I. THE GROWTH OF GREEN ECONOMY AS A PREREQUISITE FOR SUSTAINABLE AND BALANCED ECONOMIC DEVELOPMENT

TOWARDS SUSTAINABILITY IN THE "GREEN ECONOMY"-THEORETICAL OVERVIEW[2]

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"The world must quickly design strategies that will allow nations to move from their present, often destructive, processes of growth and development to sustainable development paths. (Ecimovic,et.al. 2013)

INTRODUCTION

The paper analyses the concept of "sustainable growth" in the context of "green economy". The concept is a recent one, emerging in literature since 2008. The new concept of economic development has emerged in recent years as necessary in the conditions of the economic crisis, when the prevailing model of economic growth failed to meet the increasing demand for consumption of limited resources and also as a result of a limited capacity of the ecosystem. Since this is a genuinely new approach to economic development, it is not surprising that there is not enough literature in this area yet. Consequently, there is no unique and generally accepted definition of green economy nor of the strategy of sustainable growth. This is reflected in the variety of economic policies concerning the green growth pursued by certain countries, ranging from those that deem it a priority goal to those that do not focus upon it at all. In answer to the lack of an integrated approach to these issues, the Green Growth Knowledge Platform (World Bank, 2012) was adopted. It is meant to serve as a starting point for research and understanding to what extent the new concept of sustainable growth within green economy has come into effect. In addition to the assessment of the

[2] This chapter is created as part of the project OI 179015 and 47009 II, funded by the Ministry of Education, Science and Technology of the Republic of Serbia.

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results achieved, it is also to determine the guidelines for further development of the green growth concept. Shortly upon its adoption, the Platform was promoted at the United Nations Summit, in mid-2012 (UNCSD 2012). Despite the efforts made by the international community to promote a new approach to economic development, the extent to which it will come into effect will depend on the governments of certain countries whose responsibility is to create conditions for sustainable growth on the path to a green economy. Namely,the transition to a green economy will vary considerably from one nation to another, as it depends on the specifics of each country's natural and human capital and on its relative level of development (UNEP,2011).

The first part of this chapter offers a short overview of the definitions of sustainable growth and green economy. This review of literature is to help understand the new concept of economic growth, but also its importance and what it is expected to be achieved through it. The subject of the following segment will be the review of how sustainability, equity and private sector in the "green economy" have been developed.

EXPLORING THE DEFINITION OF SUSTAINABLE DEVELOPMENT AND GREEN GROWTH

The concept of economic growth which also meets environmental objectives is not new (Jacobs,2012). However, this concept has attracted attention in scientific circles and opened new possibilities for a way out of the economic crisis after 2008. Namely, on the one hand, the economic crisis and the inefficiency of economies of many countries and, on the other hand, increased environmental risk as well as the growth of social inequality, have made a considerableimpact on the prevailing economic paradigm.

There is no universally agreed definition of "Sustainable Development" and "Green Economy". Besides, it is widely known that "sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (Ecimovic, et al., 2013). Sustainable development emphasizes a holistic, equitable and far-sighted approach to decision-making at all levels (UN,2011). It is based on the integration of social, economic and environmental objectives (Figure1).

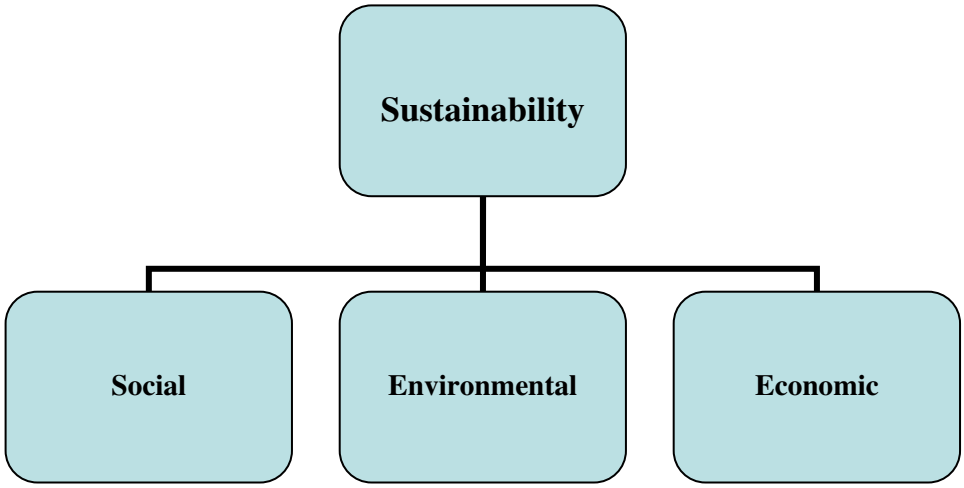

Figure1. The three pillars of sustainability

Source:Author

The Green Economy can be defined as an economy where economic prosperity goes hand-in-hand with ecological sustainability (Sam Min,2011). According to a number of experts,the green economy is the clean energy economy, consisting primarily of four sectors: renewable energy, green building and energy efficiency technology, energy-efficient infrastructure and transportation and recycling and waste-to-energy (Gordon and Hays, 2008; Cheerla, 2009; Maharaj et. al., 2012). The United Nations Environment Programme defined green economy as "one that results in improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities." (UNEP, 2011).

THE TRANSITION TO THE "GREEN ECONOMY" AND SUSTAINABILITY

Different schools of thought on sustainability and green economy have emerged. Among the first studies that dealt with the issues of sustainable development and green economy is one by Pearce (Pearce et. al., 1989). It has been followed by a large number of studies that are predominantly based on the Report of the World Commission on Environment and Development. The Report describes the notion of sustainable development as "development which meets the needs of current generations without compromising the ability of future generations to meet their own needs" (WCED, 1987). Many researchers in this area started from common premises, however, they came to strongly disagree as regards the effects of greening the

economy upon economic growth. Accordingly, there are opinions in literature that a compromise has to be reached between environmental protection and sustainable development. Contrary to such attitudes, there is an increasing number od research works that prove quite the opposite, namely, that "greening" the economy causes no negative effects upon either economic growth or employment. The initiative to green the economy shows that greening the economy is a new driver of growth that generates new jobs and contributes to poverty reduction. In accordance with the above, there is a growning number of propositions to create new conditions that would enable a gradual transition to green economy (UNEP, 2011). A number of experts, however, maintain that such conditions can be created only in highly developed countries; this will remain unattainable to the developing countries. In terms of adapting to climate change, economists maintain that richer countries will find it easier to act preventively due to having financial assets at their disposal, which will not be the case with poor countries. The latter will have difficulties in adapting, especially as regards the measures directly related to the latest technologies'."They have not enough money to invest in the environment" (Martinez-Alier,1995). This statement is supported by the opinion that there are many people in this world who are so poor that thinking about a more ecological and sustainable way of living is a luxury they cannot afford (Gehrke, 2012). Contrary to this perception, numerous examples of greening transitions can be found in the developing world (APGF, 2010). In other words, practice has challenged this myth showing that greening the economy is not a luxury but a necessity. "A green economy recognizes that the goal of sustainable development is improving the quality of human life within the constraints of the environment, which include combating global climate change, energy insecurity, and ecological scarcity" (APGF, 2010). Furthermore, it has been shown that it is necessary that economic research should be linked with the research in the fields of ecology and environmental protection in order to anticipate and mitigate the effects of climate change, soil degradation, greenhouse gas emissions and anything that is a threat to the future and survival of the global population. Namely, it is widely known that damages caused by natural disasters are numerous and can be manifested in various ways, inducing consequences for both the population and the states. They can primarily be manifested in the deterioration of soil structure (lower soil productivity) and exposure to new pests and plant and animal diseases. Consequently, we are faced with new challenges to plant and animal genetics and management (Radovic-Markovic and Grozdanic, 2013). Hence the issue of defining the potential short-term and long-term effects of climate change calls for permanent monitoring and analysis of these changes, which is to serve as basis for assessment of both the risk and the intensity of damage caused by natural disasters. Despite the fact that the research on the effects of climate change is already extensive, some aspects have to a great extent been the topic of mainly scientific analysis, while others have been paid less attention to (Radovic-Markovic and Grozdanic, 2013). In the first place, numerous issues and aspects of climate change effects have been analysed in a one-

sided manner. Namely, although climate changes are global in terms of their causes and consequences, it is evident that they do not affect everybody in the same way and that they differ among them, a problem analysed in the papers of numerous scientists (Curry, Weaver and Wiebe; Boykoff).

THE SUSTAINABLE DEVELOPMENT AND THE SUSTAINABLE FUTURE OF HUMANKIND

Ecological environment undergoes an accelerated change influenced by the population boom, the growth of megapolises and the change in the behaviour of the global population, which is all reflected in climate change.

In line with this, the world trend of urbanisation increasingly makes this problem more severe. "More than a half of the world population already lives in cities, with a tendency of further growth in the number of the world population of 3.1 billion people by 2050. By 2025, eight cities will have more than 20 million inhabitants, while 22 cities will have more than 10 million inhabitants each" (Loubières, 2010). However, in spite of a rapid global urbanization, the rural population of developing regions continues to grow (APGF, 2010).

Consequently, climate change alters the ecological contents. It is in this context that a need for a different and new approach towards available natural resources and human environment emerges. "The Age of globalization is asking for new – requisitely holistic – human eco centred - approaches and behaviour" (Ecimovic, et. al., 2014). According to Ecimovic, ''…a new approach is needed for a redirection of scientific work towards the needed knowledge and values capable of saving the nature, science, and the environment including the climate change system – for mankind to survive'' (Ecimovic, etal.,2012). Literature knows only few of such approaches, despite certain recorded attempts. Hence the scientist Ecimovic and a group of international experts were the first to draw attention to and highlight the importance of interrelation between mankind and the natural environment (Figure2).

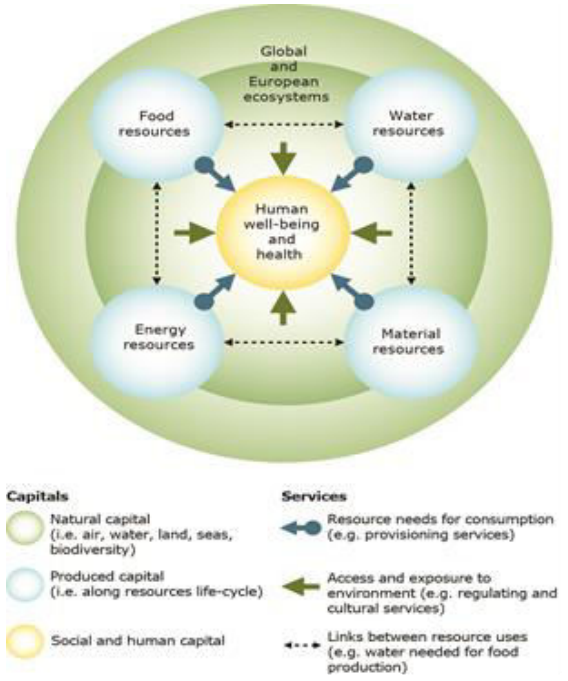

Figure2. Link between natural and material resources and their impact upon human well-being and health

Source: http://www.eea.europa.eu/themes/agriculture/greening-agricultural-policy/copy_of_Figure2GreeningtheCAP.jpg

''The sustainable development and the sustainable future of humankind as harmonious and complementary coexistence of the global community of humankind and the nature are among the not-mentioned contents'' (Ecimovic, et. al., 2014). In this context, balancing human demand for land and food with the need to protect the world's natural resources is a global challenge.

Critical objectives for environment and development policies that follow from concept of sustainable development include (Ecimovic, 2013):

1. Reviving growth;
2. Changing the quality of growth;
3. Meeting the essential needs for jobs, food, energy, water, and sanitation;
4. Ensuring a sustainable level of population;
5. Conserving and enhancing the resource base;
6. Reorienting technology and managing risk; and
7. Merging environment and economics in decision making".

In line with the concept of sustainable development,the green economy policies should be designed to reflect long-term social, economic and environmental public interests (Figure3).

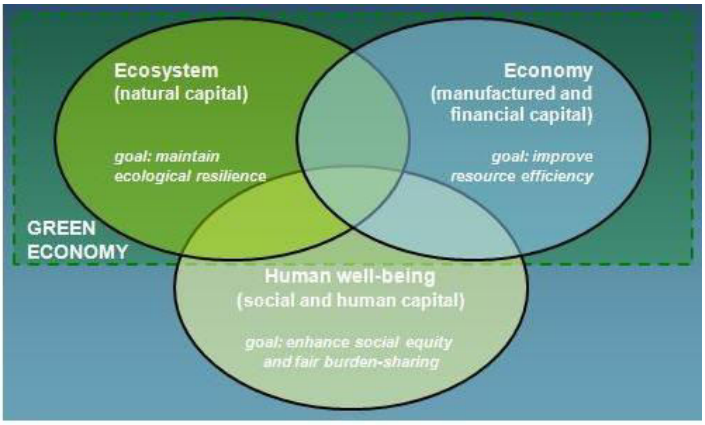

Figure3. Green economy and human well-being

Source: http://geoengineering2012.files.wordpress.com/2012/04/diagram.jpg

GREEN GROWTH AND PRIVATE SECTOR

"Innovation and entrepreneurship will be at the heart of the passionate progress needed to take the green economy from dream toward reality" (Barrell,2010).

Climate change poses not only a direct threat to individuals and communities, but also threatens the private sector, a key contributor to job creation, economic growth and poverty reduction. The creation of green jobs which can deliver environmental benefits as well as pathways to economic empowerment is of key importance. According to some research,it is expected that over 400 million people will join the workforce within the next decade and green jobs creation is thus seen as an opportunity to address this challenge as countries transition to green economies (UNDP, 2013).

Literature distinguishes between direct and indirect climate risks to the private sector (Coppock and Stephanie, 2004). According to a study conducted by the PWC (2010), the climate change will predominantly make an impact on agriculture, infrastructure and tourism (DCED, 2014).

The value of damages caused by adverse weather conditions rises simultaneously with the global warming process. The total economic expenditures caused by natural disasters have risen 5.3 times in the past years in comparison with the 1960s, while insurance-covered damages have become 9.6 times larger, primarily due to floods and storms, that is, disasters

caused by weather extremes (Njegomir and Markovic, 2009). In accordance with these statistical data, climate change is considered to be a major threat in terms of risks and damage, and consequently may be of major importance for the insurance industry in the years to come (Radovic-Markovic and Grozdanic, 2013).“Insurance will become more expensive and access to capital may be reduced. Market demand will also change as customers respond to climate change“ (DCED, 2014).

There is a perception that social entrepreneurship is a good solution to the management of climate change.These socially oriented enterprises have attempted to address social problems such as community development and environmental protection, among others. Examples include: crisis, pollution problems, clean drinking water, empowerment of women, human rights; educational opportunities, gender equality(Radovic-Markovic, 2010). According to our opinion, the global examples of social entrepreneurship show that it is possible to simultaneously successfully run a business and manage climate change. In this context, it is necessary that social economy enterprises and their role in tackling climate change should be promoted.

TOWARDS EQUITY IN THE “GREEN ECONOMY”

Green economics seeks to include the perspectives of those who are marginalized within the present economic structure — primarily women and the poor of the world— as well as take seriously the needs of the planet itself (Cato, 2009). Namely, since women constitute the majority of the world’s poor and are comparatively more dependent on scarce natural resources, it is they in particular who suffer from these effects and the repercussions of climate change (DCED, 2012). In addition, the literature on the topic offers few articles that investigate the effects of climate change viewed from the gender perspective (Radovic-Markovic and Grozdanic, 2013). This perspective cannot be ruled out given that women all around the world are largely subject to adverse effects of natural disasters. “Women and the poor in the developing countries are most exposed to climate change. They are especially sensitive to the degradation of the ecosystem and to natural disasters since they are more dependent on agriculture and their socio-economic status is lower in comparison with men“ (Radovic-Markovic, 2010). Climate change affects the production of women farmers in transition countries as the women most often work in agriculture and food production and are considerably less engaged in non-agricultural activities. For example, African women farmers produce up to 90% of the continent's food, although women own only about 1% of the land (Radović-Marković, 2010a). The agricultural extension services have been one way in which innovative practices are disseminated in rural areas, but there are often problems with sustainability and variability in local

adoption (Walker, 1990). Namely,women are less adapted to changes than men due to a lot of obstacles. Successful adaptation depends on factors such as local institutional arrangements, availability of finance resources, information exchange, instruments to collect data and technological change (Radovic-Markovic, 2010). We also point out that women in rural areas lack the knowledge on the environment disasters. In other words, their skills and knowledge do not correspond with the skills needed in the emerging green economy, which constitutes another obstacle. There is also a lack of information and instruments to collect data, lack of financial resources to combat climate changes and women are not engaged enough in developing social strategies on climate change risks.In this context, "..... investments are required in human capital, including green-related knowledge, management and technical skills to ensure a smooth transition to a more sustainable pathway" (NGLS, 2009).

CONCLUSION

Exposure to natural disasters will in the near future have important bearing on the public policies in the fields of health, biodiversity, as well as of important economic sectors: water resources, agriculture, forestry, energy supply and tourism. It will also affect the growth of costs incurred by these natural disasters. In this context, in order that the costs of natural disasters and climate change induced ecological, economic, social and geopolitical risks should be reduced, it is necessary that preventive steps should be taken, economists maintain (Radovic-Markovic and Grozdanic, 2013).

Many data suggest that transitioning to a green economy has sound economic and social justification.Greening the economy refers to "the process of reconfiguring businesses and infrastructure to deliver better returns on natural, human and economic capital investments, while at the same time reducing greenhouse gas emissions, extracting and using less natural resources, creating less waste and reducing social disparities"(Maclean, Akoh and Egede-Nissen, 2011). Namely,in a green economy, growth in income and employment is driven by public and private investments that reduce carbon emissions and pollution, enhance energy and resource efficiency, and prevent the loss of biodiversity and ecosystem services (UNEP, 2011). In line with this,the concept of "green economy" does not replace sustainable development. Quite the opposite, these two have to be closely linked. It means that the sustainable development should suppport environmental sustainability, economic growth, and social equity among peoples. However,the time distance from the promotion of this concept is rather short, nevertheless, there is already evidence of obstructions to it by certain interest groups who do not support the vision of this new economy.

In the end, it can be concluded that the literature on green growth and environmental management is of a general character in its nature.In addition, more research is needed on how disasters and climate changes impact the social structure and gender.

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