizne politike i postkrizni procesi: izazovi ekonomske nauke, Ekonomski fakultet, Niš, 77 – 88.
- Hafner, P. (2007). Sociologija. Niš: Ekonomski fakultet.

- Malešević, K. (1996). Sociološki smisao eko – rizika. Niš: Teme.
- Mitić, G. (2000). Rizici u životnoj sredini , tehnologija i društvo. *Ecologica*, (1).
- Pivašević, J.,& Hafner, P. (2013). Institucionalna dimenzija održivog razvoja. *Škola biznisa*, (3-4): 119-128.
- Vuković, D., Babović, M., Vuković, O. (2009). Socijalno uključivanje. Beograd: SECONS.
- Hafner, P. (2013). Socijalno ekološki rizici u RS u svetlu evropskih integracionih tokova, Naučna studija: "Antikrizne politike i postkrizni procesi: izazovi ekonomske nauke", Ekonomski fakultet, Niš, 3-15.
- The monitoring of social exclusion in Serbia (2012).
- World Commission on Environment and Development (1987).
- [www. inkluzija/5.8.2014](http://www.inkluzija/5.8.2014).
- EUROSTAT 5.8.2014.

Milan Marković<sup>1</sup>  
University of Niš,  
Innovation Center,  
Niš, Serbia

P. 1-12  
SCIENTIFIC REVIEW ARTICLE  
Received: October, 30, 2018  
Accepted: November, 25, 2018

## ORGANIC AGRICULTURE AS A FORM OF SUSTAINABLE AGRICULTURAL DEVELOPMENT OF SERBIA<sup>2</sup>

### Abstract

*The most important condition for the sustainable development of agriculture is the introduction of organic production, which is closely related to the increase in agro-biodiversity. Based on the principle of preserving the environment, organic farming provides agricultural and food products of high quality and health safety. It is the form of agriculture that provides ecological balance, improvement of the social status of farmers and at the same time achieves significant economic benefits. The results of the research show that it is necessary to increase the area under organic production, to increase the participation of fruit organic production and to encourage the export of organic products in other important markets beside the European one.*

**Key words:** sustainable development, agriculture, agro-biodiversity, organic production, Republic of Serbia.

**JEL classification:** Q01, Q15, Q57.

## ОРГАНСКА ПОЉОПРИВРЕДА КАО ОБЛИК ОДРЖИВОГ РАЗВОЈА ПОЉОПРИВРЕДЕ СРБИЈЕ

### Абстракт

*Најважнији услов за одрживи развој пољопривреде јесте увођење органске производње, која је тесно повезана са повећањем агробиодиверзитета. Базирана на принципу очувања животне средине, органска пољопривреда обезбеђује пољопривредне и прехранбене производе високог квалитета и здравствене безбедности. Ради се о облику пољопривреде који обезбеђује еколошку равнотежу, побољшава социјални статус пољопривредника и истовремено постиже значајне економске користи. Резултати истраживања показују да је неопходно повећати површине под органском производњом, повећати учешће воћарске органске производње и подстицати извоз органских производа и на друга значајна тржишта поред европског.*

**Кључне речи:** одрживи развој, пољопривреда, агробиодиверзитет, органска производња, Република Србија.

<sup>1</sup> markovicmilan89@gmail.com

<sup>2</sup> **Acknowledgement:** The paper is a part of the research done within the project number 179066 ("Improving the Competitiveness of Public and Private Sector by Networking Competences in the European Integration Process of Serbia") financed by the Ministry of Education, Science and Technological Development of the Republic of Serbia.

## Introduction

The process of globalization of the world economy imposed on the economic policy makers of all countries the obligation to implement the goals of sustainable development. Discussions on the sustainable development of the world economy were initiated primarily because of the risk of significant damage to the environment. Globalization contributes to the spread of international production standards that have been created by world organizations and institutions. But the impact of this process is not unique. On the world stage, negative effects on the ecological development of primarily less developed countries can often be manifested, primarily taking into account the migration of dirty technologies, which is justified by the need for their faster economic growth.

The sustainability of agricultural production means achieving high yields and profits without degrading the natural resources. Modern agriculture tends to restore destroyed and the conservation and rational use of existing natural resources for the economical production of sufficient quantities of quality food in the context of sustainable agriculture (Vasić, 2013).

Sustainable agriculture ensures the protection of agricultural resources, biodiversity, as well as the diversification of agricultural production (Tomić, Popović, Subić, 2009). It continues to affect the harmonized territorial development, as well as the overall sustainable development. Multifunctional, sustainable agriculture has an important function in the protection of natural resources, ensuring market competitiveness and successful diversification of activities guaranteeing balanced economic growth (Tomić, Popović, Subić, 2009).

The main objective of the review is the specification of the most important aspects of sustainable agricultural development in the Republic of Serbia, with a special emphasis on organic production and its potentials.

### **Importance of agro-biodiversity and organic production for sustainable agricultural development**

The important strategic direction of sustainable agriculture is to encourage diversity in agricultural areas and effective management of biodiversity. Agro-biodiversity is the diversity that exists within the agricultural production and the living world, which is used in human nutrition (Vasić, 2013, p. 45). It refers to the biological diversity of plants, animals and micro-organisms important for agricultural production, as well as to human and animal nutrition (Filipović & Ugrenović, 2013).

Agro-biodiversity implies the choice of varieties and species that are desirable, bearing in mind economic and environmental aspects of sustainable agriculture. The high diversity of ecosystems allows for faster recovery from the changes occurring under the influence of sudden disorders and faster establishment of the basic functions (Oljača, 2013, p. 4). This further contributes to the conservation of resources and species composition. Stable and diversified production enable the environmental protection and food safety.

Special danger to the sustainable agricultural development is the development of monoculture production and disruption of biological diversity. Due to the migration of rural population to the cities, there was a disappearance of local varieties. Just old varieties are surviving thanks to the favorable characteristics of those sites, tradition, nutrition of the local rural population, as well as adequate climatic conditions. Gathering wild foods, growing locally adapted varieties and eating from the local ecosystem are

practices that continue to be part of civilizations and cultures; their potential value for food security and rural development has been recognized (Toledo & Burlingame, 2006, p. 478).

Diversity has an important role in preserving the stability of the ecosystem. Therefore, maintaining and enhancing biodiversity is one of the most important conditions for sustainable agricultural development. Implementation of agro-ecological measures into agricultural policy of one country, which part is organic farming, ensured biodiversity protection (Simić, 2017, p. 28).

In the case of monoculture agricultural production there is a conflict between economic and environmental objectives of agriculture. Monoculture production refers to the production of only one type of agricultural product. On the other hand, sustainable agriculture requires that the protective chemicals substitute plants. This certainly does not correspond to the short-term (profit) goals of manufacturers of conventional agricultural production, due to the difficulty of applying machinery in these conditions, although this reduces the number of harmful organisms and create the conditions for the development of good microorganisms.

Reduction of soil fertility is still one of the consequences of monoculture production, which is motivated by the realization of a higher profit, as a key objective in market economies. In the conditions of globalization of the world economy, production tends to be monoculture, in order to obtain the effects of increased production efficiency (economies of scale). Industrial food production and hybrid species should not completely replace local, organic food production. In addition to the globalization of agriculture, as essential determinants that influence the growth of monoculture production cited climate change and the need to meet increased demand for food growing population. However, this disturbs the agro-ecosystem sustainability, security of agricultural and food products and diversification of organisms in nature.

Systems of sustainable agriculture, which include organic production, introduce biodiversity increase as a necessary measure to increase productivity and protect agro-ecosystems (Oljača, 2013, p. 3). This production is fully based on ecological principles. Applied method of organic agriculture protects and saves biodiversity: preservation of the local population and species - autochthonous and domestic, introducing less present varieties and species in production, introduction of crop rotation (increased biodiversity in time), using intercropping and buffer zones (Simić, 2017, p. 28).

Organic farming is the most important condition for sustainable agricultural production. It presents a comprehensive production management system of agri-food products, which combines good agricultural practices, a high level of biodiversity, preservation of natural resources, as well as the production method in accordance with the commitments of certain consumers for products whose production are used natural substances (Radosavljević, Gajdobranski, Krmpot, 2014, p. 20). On the other hand, Sundrum (2001, p. 1) gives the definition of organic livestock production: organic livestock farming has set itself the goal of establishing environmentally friendly production, sustaining animals in good health, realizing high animal welfare standards, and producing products of high quality.

Organic production allows for higher and more stable income to farmers, unlike conventional markets of agricultural products which are considerably more unstable and which form a lower price (Seufert, 2012). In this way, organic production has positive implications on the economic status of farmers. In addition, it provides the protection of human health (social aspect), and environmental protection. On the other hand, genetically modified food production disrupts the environment and natural biodiversity. Increasing agro-biodiversity, as well as the production of organic food, is in the function

of development of rural areas. All this testifies to the close connection between agrobiodiversity and organic production. Sustainable farming systems such as organic farming are now seen by many as a potential solution to this continued loss of biodiversity (Hole et al., 2005, p. 1).

### Potentials of organic agriculture in the Republic of Serbia

In the agricultural development strategies of many countries, structural changes and sustainable development are the main strategic goals of this sector. Accordingly, consideration of the role and importance of organic agriculture is gaining in importance. In the SWOT analysis of the agricultural sector of the Republic of Serbia, organic agriculture is marked as a chance to be used. It is a form of agricultural production that significantly improves the structure of production and exports, as well as their value. In addition to the economic effects of higher foreign exchange earnings, there are other reasons why organic agriculture is among the development priorities:

- Production of high quality food,
- Use of renewable energy sources,
- Use of natural means of protection,
- Environmentally friendly production,
- The possibility of achieving higher revenues in relation to conventional production,
- Activating the unemployed labor force in rural areas.

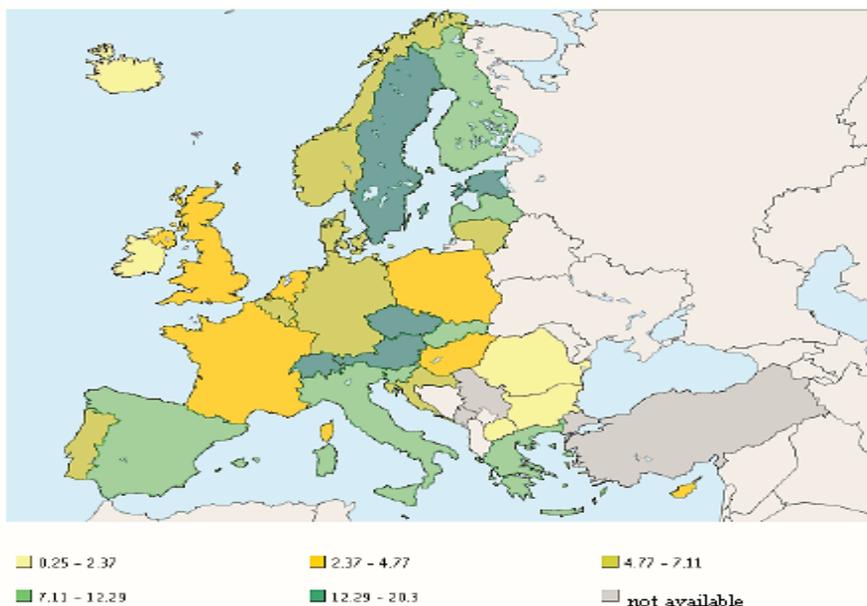
The Republic of Serbia has good conditions for the development of organic agriculture. Simonović, Mihailović and Janković (2017, p. 21) consider that in Serbia there are natural conditions for the development of organic agriculture, which are seen primarily in unpolluted agricultural areas, as well as in the existence of households in mountainous areas with a rounded cycle of plant and livestock production.

Overall areas under organic production in Serbia are constantly increasing (Table 1). However, relative to the total land used, it is a very small percentage of 0.44, which places Serbia at the bottom of Europe (along with Bulgaria, Romania and Macedonia), bearing in mind Figure 1.

Table 1: Overall areas under organic production (in ha)

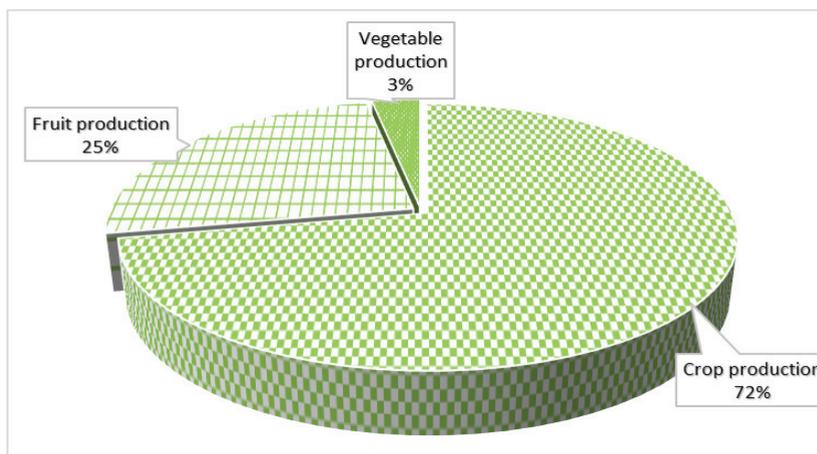
Year	Overall areas under organic production
2010	5.855
2011	6.335
2012	6.340
2013	8.228
2014	9.548
2015	15.298

Source: Simić, 2017.

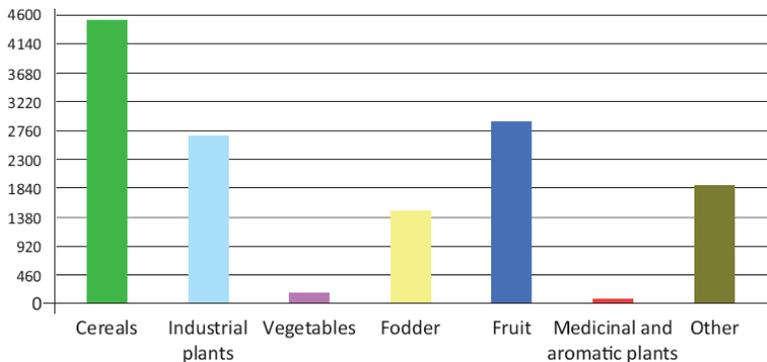
*Figure 1: Organic production in European counties (2015, in percentages)*

Source: Eurostat, 2017.

The structure of organic plant production in Serbia (as the dominant branch of agriculture) is shown in Figure 2, and in Figure 3 (more detailed classification, by arable land). Crop production covers 72% of the total area under organic production; production of fruit covers 25% and vegetables are grown on only 3% of the overall areas under organic production. Emphasis should be placed on the relative increase in the share of fruit production, as a type of plant agricultural production with higher added value.

*Figure 2: Structure of organic plant production in Serbia (2014)*

Source: Kalentić et al., 2014.

*Figure 3: Organic plant production in Serbia (in ha, arable land, 2015)*

Source: Simić, 2017.

The economic benefits of organic agriculture can be achieved through exports, since these are products that are several times more expensive than conventional ones. Organic products are mainly exported to the European Union market (above 70%), which is a high-income consumer market.

*Table 2: Export of organic products by country in 2015*

Country	Export value in EUR	Participation
European Union	13.787.417	70,4%
USA	4.269.38	21,8%
EFTA	724.198	3,7%
Other	596.866	3,0%
CEFTA	195.519	1,0%
<b>Total</b>	<b>19.573.389</b>	<b>100,0%</b>

Source: Simić, 2017, p. 41.

When we observe the total value of exports of organic products of the Republic of Serbia, there is a drastic rise in 2013 and 2015. (Table 3).

*Table 3: Export value of organic products (in millions of EUR)*

Year	Export value in millions of EUR
2012	3,74
2013	10,7
2014	11,2
2015	19,6

Source: Simić, 2017, p. 41.

Table 4 shows the most important export product groups for the latest available year. Fruit organic products are mostly exported to the world market. Based on this table

and the structure of organic plant production, it is noted that the crop products are almost completely spent on the domestic market.

*Table 4: Exports of organic products by product groups in 2015*

Product group	Value (in EUR)	Participation (in %)
Fruits	17.082.205	87,27%
Fruit products	2.115.178	10,81%
Mushrooms	172.239	0,88%
Spices	62.570	0,32%

*Source: Simić, 2017, p. 41.*

Organic production is considered a good prospect in further economic development. It is especially important in the good positioning on the world market through the creation of recognizable brands. The state should recognize the interest of development of organic production and to define it as one of the basic development goals (Birovljev & Kovljenić, 2015, p. 121). In addition, it is necessary promotion by various social actors such as Ministries, Associations, Faculties, Universities, non-governmental organizations.

## Conclusion

Sustainable agricultural development has organic production on its basis. Together with increasing agrobiodiversity, organic agriculture presents the main condition for sustainable agricultural development in Serbia.

Benefits from this production are realized by:

- Farmers (higher market revenues),
- Consumers (higher quality, nutritional value and health safety of food),
- Environment (preservation of natural resources, ecosystems and biodiversity).

Also, the abandonment of rural areas and agricultural land is prevented and it allows for greater employment in these areas. The country can generate higher export earnings and thus increase its participation in the world trade.

The research has shown that the basic aspects of sustainable agricultural development are closely linked, that organic production and the promotion of biodiversity are engines of sustainable development in this field, and that despite the increase in organic production area, there is still a small percentage in relation to European countries. The unfavorable situation is that in the structure of plant production, the majority of the products are crop products. However, when it comes to exports, the export of fruit production is dominant and this trend should continue. By increasing the organic production of fruits, the necessary structural changes in agriculture can be initiated.

The European Union is the main destination for the export of the organic products. But in order to prevent dependence on one market, regional diversification needs to be done. This is possible because there is a trend of increasing the total value of organic agriculture production and exports.

Organic production is considered a perspective in almost all sustainable development strategies. The development of organic production, besides contributing to environmental protection, also affects the level of competitiveness of agriculture.

## References

- Birovljev, J., & Kovljenić, M. (2015). Šanse i ograničenja razvoja organske proizvodnje. *Novi ekonomist – časopis za ekonomsku teoriju i praksu*, Vol. 9, No. 2, 117–122.
- Eurostat (2017). *Areas under organic production*. Retrieved: October 13, 2017, from: <http://ec.europa.eu/eurostat/eurostat/tgm/mapToolClosed.do?tab=map&init=1&plugin=1&language=en&code=tsdpc440&toolbox=legend>.
- Filipović, V., & Ugrenović, V. (2013). Biodiverzitet zemljišta u sistemima organske proizvodnje. In: Ugrenović, V., Filipović, V. (eds.), *Zbornik radova: Organska proizvodnja i biodiverzitet* (pp. 3–25). Pančevo: Institut „Tamiš“.
- Hole, D. G., Perkins, A. J., Wilson, J. D., Alexander, I. H., Grice, P. V., & Evans, A. D. (2005). Does organic farming benefit biodiversity?. *Biological conservation*, Vol. 122, No. 1, 113–130. Doi:10.1016/j.biocon.2004.07.018
- Kalentić, M., Stefanović, E., Simić, I., & Maerz, U. (2014). *Organic Agriculture in Serbia - At a glance 2014*. Belgrade: National Association Serbia Organica.
- Oljača, S. (2013). Poljoprivreda i biodiverzitet. In: Ugrenović, V., Filipović, V. (eds.), *Zbornik radova: Organska proizvodnja i biodiverzitet* (pp. 3–25). Pančevo: Institut „Tamiš“.
- Radosavljević, Ž., Gajdobranski, A., & Krmpot, V. (2014). Održivi razvoj i organska proizvodnja kao bitni faktori savremene poljoprivredne proizvodnje. *Agroekonomika*, Vol. 43, No. 61-62, 20–30.
- Seufert, V. (2012). Organic Agriculture as an Opportunity for Sustainable Agricultural Development. *Policy Brief No. 13*, Institute for the study of international development.
- Simić, I. (2017). *Organic Agriculture in Serbia - At a Glance 2017*. Novi Sad: National Association Serbia Organica.
- Simonović, Z., Mihailović, B., & Janković, M. (2017). Usmeravanje poljoprivredne proizvodnje u Srbiji i održivost njenog razvoja. *Economics of Sustainable Development*, Vol. 1, No. 1, 19–32.
- Sundrum, A. (2001). Organic livestock farming: a critical review. *Livestock Production Science*, Vol. 67, No. 3, 207–215. Doi: [https://doi.org/10.1016/S0301-6226\(00\)00188-3](https://doi.org/10.1016/S0301-6226(00)00188-3)
- Toledo, Á., & Burlingame, B. (2006). Biodiversity and nutrition: A common path toward global food security and sustainable development. *Journal of food composition and analysis*, Vol. 19, No. 6-7, 477–483. Doi: <https://doi.org/10.1016/j.jfca.2006.05.001>
- Tomić, D., Popović, V., & Subić, J. (2009). The Role of Agriculture in the Sustainable Territorial Development. *BULETINUL Universității Petrol – Gaze din Ploiești: Seria Științe Economice*, Vol. 61, No. 3, 1–10.
- Vasić, M. (2013). Povećanje agrobiodiverziteta u sistemima održive poljoprivrede. In: Ugrenović, V., Filipović, V. (eds.), *Zbornik radova: Organska proizvodnja i biodiverzitet* (pp. 45–63). Pančevo: Institut „Tamiš“.

**Јелена Станковић<sup>1</sup>***University of Niš, Faculty of Economics**PhD studies*

P. 1-12

SCIENTIFIC REVIEW ARTICLE

Received: November, 13, 2018

Accepted: December, 15, 2018

## GREEN MARKETING AND GREEN PRODUCT

### Abstract

*The environmental issues are a major topic nowadays as nearly every country, government and society has started to be more aware of these issues. This has led to a trend of green marketing used by firms as one of the strategies, in order to gain profit and protect the environment. Although the concept of sustainable development appeared in the 1970s, only recently has it been incorporated by firms. In order to be sustainable, development has to satisfy the needs of current generations, without compromising the ability of future generations to satisfy theirs. This requires a balance in managing social, economic and environmental goals, both current and future. Given the increasing evidence of environmental problems, the awareness of the need for sustainability has been increasing, at both individual and corporate level. The environmentally responsible firms gain many benefits, such as cost reduction (due to the lower resource consumption, such as water or energy), profit increase (from recycling and reuse of residuals), production process enhancement (given the use of cleaner and more efficient technologies), improvement of brand awareness and value, as well as business performance. On the other hand, firms associated with actions that do not lead to sustainable development have been damaged in these areas. Within the frame of green strategy, a green brand obtains attributes and benefits related to the reduction of the brand's environmental impact. This paper will be discussing the green marketing and its sustainability, as well as the tools and marketing of green marketing mix.*

**Key words:** *sustainable development, green marketing, green product, green consumer, green strategy*

**JEL classification:** *Q13, Q43, Q56.*

## ЗЕЛЕНИ МАРКЕТИНГ И ЗЕЛЕНИ ПРОИЗВОД

### Апстракт

*Питање заштите животне средине данас је битна тема јер су скоро свака држава, влада и друштво почели да буду свеснији о овим питањима. Ово води ка тренду зеленог маркетинга који компанија користи као једну од стратегија да би стекла профит и заштитила животну средину. Иако се концепт одрживог развоја појавио 1970-их година, тек недавно је он инкорпориран од стране фирми. Развој, да би био одржив, мора задовољити потребе садашњих генерација, без компромитирања способности будућих*

---

<sup>1</sup> jelena.a.stankovic@eknfak.ni.ac.rs

*генерација да задовоље своје. То захтева равнотежу у управљању друштвеним, економским и еколошким циљевима, и то у садашњости и будућности. С обзиром на то да постоје све већи докази о проблемима животне средине, свесност о потреби одрживости се проширио, на индивидуалном и на корпоративном нивоу. Еколошки одговорне фирме добијају више користи, као што су смањење трошкова (због смањене потрошње ресурса, као што је вода или енергија), повећање профита (од рециклаже и поновне употребе), побољшање производног процеса (с обзиром на употребу чистије и ефикасније технологије), побољшање свесности и вредности бренда, као и пословних перформанси. Насупрот томе, фирме повезане са акцијама које не воде одрживом развоју су оштећене у тим подручјима. У оквиру зелене стратегије, зелени бренд добија атрибуте и бенефиције везане за смањење утицаја на животну средину бренда. Као такав, требало би да промовише перцепцију еколошки здравог бренда и открије користи за потрошаче који су свесни околине. Овај рад ће разматрати зелени маркетинг и његову одрживост, као и алате маркетинг микса зеленог маркетинга.*

**Кључне речи:** одрживи развој, зелени маркетинг, зелени производ, зелени потрошачи, зелена стратегија

## Introduction

Due to growing environmental problems, environmental management today is becoming a challenge and a necessity of the modern world. The consequences of human behavior, which have led to various diseases, the disappearance of once inexhaustible sources, global warming, etc., are becoming more and more evident. Such reasons have led to environmental changes and to consumer awareness regarding the impact they may have on environmental conservation. A segment of environmentally responsible consumers is being created. Although they make smaller and more passive market than other consumers, they are quite interesting when viewed as the target market, and marketing has quickly adapted to that by creating and shaping new activities called green marketing. Such activities may include modification of products, changes in the production process, changes in packaging, and altered modes of advertising. In green marketing, the most important thing is to focus on consumers, or to make products that will motivate consumers to buy them and even pay the higher price in order to behave ecologically responsibly.

Marketing acts as one of the strategic areas that companies can use to create present and future social prosperity and respect the environment compatible with their business. Green marketing focuses on the development and marketing of products and services that meet the needs of clients, taking into account environmental sustainability (Polonsky, 1994). This enables the construction of a bridge between what the market wants and consumers want. (Rex, Baumann, 2007). Companies can focus on the development of new and "cleaner" products. However, if these are products with low perceived quality, high-price or are not delivering environmental benefits, they will not attract customers and this will result in negative performance of the companies (Ginsberg, Bloom, 2004;

Ottman, Stafford, Hartman, 2006). Thus, green marketing companies try to discover specific customer needs, customer profiles for environmental protection, and the ways to incorporate these findings into their offer (Ottman, 1994). Companies can find ways to differentiate their products and even help establish well-known green brands.

The purpose of the paper is to show how green marketing today is becoming one of the most important activities of a company. Companies that want to prevail on the market must learn to adapt to change and find the solutions better and faster than their competitors do. Managers realize that by adopting green marketing, they will gain greater competitive advantage and profit, as well as contribute to environmental protection.

## Green marketing

The first workshop on environmental marketing was organized by the American Marketing Association (AMA) in 1975. In the beginning, green marketing meant highlighting the product or the company as environmentally friendly. Today, the environmental awareness is far greater, and the eco-label is not enough (Tomašević S., 2014).

“Green marketing is a form of social marketing in which products, services and all marketing activities are planned and implemented while taking into account the effects and impact they can have on the environment and society as a whole” (Lacković, Andrić, 2007).

Green marketing is the process of designing, manufacturing and selling products or services based on environmental benefits, e.g. the use of recycled raw materials for the production of products, the use of filters in production, and the like. Green marketing is no longer just a trend, but a major change in the way businesses operate. It is a kind of social marketing that involves cooperation with suppliers, traders, partners and competitors in order to achieve ecologically sustainable development throughout the value chain. In addition, this collaboration is important for all business functions in order to achieve the best solutions for obtaining profit and having a positive impact on the environment.

Two main goals of green marketing are:

1) to develop products that balance the consumers' need for quality, convenience, performance and reasonable price, and all this with the minimum negative impact on the environment,

2) to create an image of high quality, including ecological prudence.

The first rule of green marketing is the first rule of marketing: focus on the benefits of the product or services that the consumer who pays for them gains. If this is done correctly, there is a possibility that the consumer will be motivated to choose that product instead of the competitor's product and even pay a higher price in order to behave environmentally responsibly (Tomašević S., 2014).

Green marketing has raised consumers' awareness of how their behavior can positively affect the environment. It includes a range of activities, such as product modification, changes in the production process, changes in packaging, and altered ways of advertising.

Managers realize that by adopting green marketing, they will gain greater competitive advantage and greater profits for the company and provide protection of

the environment. Adoption and application of green marketing is an opportunity for the company to contribute to the protection of the environment and society, while at the same time realizing its profit goal. This ensures a balance between environmental and economic performance (Nefat A., 2015).

Competitive advantage can be created in different ways. A company can be different from competition if it creates unique products that will have a positive environmental impact, which will provide consumers with greater satisfaction than the competitors' products do. Also, it is important to create a unique brand so that the products would have a lasting identity, and that will provide the consumers with a sense of trust and security. The company can follow a low-cost strategy by using less material, energy and generating less waste. It is necessary to constantly seek new places to promote innovation, and encourage consumers in many ways to use products and to act responsibly towards the environment.

### **Strategies of green marketing**

While developing a green marketing strategy, companies need to consider two key aspects in order to create a product that meets the needs of consumers while having minimal negative impact on the environment, and to create perceptions in consumer minds, in order to prove product quality and their commitment to protecting the environment (Menon, 1997). Green marketing strategy implies a qualitative change in the relationships between customers and businesses. To meet the needs of ecological consumers, companies must develop both functional and emotional benefits of the product. Most environmental issues include people's spiritual needs, which lead to differences in comparison in the classic marketing strategy. The green marketing strategy includes proactive position and long-term orientation (De Bakker, 2009). This proactive approach is aimed at gaining competitive advantage by strategically positioning the product in the minds of consumers. To achieve that, all the participants in the value chain should be in accordance with the goals of green marketing. This requires all the participants to cooperate and have a sense of environmental conscience (Peattie, 1999). To obtain these benefits, a green marketing strategy has to deal with some basic areas, such as market segmentation, green product development, green positioning, green logistics, green communication, green partnership development (Peattie, 1999). Therefore, the green strategy has enormous scope, and is not limited to brand management. However, as the key aspect of marketing and strategic management, strategic brand management plays an important role in relation to sustainable development (Meffert, Bierwirth, 2005). In this context, creating and managing green brands is crucial for green marketing.

### **Green brand**

Brands are meaningful systems which include values, ideas, associations, feelings and emotions that make up a more or less cohesive identity (Chandler, Owen, 2002; Collins, Carey, 1983; Farquhar, Han, Herr, Ijiri, 1992). With this in mind, brands make it possible to distinguish and protect products from similar competing products (Low, Lamb, 2000).

Brand is a complex and multidimensional concept that can have up to six levels of meaning (Kotler, K. Keller, 2006):

- Attributes: a brand includes a specific set of characteristics;
- Advantages: a brand attributes should be translated into the functional and emotional benefits which the consumers value;
- Values: a brand communicates something about the values of the company;
- Culture: a brand can be a specific cultural expression;
- Personality: a brand can be transferred to a particular person, which can gradually be built through marketing communication;
- User definition: a brand proposes the type of consumer who purchases it or uses it.

Within brands, green brand is defined as a specific set of attributes and benefits associated with minimizing the impact on the brand's environment and on its perception as environmentally sound (Hartmann, Ibanez, Sainz, 2005). The green brand should provide benefits to consumers who have environmental awareness. In order to succeed, the green brand should offer significant environmental advantages over other brands and be aimed at consumers who are willing to support environmental issues (Kaman, 2008). This means that the green brand must communicate with the target audience, while the good environmental performance of the brand leads to a positive attitude towards this brand (MontoroRios, Marinez, Moreno, Soriano, 2006).

Markets and customers tend to more willingly accept brands that are perceived as green (Phau, Ong, 2007). Moreover, previous studies show that, as far as the environmental respect is concerned, the specific requirements of a green product are bigger than general corporate requirements (Phau, Ong, 2007). These findings also highlight the development of the appropriate positioning of the green brand and the relevance of the active and differentiated communication of the brand identity and the value of the offer to the target group. (Aaker, Joachimsthaler, 2000). Environmentally sustainable products will not commercially succeed if the attributes and benefits of the green brand are not efficiently communicated (Pickett, Kangun, Grove, 1995).

However, when they communicate, companies need to consider certain issues. On the one hand, they must ensure the environmental compatibility of the brand with specific product characteristics and information. This is what is known as the "functional positioning strategy" (Hartmann, Ibanez, 2006). Considering only the technical characteristics may not be sufficient. Brand's emotional associations are very important. Cognitive and emotional mental processes contribute to the creation of brand's views (Hartmann, Ibanez, 2006). Accordingly, the brand should communicate both functional messages and emotional messages (Hartmann, Ibanez, Sainz, 2005). On the other hand, the choice and type of complaint is crucial. Unclear and groundless claims about the brand can have a negative impact on its reputation, and leading consumers can become skeptical of the claims about the company's environmental impact (Peattie, 1999).

### **Marketing mix in green marketing concept**

In green marketing, environmental protection is an element which marketing mix must fully support. Marketing mix, known as 4P, consists of components such as product, price, place and promotion. In the expanded marketing mix, as in the case of

a service sector, three more components are added, such as people, physical evidence, and processes. According to the principle of green marketing, each component in the marketing mix will have a green perspective, from the establishment to the introduction of the product on the market (Arseculeratne & Yazdanifard, 2014). When a product is produced in the process that is ecologically acceptable and environmentally friendly, the product can be called a green product. During the production process, environmental pollution is something that needs to be reduced. Natural resources should be preserved during the physical removal of materials from the product. Eco-design product should be produced, and the packaging process should reduce contamination and pollution. Product improvement certainly involves a significant amount of unrecoverable expenses, but it is worth it, because a product development will result in turnaround in sales. Revers logistics allows consumers to return the used packaging for remanufacturing, which would significantly help to preserve the environment (Arseculeratne & Yazdanifard, 2014). Creating a green product is absolutely costlier because it consists of various expenses such as educating people, establishing modern technology, absorbing external expenses, converting waste into recycled products. There is no doubt that these products will cause higher product prices.

Consequently, the green price is called premium price. Marketing efforts need to rationalize these expenses and consumers must be convinced to pay the price, so that realistic messages in advertising are displayed. However, when it comes to packaging material, the price of packaging green products can be reduced. Green distribution involves defining the pathway to reducing environmental damage. Most damage is induced when delivering goods. Therefore, safety precautions must be taken during the goods delivery (Arseculeratne & Yazdanifard, 2014). The company's promotional material is necessary in green marketing. The main information regarding errors must be transmitted to customers through direct marketing, promotion of sales, advertising and public relations. Public relations and advertising have indeed become the most widely used platforms for launching a green business perspective. Occasionally, a green product is being developed in national connection because it forms a bridge between businesses and society. Green advertising can be used to promote products, justify their characteristics and price. Due to lack of information, most buyers are not very aware of the importance of a green product, and a green promotional strategy should take into account this fact. In order to fill this gap in the lack of information, companies can make numerous promotions. Consumers should be familiar with the types of environmental problems that would be reduced or eliminated by using a green product. In order to develop interest in the green product, the emphasis must be on ecological problems (Arseculeratne & Yazdanifard, 2014).

### **Green marketing and consumers**

A green consumer is the consumer who, when satisfying his or her wishes and needs, gives priority to a product that has minimal detrimental effect on the environment. Although they make up a smaller market than other consumers, they are very interesting as target market. These are mainly educated consumers who think intensively about environmental issues when purchasing and using products. They are often active in their

environment by accepting and supporting ecological actions and are willing to pay a larger amount of funds for organic products. When shopping, they take into account all the available information and all the available knowledge in order to choose a product that represents the optimal combination which meets their own needs and protects the environment and the entire community.

The green consumer requires a product that:

- 1) does not cause damage to the environment during production, use or disposal,
- 2) consumes smaller amount of energy,
- 3) does not create unnecessary waste,
- 4) does not contain substances that come from endangered species,
- 5) does not jeopardize his health and the health of others,
- 6) does not include cruel treatment of animals during production or testing.

Because of this, consumers expect to be fully informed about the product or packaging in which the product is placed, because they are motivated by the desire to protect themselves and their loved ones and secure their future. Therefore, marketing is directed towards meeting the needs of more and more demanding consumers, i.e. the new generation of consumers who want to change their life habits, and lead a green lifestyle.

There are some negative consequences that green marketing can have on consumers. For example, if manufacturers have additional expenses (due to the introduction of environmental protection processes), they are passed onto the consumers by increasing the price of products and services and thus reducing their purchasing power. Also, there may be negative consequences in green marketing communications, for example, if the activities that promote ideas of environmental protection are based on fear, they can cause the consumers to feel a sense of dissatisfaction, distress and fear of the future.

The consumer is daily bombarded with lots of information and products from all sides. Satisfied consumers will continue to buy, and dissatisfied will stop. Today's consumers are mostly well-informed, and companies can no longer deceive them with stories of ecologically responsible behavior if they are not ecologically responsible. By deceiving and by planting fake green products, companies can cause great damage.

### **Advantages of green marketing**

Ecological values, ecological awareness and ecological culture are important determinants of sustainable development. Taking into account the principles of sustainable development and ecological value, it is possible to reduce, control and manage a risk that give our civilization characteristics of a risky society. In order to achieve a sustainable development of the socio-ecological-economic system, it is crucial to achieve rapid economic growth in the long run (Krstić, Krstić, Đekić, 2018). Today, consumers gradually confirm that they have the need to take care of the environment and that they are responsible. Therefore, the company's responsibility towards consumers is reflected in the hinting environmentally harmless or environmentally neutral products (Saini, 2013). Green marketing has many important advantages for those communities that accept these new concepts. The first important advantage is revenue growth. Consumers prefer any new and positive concept, so the innovator plays a key role in this segment. A successful

product that satisfies the consumers will definitely increase sales and revenue. Another important advantage is cost reduction. In green marketing, the cost of raw materials is low so that would increase production and save money. In addition, green marketing can build brand value. A large green practice company will gain a good brand value in the hearts of the consumers. Another important advantage of green marketing is tax incentives and government loans. Because of this, an innovative company that helps people living in a rural area or unemployed people will have uncertain risks. In addition, they preserve the environment and health and because of that they receive subsidies from the government. In the end, the most important advantage of green marketing is saving the entire world. Disposal and waste treatment during the production process will cause emissions from several gases that contribute to global climate change that can cause greenhouse effect. By following the excellent way of green practice, companies could save the world in terms of saving people's health and the environment (Rajeshkumar, 2012).

## Conclusion

Environmental issues continue to affect human activities, and the society now considers them to be a great concern. Most companies have started to use the sustainable development framework known as green marketing and most organizations have recognized green products that are environmentally friendly. Marketing managers can use green marketing to generate profit. In addition, green marketing is able to preserve the environment by meeting the needs of consumers. Thus, green marketing is a tool now used by many companies to increase their competitive edge as people are currently very concerned about environmental issues. In applying green marketing, companies must respect the needs and desires of consumers. Consumers want to recognize companies that are green, compatible with them, and they are willing to pay more for a greener lifestyle. For this reason, green marketing is not only a tool for environmental protection, but also a marketing strategy. In addition, salespeople can provide training to their employees, in particular to sales representatives. This requires the knowledge of how to effectively promote the green product by showing the main message to consumers. Green marketing covers a wide range of business activities and is similar to marketing. Therefore, salespeople need to adopt a conveniently unique ecological marketing mix and a strategy that suits the company, and in which they fulfill and target consumers' requirements and personalities. In addition, companies that conduct green marketing at the right place and on the right person can provide the company with a competitive advantage.

## References

- Polonsky, M. (1994). An introduction to green marketing. *Electronic Green Journal*, 1(2) 1-1.
- Rex, E., & Baumann, H. (2007). Beyond ecolabels: what green marketing can learn from conventional marketing. *Journal of cleaner production*, 15(6) 567-576.

- Ginsberg, J. M., & Bloom, P.N. (2004). Choosing the right green-marketing strategy. *MIT Sloan Management Review*, 46(1) 79-84.
- Ottman, J.A., Stafford, E.R., & Hartman, C.L. (2006). Avoiding green marketing myopia: ways to improve consumer appeal for environmentally preferable products. *Environment: Science and Policy for Sustainable Development*, 48(5) 22-36.
- Ottman, J. (1998). *Green marketing: opportunity for innovation*. NTC Business Books, McGraw-Hill, Illinois
- Menon, A. (1997). Enviropreneurial marketing strategy: the emergence of corporate environmentalism as market strategy. *Journal of Marketing*, 61(1) 51-67.
- De Bakker, F.G. (2009). *Corporate Culture and Environmental Practice: Making Change at a HighTech Manufacturer*. Edward Elgar, Northampton
- Peattie, K. (1999). Trappings versus substance in the greening of marketing planning. *Journal of Strategic Marketing*, 7 (1999) 131-148.
- Meffert, H., & Bierwirth, A. (2005). *Corporate Branding*, 2nd. edition, Gabler, Wiesbaden
- Chandler, J., & Owen, M. (2002). *Developing Brands with Qualitative Market Research*. Sage Publications, London.
- Collins, L., & Carey, C. (1983). The Crisis in Branding or do Brands Have a Future? *Proceedings of the Market Research Society Conference*, MRS, London.
- Farquhar, P., Han, J., Herr, P., & Ijiri, Y. (1992). Strategies for leveraging master brands, *Marketing Research*, 4(3) 32-43.
- Low, G.S., & Lamb Jr., C.W. (2000). The measurement and dimensionality of brand associations. *Journal of Product and Brand Management*, 9(6) 350-368.
- Hartmann, P., Ibanez, V.A., & Sainz, J.F.F. (2005). Green branding effects on attitude: functional versus emotional positioning strategies, *Marketing Intelligence and Planning*, 23(1) 9-29.
- Kaman, L. (2008). Opportunities for green marketing. *Marketing Intelligence & Planning*, 26(6) 573-586.
- MontoroRios, F.J., Marinez, T.L., Moreno, F.F., & Soriano, P.C. (2006). Improving attitudes toward brands with environmental associations: an experimental approach. *Journal of Consumer Marketing*, 23(1) 26-33.
- Phau, D., & Ong, I. (2007). An investigation of the effects of environmental claims in promotional messages for clothing brands. *Marketing Intelligence and Planning*, 25(7) 772-788.
- Aaker, D., & Joachimsthaler, E., (2000). *Brand Leadership*. Free Press, London,
- Pickett, G.M., Kangun, N., & Grove, S.J. (1995). *An examination of the conserving consumer: implications for public policy formation in promoting conservation behavior*. In M.J. Polonsky and A.T. Mintu-Wimsatt (Eds), *Environmental Marketing: Strategies, Practice, Theory and Research*. The Haworth Press, New York
- Hartmann, P., & Ibanez, V.A. (2006). *Green value added*. *Marketing Intelligence & Planning*, 24(7) 673-680.

- Kotler, P., & Keller, K. (2006). *Marketing Management*, 12<sup>th</sup> edition, Pearson/Prentice Hall, New Jersey.
- Rajeshkumar, M. L. (2012). An overview of green marketing. *Naamex International Journal of Management Research*, 2, 128-136. Available at: [http://www.namexijmr.com/pdf/archives\\_jan\\_june\\_2012/namex%20ijmr%20%20abstract%20and%20paper%2014.pdf](http://www.namexijmr.com/pdf/archives_jan_june_2012/namex%20ijmr%20%20abstract%20and%20paper%2014.pdf).
- Saini, B. (2013). Green marketing and its impact on consumer buying behavior. *International Journal of Engineering Science Invention*, 2, 61-64. Available at: [http://www.ijesi.org/papers/Vol%202\(12\)/Version-2/K021202061064.pdf](http://www.ijesi.org/papers/Vol%202(12)/Version-2/K021202061064.pdf).
- Arseculeratne, D., & Yazdanifard, R. (2014). How green marketing can create a sustainable competitive advantage for a business. *International business research*, 7, 130-137. Available at: <http://ccsenet.org/journal/index.php/ibr/article/view/31502/19041>.
- Tomašević, S. (2014.) *Zeleni marketing*. Poslovni savjetnik, br. 39., str.40-41. Available at: <http://www.poslovni-savjetnik.com/>.
- Lacković, Z. & Andrić, B. (2007). *Osnove strateškog marketinga*. Požega: Veleučilište u Požegi.
- Nefat, A. (2015). *Zeleni marketing*. Pula: Sveučilište Jurja Dobrile.
- Krstić, B., Krstić, M. & Đekić, I. (2018). Sustainability of development and growth – crisis, distribution of income and inequality. *Economics of Sustainable Development*. 2(1) 1-12.

## ШАБЛОН / ТЕМПЛАТЕ ЗА ПИСАЊЕ РАДОВА

Име аутора (Font size 10 Normal) Times New Roman (SR-Cyrilic)  
*Факултет или институција и Град (Font size 10 Italic)*

### НАСЛОВ СРПСКИ (Font size 11 Bold)

#### Апстракт

*Текст апстракта на српском ...*

***Кључне речи:***

### NASLOV ENGLISKI ili neki drugi jezik (Font size 11 Bold)

#### Abstract

*Tekst apstrakta na engleskom ili na nekom drugom jeziku...*

***Key words:***

### НАСЛОВ (Font size 11 Bold)

Текст (Font size 10).....

## Литература

### 1. Списиак литературе

Veličina strane 170mm x 240mm  
Margine: Top 30mm Bottom 20mm  
Left 22mm Right 22mm

CIP – Каталогизација у публикацији  
Народна библиотека Србије, Београд

33+502/504

**ECONOMICS of Sustainable Development** =  
Економика одрживог развоја / editor-in-chief  
Dragoljub Simonović. - Vol. 2, br. 2 (2018)- . - Niš :  
Society of Economists "Ekonomika", 2018 - (Niš :  
"Medinvest"). 56 стр. - 24 cm

Dva puta godišnje.

ISSN 2560-421X = Economics of Sustainable  
Development

