

Proceedings

Green Economy and Green Growth—Opportunities for Sustainable Development †

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† Presented at the 14th International Conference INTER-ENG 2020 Interdisciplinarity in Engineering, Mureș, Romania, 8–9 October 2020.

Published: 22 January 2021



Abstract: Economic activities are increasingly carried out in modern conditions, a situation which is often linked to a negative impact on the environment. They have now reached such a level that they can be considered a real factor in climate formation and modeling. Such a trend has generated a lot of initiatives and strategies aimed at a green economy development. Thus, special public policy measures for the green economy and green growth have been developed and also implemented in the last few years. The analysis of the main challenges in the field of economic and environmental development, as well as the public policies for a green economy, is a real concern. More and more, the global trends for sustainable development are represented by green economy and green growth. The purpose of the present article is to present and analyze the issue of green economy and green growth, which is a new operating strategy both globally and European level. Green growth represents a practical tool for achieving the objective of sustainable development, as a timeless objective. This means fostering economic growth and development, while ensuring that the natural assets continue to provide environmental resources and services. We will try also to systematize the main challenges in the field of economic and environmental development, taking into account their specific characteristics, and to provide relevant suggestions for public policies related to reducing the impact of economic activities on the environment. Additionally, particular attention is focused here on establishing the kind of relationship that occurs between the green economy, green growth and sustainable development. In this regard, we will analyze the purpose of the simultaneous functioning of these three green ideas. We consider that the co-existence of the three green ideas (green economy, green growth and sustainable development) is reasonable due to the complementary and simultaneous nature of these concepts.

Keywords: green economy; green growth; sustainable development; economic activities

1. Introduction

Towards the end of the twentieth century, the so-called consumer society has been installed, which correlates with the population growth trend, the intensification of the urbanization process, the development and diffusion of information and communication technology, the progressive increase of the population's standard of living, but also with the significant reduction of natural resources and product life cycle ([1] pp. 22–24). These realities overlap with political and legislative initiatives and projects designed to contribute to the reduction of environmental risks and sustainable development without environmental degradation. Thus, the concept of ecological economy also known as the green economy begins to take shape and consolidate.

The complex, difficult and absolutely necessary process of transition to a green economy is correlated with the reconsideration of unsustainable consumption and production patterns, in order to identify future development opportunities. In this sense, the adoption and implementation of the 2030 Agenda for Sustainable Development (which will be referred to in our paper as “The 2030 Agenda”) recently took place. In this regard, Goal 12 of the 2030 Agenda establishes the need for the integrated promotion of environmental, social and economic elements. It is aimed to ensure sustainable consumption and production patterns.

Developing global commitments and initiatives to reduce and manage waste, use resources efficiently, reduce pollution and combat the effects of climate change have been the main drivers of the green economy. The involvement of stakeholders in the consultations that took place in the High-Level Political Forum on Sustainable Development or in other international organizations, were synergistic actions with an important role in promoting and transitioning to the green economy. All the debates on the role of the green economy and, implicitly, of sustainable development in recent years, have ended with the approval at the European level of ambitious action plans and strategies, which have been the engine of the transition to a green economy.

The European path of the green economy is an ascending one, which came as a concrete answer to the complex environmental problems manifested in recent years. The challenges associated with the green economy involve political commitments to the green economy, the development of resource efficiency standards, the financing of innovation and research in the development of new technologies, and the promotion of information initiatives.

We can say that the green economy represents a system of economic activities of production, distribution and consumption associated with sustainability, a system correlated with the process of eliminating the dysfunctions generated by economic growth. It also indicates a type of economy that generates welfare and social equity, correlated with the significant reduction of environmental risks and ecological deficit. It is the type of low carbon economic progress conducive to environmental sustainability and inclusive social development, which defines green growth.

Most authors and specialists in the field, consider that the green economy phenomenon represents a field in economic science and also in economic practice which justifies the dependence of economic development on the environmental natural factors. So, in scientific terms, the green economy implies the development of new technologies and clean industries and, in practical terms this involves those types of activities that create and increase the natural capital and reduce environmental hazards and risks [2].

The concept of the green economy has an evolutionary character ([3] pp. 361–363), and it was used for the first time in 1989, in the Blueprint for a Green Economy report prepared for the United Kingdom Government by a group of economists in the field. Since October 2008, the United Nations Environment Program (UNEP) has launched the Green Economy Initiative, with the aim of supporting investment in the green sector as well as greening certain sectors, which is a real way to achieve sustainable development. Following the 2012 World Conference on Sustainable Development entitled Rio+20, the idea for an inclusive green economy was grounded. The term inclusive green economy and its associated concepts (green growth and sustainable development) have evolved from initial research to the present. This type of economy is based on efficient and low carbon consumption in the production process ([4] pp. 142–145), being an inclusive economy in terms of consumption and results that is based on sharing, circularity, collaboration, solidarity, adaptability, opportunity and interdependence.

In terms of the green growth, it can be said that this implies a concept which describes a form of economic growth that uses natural resources in a sustainable manner. In fact, this term is increasingly used globally to provide an alternative concept to classical industrial economic growth. This would lead to the green economy phenomenon, which is a real phenomenon of progress and a concept of environmental security ([5] p. 2, [6] pp. 1–10).

In the current global context generated by the Sars2 Covid-19 coronavirus pandemic, the concept of green growth is often used to describe those national, regional or international strategies, that promote economic recovery from the coronavirus recession ([7] pp. 3–5).

All debates and analyses on the opportunities of the green economy are directly associated with environmental protection, increasing competitiveness, innovation and technological research. Numerous initiatives have emerged on a European level in order to support the implementation of the green economy and green and sustainable development. Thus, The European Enterprise Network includes over 600 organizations from over 60 countries in order to support SMEs for the access of funding opportunities for eco-innovation, energy efficiency and access to resources. Concerning resource efficiency—using natural resources in a sustainable manner with a considerable reduction of the impact on the environment—a part of the Europe 2020 Strategy is represented by The Resource-Efficient Europe Flagship Initiative, which represents the European Union’s growth strategy for a smart, inclusive and sustainable European economy.

Starting from the concept of the green economy, this implies by its definition, a direct reference to improving the quality of life and social equity and also the need to reduce environmental risks and the ecological deficit.

From this perspective, the transition to such an economy raises an interpretation in terms of resource efficiency through the implementation of innovative approaches designed to optimize resource consumption and reduce pollutant emissions. Alternatively, it requires a sustainable approach to resources, ensuring the preservation of natural capital, the resilience of ecosystems while also ensuring social inclusion.

Internationally, the concept of the green economy is frequently used in connection with a number of initiatives. In this regard, we recall the Paris Agreement, signed at the XXI Conference of the Parties (COP 21) to the United Nations Framework Convention on Climate Change, which marked a historic moment of global action to reduce global average temperature increase of 2 °C, being the first legally binding multilateral instrument in the field of climate change, starting in 2020. Additionally, the Batumi initiative in Georgia on the green economy (BIG-E) from 2016 (an initiative belonging to UNECE and carried out through the Green Growth Knowledge Platform) represents a pan-European strategic framework for the transition to an inclusive green economy, with thematic areas such as investment in innovation, the transfer of green technologies and products, and the stimulation of sustainable consumer behavior. At the same time, it proposes voluntary commitments until 2030, in order to contribute directly to the objectives of sustainable development. In this context we can mention other important initiatives in the area of the green economy, such as: The Green Growth Knowledge Platform (GGKP) (GGKP is a global network of international experts and organizations, established in January 2012 by the Global Green Growth Institute (GGGI), the Organization for Economic Co-operation and Development (OECD), the UN Environment and by the World Bank), which is a global network of international experts in the field of the green economy who meet annually at conferences that are dedicated to this platform; The Partnership of the United Nations for Action on Green Economy (PAGE), launched in 2013 to support countries involved in implementing a green economy approach; The Green Industry Platform, an international platform for green industry stakeholders, initiated by UNIDO at the Rio+20 Environment Conference; The Sustainable Technology Marketplace (WIPO Green), an initiative of the World Intellectual Property Organization to support the adoption and implementation of environmental technologies in emerging economies; the EaP GREEN regional program, to support the six Eastern Partnership countries towards a green economy by decoupling economic growth from environmental degradation and resource depletion, implemented in 2013–2017; The EU Switch to Green Facility, a platform that facilitates cooperation to increase international progress towards the transition to a green economy in the European Union and partner countries.

The perspectives offered by the green economy strengthen the comprehensive and unitary approach to sustainable development, with the common denominator of environmental protection, increasing the competitiveness and productivity of the resources available to an economy.

The transition to a green economy is a medium and long-term process that involves a political commitment of states that want to change the model of their economic development. This process involves initiatives related to public involvement in implementing a green approach in national policies (renewable energy, energy efficiency of buildings, technologies and processes with low GHG emissions), the promotion of environmental footprint ([8] pp. 121–132) and the development of banking services and green investment.

Along with the final document of the Conference on Sustainable Development (Rio+20), which promoted the idea of green economy and sustainability [9], the 2030 Agenda for Sustainable Development adopted at the UN Summit on Sustainable Development (New York, September 2015) is a commitment to achieving sustainable development by 2030, worldwide. The implementation process of the 2030 Agenda prioritizes the need for integrated promotion of environmental, social and economic elements as well as the need to identify solutions to the challenges of the process of reconfiguring the classical economic model.

As far as we are concerned, we consider that Goal 17 of the 2030 Agenda has played an important role in raising public awareness regarding the green economy. Thus, the Ministerial Declaration elaborated on the occasion of the High-Level Political Forum on Sustainable Development (HLPF 2018) shows that decoupling economic growth from resource use continues to be a challenge. Therefore, promoting resource efficiency must be done following a cycle-based approach of product life, in order to reduce the use of resources, starting with the extraction and production phases, by reusing and recycling, through the implementation of technological innovations and standards (Declaration No. E/HLS/2018/1).

2. The European Framework of the Green Economy

Since the beginning of 2015, an ambitious action plan on the green economy has been adopted at the EU level, with the aim of stimulating the transition to a competitive Community economy, so as to accelerate sustainable economic growth. The Communication of the European Commission of September 2017 entitled “Investing in a smart, innovative and sustainable Industry. A renewed EU Industrial Policy Strategy” (COM (2017) 479), is aimed to strengthen the capacity of industry to adapt to the requirements of developing new digital technologies that will allow the transition to a green economy [10,11]. The aforementioned document states that stimulating the use of smart technologies throughout industrial value chains linked to low carbon dioxide is essential for increasing competitiveness. Part of the European framework for the transition to the green economy is also the eco-design regulations (these are Directive 2009/125/EC (Directive 2009/125/EC establishing a framework for the setting of eco-design requirements for energy-related products, published in the Official Journal of the European Union No. L 285/10 from 31 October 2009) ([12] pp. 162–176) and subsequent vertical regulations), as well as the Eco-design Working Plan for 2016–2019.

According to Eurostat data (Eurostat 2018 a, Resource productivity statistics; Eurostat 2018 b, Resource productivity up in the European Union), at the level of the Member States of the European Union, the domestic consumption of raw materials in 2010 was of about 14 tons per capita, while in 2017 it decreased to 13 tons per capita. At the same time, at a European level, it is noted that resource productivity increased by about 40% in the period 2002–2018, even though domestic material consumption (DMC) decreased due to the economic crisis of 2008, which significantly affected the metallurgical industrial sector.

Regarding Romania, the official Eurostat data shows that, in 2017, the domestic consumption of materials used directly in the economy was about 485 thousand tons of materials, an almost twice lower consumption level than that of Germany. In other EU Member States, the highest resource productivity in 2018 was recorded in Italy, the Netherlands, Luxembourg and Spain, and the lowest resource productivity was scored in Bulgaria, Romania, Latvia and Finland. Definitely, the amount of resources used in an economy is essential in sustainable development, from the extraction of resources

needed for production and consumption activities to materials released into the environment in the form of pollutants.

According to the EU Scoreboard on Resource Efficiency in 2017, our country has the largest increase in consumption of natural resources in Central and Eastern Europe (the per capita consumption which has increased with 180% in the last 15 years). Of course, such a percentage, which indicates that we are deficient in increasing the productivity of resource use, requires both a reduction in the gap with other EU Member States and a boost to business development in the green economy. That is why, the challenge is firstly represented by minimizing the loss of resources that can be reintroduced into the economic circuit, and secondly, by changing the mentality of those interested in promoting ecological behavior. A successful economy requires the efficient use of natural resources and waste, and protection and sustainable development of the environment [13].

This relatively new concept, the green economy, associated also with social inclusion and low greenhouse gas emissions, involves certain categories of opportunities. Thus, we distinguish between the economic opportunities, materialized in the recycling capacity for certain fields and green acquisitions, the legislative opportunities, in the form of the community acquis that is required to be transposed at a national level, the social opportunities, which involve job creation, and last, but not least, the structural opportunities, involving applied education and innovation. Regarding this aspect, we feel obliged to specify that these opportunities are hit by a number of limitations, of an economic nature (such as the lack of funds for innovation and infrastructure and low purchasing power), legislative limitations (the incomplete transposition of European legislation the national legislation of the Member States), social constraints (poverty and the low level of awareness of the population), as well as structural limitations (uneven application of the legislation and the lack of specialized personnel in the public administration).

Considering these realities, certain public policy recommendations are required, especially regarding the legislative component, but also recommendations regarding the educational component. With regard to the legislative component, in our opinion, it is necessary to promote a national plan for efficient and sustainable production and consumption and to develop an appropriate legislative framework for the green economy, which requires the development of green economy plans at local or regional level (this has been done successfully by countries such as Finland, Sweden and Germany, which have adopted national resource efficiency programs). It is also necessary to initiate public debates on the appropriateness of developing new national standards for resource efficiency as well as an integrated approach to identify market opportunities and evaluate legislative initiatives. In the same direction, we appreciate that the promotion of ecological design principles is also needed. This can be accomplished by promoting sustainability models of products in the industry, correlated with modern taxation systems, as well as promoting operators' access to information on hazardous substances and establishing standards for the prevention and reduction of food and household waste (updating Law No. 217/2016, on reducing food waste, and supplementing it with a standard of clear definition of the criteria for cessation of waste status and transformation into a by-product, which can be composted and used later in agriculture or for biogas). It would also be relevant to promote the extension of the average duration of products through consumer protection legislation ([14] pp. 7–12) and also to revise the law on green public procurement and waste management regulations by promoting the concept of efficient and sustainable use of resources.

Now, humanity is facing a great problem that has become a real crisis. It is about the crisis caused by the Covid-19 pandemic, a topical issue that is aggressively transforming the way we live. We notice in this context that, while all interventions are largely focused on protecting people's lives and economies, for the moment, the big issue of waste management remains a secondary one. However, the management of this hazardous waste must be essential to minimize the long-term risks to environmental and human health. The global dynamics of solid waste generation is changing now, taking into account the fluctuations of the composition, quantity and high degree of contamination of those types of waste [15].

The current public policy recommendations include educational, research and communication components. In our opinion, the promotion of education for sustainable development ([16] pp. 9, 73–83), the adoption of sustainable lifestyles and the promotion of good international practices on the green economy is absolutely necessary and can be achieved by initiating specific steps (such as the development of an informative guide with good practices and resource consumption optimization solutions; creating a national information platform on resource efficiency; initiating online information campaigns). It is also necessary, for example, to promote exchanges of experience or cross-border initiatives to implement best practices on the green economy at the level of local public authorities.

3. The National Framework of the Green Economy: Actualities and Perspectives

In regard to the green economy field, Romania has implemented at a national level relevant normative acts, which achieve synergies with this type of economy. In this context, we recall the implementation of the regulations contained in Directive 2012/27/European Parliament and of the Council on Energy Efficiency, consolidated in 2020 (Published in the *Official Journal of the European Union*, L 315 from 14 November 2012, pp. 1–56, it was transposed through Law No. 160/2016 for the amendment and completion of Law No. 121/2014 on energy efficiency) as well as those belonging to Directive 2009/125/EC establishing a framework for the setting of eco-design requirements of energy impact products, consolidated in 2012 (Published in the *Official Journal of the European Union*, L 285 from 31 October 2009, pp. 10–35, transposed into national legislation by GD No. 55/2011, completed by GD No. 580/2011 and GD 1090/2013). The mentioned regulations were also aimed at achieving an energy saving of 1.5% by the final consumers in the period between 2014 and 2020. Another relevant regulation in the field is the Emergency Ordinance No. 24/2017 on amending and supplementing the law establishing the system for promoting the production of energy from renewable energy sources transposing Directive 2009/28/EC on promoting the use of energy from renewable sources, consolidated in 2015 (Published in the *Official Journal of the European Union*, L 140 from 5 June 2009, pp. 16–62). Additionally, Regulation (EC) No. 834/2007 of the Council of Europe on organic production and labeling of organic products, amended and consolidated in 2013, was applied at the level of Romanian legislation.

We mention in this context the Government Decision No. 739/2016 for the approval of the National Strategy on Climate Change and Economic Growth based on low carbon emissions for the period 2016–2020 and the National Action Plan for the implementation of this Strategy, as well as Government Decision No. 594/2018 on the National Strategy for Green Jobs for the period 2018–2025. In our opinion, it is necessary to update Romania's industrial policy for the 2030 perspective, by updating the regulations on the bio economy as well as those contained in the law on green public procurement by including references on the circular economy.

However, in addition to the regulatory issues, we consider that for Romania, the structural and cohesion funds are important for the implementation of the concept of efficient use of resources and the concept of green economy. That is why the proposal for the new post-2020 multiannual financial framework is an opportunity, aiming at an 8% increase in cohesion funds in the future multiannual budget (respectively, from 25.2 billion euros in the period 2014–2020 to 27.2 billion euros for the period after 2020).

Certainly, the consideration of introducing new lines of financing for the green economy is an important step and a clear signal of political commitment at the national level.

4. Final Conclusions

It is a reality that, during periods of economic growth more resources and energy are consumed and more waste is produced, affecting the environment. Ideally, obtaining a higher economic value from a limited quantity of natural resources should generate a significantly higher economic growth than the percentage of the use of national resources. This resource efficiency is a topic related to

the ability to generate cost savings and implement new technologies that are able to streamline economic processes.

This approach goes beyond the scope of environmental protection and becomes a holistic issue in synergy with industrial policy, competitiveness policy, research and innovation but also with education. The green economy can also be associated with the sharing economy, with peer-to-peer and mesh economy, as well as with no-growth economy, as a policy strategy for responding to the limits of economic growth correlated with the decrease of natural resources.

In view of such issues, this paper seeks to provide some answers to the conceptual interrelationships between the green economy, green growth and sustainable development, through a harmonious blend with developments in the green economy at international, European and national levels. In order to better promote the green economy in Romania, we tried to advance some policy recommendations related to certain sectors.

The green economy is closely linked to the circular economy and increasing competitiveness, bringing with it not only benefits but also challenges for all stakeholders. In our opinion, the optimal use of natural resources also implies the existence of an electronic data transfer and reporting system based on an efficient infrastructure collection. Moreover, identifying sustainable solutions for optimizing resource consumption is an important goal at European level.

Developing collaborative partnerships and new sustainable business models that promote the efficient use of natural resources can also be the key to a green national economy. A positive signal that can be sent to the economic environment also aims to encourage the development of new skills as well as to consult stakeholders in promoting the transfer of human capital taxation to the taxation of natural resource consumption.

The green economy can determine opportunities for green and sustainable development, an aspect that implies an active involvement at the level of public policy and at the level of implementation in the territory. We have shown that, for the construction of a national model of green economy, the existing good practices at international and community level play an essential role.

We also consider other important issues as being important, such as the increase of decision-making transparency and the involvement of stakeholders through direct access to data and information, so that the creation of an electronic platform for industrial symbiosis could contribute as an example of good practice. At the same time, for the implementation of the green economy, a firm political commitment on several levels is required. In other words, a central coordination and an involvement of all public authorities and the private environment are necessary.

Funding: This research received no external funding.

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