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**GREEN GROWTH AND GREEN ECONOMY
– THEORETICAL BASIS, STARTING POINTS
AND NEW CHALLENGES**

Summary

The need to maintain economic growth and development is, in the current conditions, coupled with the need to maintain a quality environment and quality of life. Individual economies are transforming their production and consumption patterns towards a circular economy, carbon neutrality and the elimination of the negative impacts of climate change, with the aim of conserving resources, in the light of the principles of sustainable development. In this paper we focus on the green growth and the green economy, as a current and the preferred concepts on the road to sustainability. The main objective of this paper is to review the theoretical approaches to the concepts of green growth and green economy. To achieve the main objective, an analysis of documents and sources declaring different approaches and ways to presenting the green growth and green economy was used. This article presents views on the common points of convergence, divergence and directions of development of green concepts, using the literature sources.

Key words: green growth, green economy, sustainable development.

ZIELONY WZROST I ZIELONA GOSPODARKA – PODSTAWY TEORETYCZNE, PUNKTY WYJŚCIOWE I NOWE WYZWANIA

Streszczenie

Konieczność utrzymania wzrostu oraz rozwoju gospodarczego łączy się w obecnych warunkach z koniecznością zachowania jakości środowiska i jakości życia. Poszczególne gospodarki przekształcają swoje wzorce produkcji i konsumpcji w kierunku gospodarki o obiegu zamkniętym, neutralności węglowej i eliminacji negatywnych skutków zmian klimatu, mając na celu ochronę zasobów, w świetle zasad zrównoważonego rozwoju. W niniejszym artykule skupiamy się na zielonym wzroście i zielonej gospodarce, jako aktualnej i preferowanej koncepcji na drodze do zrównoważonego rozwoju. Głównym celem artykułu jest przegląd teoretycznych podejść do koncepcji zielonego wzrostu oraz zielonej gospodarki. Aby osiągnąć główny cel, wykorzystano analizę dokumentów oraz źródeł deklarujących różne podejścia i sposoby przedstawiania zielonego wzrostu oraz zielonej gospodarki. Artykuł przedstawia poglądy na temat wspólnych punktów zbieżności, rozbieżności oraz kierunków rozwoju koncepcji zieleni, korzystając ze źródeł literaturowych.

Słowa kluczowe: zielony wzrost, zielona gospodarka, zrównoważony rozwój.

Introduction

Sustainable development is such development of a human society that harmonizes economic and social progress along with keeping the full value of the environment (Adamišin, Vavrek, 2014). The European Union is one of the major global players in the field of environmental protection and sustainability policy and increasingly addresses issues such as human well-being, global justice, and the aforementioned sustainable development. However, the evolution of the EU treaties shows disputes over the meaning of sustainable development and its context to economic development or growth, and the extent to which sustainable development points beyond classical growth remains controversial, both in academia and politics (Pollex, Lenschow, 2018). The main dilemmas related to the conceptualization of the term of sustainable development include, among other things, doubts regarding the possibility of fulfilling the basic assumption for the equivalence of all areas (economic, social and environmental) of sustainable development in practice. It should be noted that countries of different degree of civilizational development do not pay the same amount of attention to the individual areas of sustainable development. The wealthier countries, where the socio-economic development reached the desired level, can pay more attention to the aspects related to the protection of the natural environment, as opposed to less developed countries or even poor ones (Szopik-Depczyńska et al., 2018). Zylicz presents sustainability as is one of the most popular concepts analysed in social sciences that has also been present in the language of politics. Its popularity is not equivalent to its firm understanding. Yet there are many types of sustainability, including its "strong" and "weak" versions studied in economics. But there is an additional important aspect, namely fighting the stereotype that identifies economic development with the growth of material consumption. As long as people associate progress with a growing consumption of inputs, environmental pressure is not likely to be stopped. Directing people's innovativeness and entrepreneurship at maximising commercial effects from a limited pool of natural resources may enable sustainable welfare (Zylicz, 2021). Along with that, modern models of global economic

development cannot take into account all the results of complex causal relationships between economic assets and natural capital, while ensuring their effective use and reproduction. On the other hand, the limitation or apathy of the implementation of natural capital conservation measures will inevitably lead to an increase in its replacement costs (Kovalchuk, Kravchuk, 2019). The appropriate construction of sustainable development system is an important basis for the scientific assessment of the coordinated development of economic, social and environmental conditions at both global and local levels (Huang, Cui, Cao, Yu, 2018). In the search for environmentally sustainable economic paradigms, a broad-based debate on sustainability within the EU and economic networks has developed a green growth approach. The concept of green growth offers an opportunity to measure progress towards sustainability.

1. Green growth and green economy – common overlaps, differences and particularities

The recent report of the Over the last decade, green growth policies have drawn increasing interest. OECD, UNEP, the World Bank and the EC have had several initiatives on the issue, and the Nordic countries have a special program on it (Stoknes, Rockström, 2018). The OECD Ministerial Council in 2009 accepted a Green Growth Strategy. This strategy supports economic growth and development while ensuring that natural resources continue to provide ecosystem services, thanks to which human needs are met and welfare guaranteed. Achieving the aim requires elevated investment support, economic competition, and innovation, which will support sustainable growth and enable the creation of new economic opportunities. Green Growth combines economic and environmental context. The OECD, the creator of the concept, states that the transformation to green growth requires accelerating investment and innovation that will support sustainable growth and enable the emergence of new economic opportunities, understanding, but also awareness of the value of natural capital (Darmo, 2011; Guštafiková, Kostúriková, Lieskovská, 2019; Kanianska, Jaďud'ová, Marková, 2017; OECD, 2011). Compared to Sustainable Development, the Green Growth Strategy is more explicit and represents a viable policy framework generating new and greener growth resources at present and in the future. The role of Green Growth is not to replace the concept of Sustainable Development (SD), which has a long-term character (Green Growth and SD, Enviroportal), but to propose another way for achieving sustainability (Enviroportal).

However, The United Nations Environment Programme (UNEP) does not discuss Green Growth, but the transition to a green economy – the one that improves human welfare and social justice at the current significant reduction of environmental risks and deficiencies (Towards Green Economy: Pathways to Sustainable Development and Poverty Eradication. UNEP In: Darmo, 2011). The UNEP emphasizes the necessity of sustainable development – economic, environmental, and social. The green economy should be low-carbon, resource-efficient, socially inclusive, preventing biodiversity loss and ecosystem services loss (Darmo, 2011). The nature of the green economy is the way we produce and consume goods and services (Petrášová, 2015). The concept of a green economy has gained importance with the implementation of anti-crisis programmes related to the creation of new development frameworks for individual countries. The concept of the green economy (has gained prominence as a result of the economic crisis, which began in 2008. Its origins, however, date back to 1989, when it was first used in

the report 'Blueprint for a Green Economy' (Szyja, 2014). According to the green growth concept of the Organization for Economic Cooperation and Development (OECD), the promotion of economic growth and development should be carried out under the condition of preserving natural assets and uninterrupted provision of ecosystem services on which our well-being depends (OECD). It follows from this definition that the green economy is the engine of economic growth. The analysis of the existing terminology has shown that the essence of the green economy is not limited only to growth (Table 1). The green economy is considered as a process of transforming dynamic progress, promoting economic and environmental goals, minimizing the impact of economic activity on the environment, developing an efficient economy, etc. (Ospanova, Popovychenko, Chuprina, 2022).

Table 1

Main definitions of green economy and green growth

Definition	Author(s)
The green economy is an economy that should come to the aid of environmental policy. The essence of the green economy has not been revealed.	Pierce, Barbier, Markandia, 1991
The green economy is an economic activity related to the production, distribution and consumption of goods and services that lead to an improvement in the well-being of people in the long term, at the same time, without exposing future generations to significant environmental risks and reducing the shortage of environmental resources.	UNEP, United Nations Environment Programme, Green Economy Initiative, 2011
The green economy is the economy where the growth of the people's welfare and employment increase are provided owing to the state and social investments ensuring reduction of emissions and environmental pollution and stimulating effective use of energy and resources as well as preventing from any harm to biodiversity and ecosystem.	Diyar et al., 2014
A green economy is an efficient economy based on low-carbon development that leads to improved human well-being and social justice, while significantly reducing environmental risks and preventing the loss of biodiversity.	UNEP Summary report for representatives of government structures in Nairobi
A green economy is an economy that seeks long-term social benefits in short-term activities and leads to improved human well-being and reduced inequality, without exposing future generations to significant environmental risks and environmental deficits.	UNCTAD, United Nations Conference for Trading and Development
The green economy is an economy that includes new sectors of the economy and should become an important starting point for large-scale economic empowerment, meeting the needs and providing opportunities to enterprises that pay more attention to social development.	Government of South Africa
A green economy is a sustainable, resilient economy that provides a better quality of life for everyone within environmental constraints.	Green economy coalition, 2010
A green economy is an economy in which economic growth and environmental responsibility mutually reinforce each other, while simultaneously supporting progress and social development.	International chamber of commerce, 2012
A green economy is an economy that focuses on using opportunities to simultaneously advance economic and environmental goals.	United Nations commission on sustainable development

A green economy is an economy in which public and private investments are carried out in order to minimize the impact of economic activities on the environment and where market problems are eliminated through proven policies and legal frameworks aimed at systematically taking into account the state of ecosystems, managing associated risks and stimulating innovation.	European Bank for Development and Reconstruction
Green economy is an economy in which environmental, economic and social policies and innovations support societies in the efficient use of resources while improving human well-being, emphasizing social inclusion and protection of natural systems sustaining life on earth.	European Environmental Agency, 2012
An inclusive green economy creates the conditions for combining the social, economic and environmental objectives of sustainable development, benefiting poor and vulnerable groups and reducing inequalities.	Poverty Environment Partnership, 2012
The green economy is a low-carbon, resource-efficient economy that delivers growth, creates jobs and eradicates poverty by investing in and protecting the natural capital on which the long-term survival of the planet depends.	European Commission, 2011
Green growth means fostering economic growth and development, while ensuring that natural assets continue to provide the resources and environmental services on which our well-being relies.	OECD, 2011

Source: The essence of the concept Green Economy (Pearce, Barbier and Markandya, 1991; UNEP, 2009, Nairobi, 2011; The green economy, 2011; A guidebook to the Green Economy, 2011; ICC, 2012; Building an Equitable Green Economy, 2013; Green economy transition approach, 2013); in: „Green Economy – Vector of Sustainable Development”, A. Ospanova, I. Popovychenko, E. Chuprina, 2022, *Problemy Ekorozwoju*, 17(1), s. 171-181; „Green Economy Themes: Pathway to Sustainable Urban Development”, M. Refaat, M. Abdelaal, I. Sallam, 2019, *ARChive*, 3(2), s. 38-47.

There is no internationally agreed or preferred definition of green growth. Individual perspectives on green growth reflect changes, but also reflect current global challenge. Definitions and indicator sets have been developed, though critics have pointed out that most initiatives amount to little more than a greenwashing of conventional economic growth. There are two definitions of green growth, one weak and one strong. Both build on resource and carbon productivity measures, but whereas the weak definition requires absolute decoupling, the strong or “genuine green growth” requires sufficient decoupling to achieve science based targets for planetary boundaries (Stoknes, Rockström, 2018).

Economic growth in the context of the formation of a holistic sustainable economic form that will allow bringing civilization to a new level of development should be understood as such growth, which is achieved not only through technology but, to a greater extent, through the use of human capital. It is possible to present green economy as an engine of economic growth which determines the state of the triad of sustainable development and involves focusing efforts on the implementation of sustainable development goals (Ospanova, Popovychenko, Chuprina, 2022).

Green growth can be one of the pillars of sustainable development, and green economy is one of the three main planes of this concept already developed earlier, mainly since the early 1970s. However, the two terms, “green economy” and “green growth”, contain common elements and their differences have gradually blurred and have often been used interchangeably. This was also due to the search for an integrated approach combining all elements and planes of the concept of sustainable development, to which both concepts were closely related (Adamowicz, 2022). A green growth strategy is, according Kanianska (2017), centred on mutually reinforcing aspects of economic and

environmental policy. It takes into account the full value of natural capital as a factor of production and its role in growth. It focuses on cost-effective ways of attenuating environmental pressures to effect a transition towards new patterns of growth that will avoid crossing critical local, regional and global environmental thresholds. Innovation will play a key role. Green growth has the potential to address economic and environmental challenges and open up new sources of growth through the following channels:

- Productivity – Incentives for greater efficiency in the use of resources and natural assets: enhancing productivity, reducing waste and energy consumption and making resources available to highest value use.
- Innovation – Opportunities for innovation, spurred by policies and framework conditions that allow for new ways of addressing environmental problems.
- New markets – Creation of new markets by stimulating demand for green technologies, goods, and services; creating potential for new job opportunities.
- Confidence. Boosting investor confidence through greater predictability and stability around how governments are going to deal with major environmental issues.
- Stability – More balanced macroeconomic conditions, reduced resource price volatility and supporting fiscal consolidation through, for instance, reviewing the composition and efficiency of public spending and increasing revenues through the pricing of pollution.

There is no “one-size-fits-all” prescription for implementing strategies for green growth. Greening the growth path of an economy depends on policy and institutional settings, level of development, resource endowments and particular environmental pressure points. Advanced, emerging, and developing countries will face different challenges and opportunities, as will countries with differing economic and political circumstances (Kanińska, 2017).

The concept of the green economy has recently emerged in mainstream public debate. The reason for such a high interest in the green economy was the initiatives undertaken by global and regional organisations seeking a way out of the multi-dimensional economic, environmental and social crisis. A green economy can be one tool that manages social equity, human well-being, with an improved economy while reducing ecological and environmental risks. There is no single, internationally accepted definition of the green economy. It is in a constant process of creation and definition, therefore there are many ways of looking at it. Below we present the processing according to Ryszawska (2013), who states that it is most often seen as:

- a direction for transformation of the economy and the whole economy-society-environment (ethical, responsible, based on respect for the planet and the human being) (Jackson, 2009; in: Ryszawska, 2013);
- a process of civilizational change, necessary due to overcoming planet (Zovanyi, 2013; Rockström, 2009; in: Ryszawska, 2013);
- a key element and goal of crisis recovery strategies and programmes, an engine driving the economy, creating jobs (Frérot, 2011; OECD, 2011a; UNEP, 2011; in: Ryszawska, 2013);

- a model desirable in the process of balancing development, combining economic, environmental and social aspects (Kosoy et al., 2012; in: Ryszawska, 2013);
- an alternative to the brown economy (UNEP, 2011; in: Ryszawska, 2013);
- process and way to reach the goal (greening of the economy, transition towards a green economy) (Bigg, 2011; EEA, 2010; The Danish 92 Group, 2012; in: Ryszawska, 2013);
- the specific goal of current environmental policy and ecological modernisation (The Environment Report..., 2012; Jänicke, 2011; Rao, 2010; in: Ryszawska, 2013);
- a real existing, growing economic sector, expressing structural change economy (Ocampo, 2011; in: Ryszawska, 2013);
- the result of green growth (OECD, 2011a; in: Ryszawska, 2013).

Fedriigo-Fazio (2012) in: Refaat, Abdelaal, Sallam (2019) claimed that nowadays, according to the EU there is a need for global strategies to achieve green economy, which is an economy that produces real development, increases jobs and eliminates poverty to achieve “a long-term survival of our planet” through real investing in and conserving the natural capital offers upon. This transition can also present the needed international sustainable development governance reforms. Therefore, the green economy is the tool to sustain sustainability’. The green economy aims to improve the efficiency of natural resource use to decrease ecological footprint and environmental risk and to improve human welfare.

The concept of green economy means moving towards an economic model based on sustainable and balanced production, exchange, consumption, and sharing of economic and social benefits, with particular care for nature and the environment. Green growth means increasing the potential of green activities and sectors as drivers of economic growth. In relation to climate, similar importance is attached to building climate resilience by reducing fossil fuel consumption and greenhouse gas emissions identified with the so-called low-carbon development. The concept of greening the economy can be defined as a process of transition from management according to the traditional industrial-market paradigm of development to a paradigm of inclusive development, based on sustainability and restoration of ecological balance (Adamowicz, 2022).

Ways to promote green economy and green growth have been analysed using political, social and economic aspects as follows (Sertyesilisik, Sertyesilisik, 2017):

- Policies play a key role in improving local and global sustainability. Policymakers can promote green economy and green growth mainly through their commitment, e.g. green GDP, EID (eco-industrial development) policies, green technology policies to promote innovation, international cooperation to combat climate change, policy instruments (i.e. carbon taxes, carbon-induced border tax adjustments, virtual water).
- Sustainability change agents can support green economy and green growth. Public awareness can influence the political and economic aspects as well as their success. Sustainability leaders are change agents who play a key role for a successful transformation towards sustainability as well as for a green economy and green growth.

- Green economy and green growth can be fostered in particular through green technology innovation, entrepreneurship and green supply chains. Green growth and a green economy can be achieved through innovation that can lead to the greening of production processes and products. Innovation in green technologies can be reinforced by policy instruments.

While addressing the twin challenge of boosting resource efficiency and maintaining ecosystem resilience, there is a clear need to integrate a third focus: human well-being. This aspect is important because the benefits we derive from the environment and the harms that we suffer due its degradation are not always reflected in market prices and therefore require separate consideration. Equally important, there is a need to ensure an equitable distribution of the benefits and costs of economic restructuring (EEA, 2013; in: Kanianska, 2017). The concept of a green economy recognises that ecosystems, the economy and human wellbeing (and the respective types of natural, produced, social and human capital) are intrinsically linked (Kanianska, 2017). Development of the green economy influences development of the society. As one of the components of sustainable development, green economy influences provision of social justice and responsibility, a decrease in social inequality and layering of the society, a fair access to the limited natural resources (Stukalo, Simakhova, 2019). The green economy is understood as a set of principles, goals and actions, which include (Ryszawska, 2013):

- intra and inter-generational equity and fairness,
- consistency with the principles of sustainable development,
- prevention of environmental degradation and social decline,
- recognition of natural and social capital among other forms of capital,
- sustainable and efficient use of resources, sustainable production and consumption,
- compatibility with existing macroeconomic objectives, i.e. the creation of new jobs, combating poverty, increasing competitiveness and developing key sectors.

The EU and Member States are convinced that the green economy offers a win-win option for all countries, regardless of their economic and level of development (Ryszawska, 2013).

Conclusions

What precisely constitutes a green economy and whether and for whom it is desirable can be unclear and requires close scrutiny, as different framings promote ‘a shared way of apprehending the world’ that can discursively influence global environmental politics. According Zylicz (2020) the media are full of ideas on how to better organize the world that emerges after the crisis. Environmental economists advocate for the "greening" of economies in order to allow man to manage resources more reasonably. Indeed, such "greening" is desirable. Yet it should not be based on the elimination of the environmentally unfriendly, but rather on establishing institutions that allow such economic agents to recognize incentives to become friendly for the environment (Zylicz, 2020). The diversity of political agendas becomes clear in efforts to classify different green economy understanding. While some researchers expect economic growth to be the outcome of a green economy, others view green economic growth as the vehicle

towards development and poverty alleviation. Growth-centred perspectives often place great importance on technological innovation to decouple environmental impacts from growth. However, they may overlook the fact that rebound effects may increase overall environmental impacts, as improved environmental performance may increase consumption (Stroebel, 2015). The notion of green growth has emerged as a dominant policy response to climate change and ecological breakdown. Green growth theory asserts that continued economic expansion is compatible with our planet's ecology, as technological change and substitution will allow us to absolutely decouple GDP growth from resource use and carbon emissions. This claim is now assumed in national and international policy, including in the Sustainable Development Goals. But empirical evidence on resource use and carbon emissions does not support green growth theory (Hickel, Kallis, 2019). Green growth is based on the idea that economic growth can go hand in hand with innovation, resource-efficiency and less environmental damage. However, while the EU repeatedly promotes sustainable development, the frustration of some member states in the context of EU integration policies points out that the development of a green transformation project may be worse in some EU countries (Bleuming, Yun 2016; EaP Green, 2016; Stefemann, Ossewaarde, 2018). For these comparative purposes, as well as an assessment of environmental changes on different levels, it is important to quantify sustainable development as well as the green growth of European countries (Adamišin, Vavrek, 2014). The past two decades have seen an increase in the number of methods and indicators to measure sustainable development and green growth (Valentiny, Novotný, Huttmanová 2019; Huttmanová, Valentiny, Novotný, 2019). Several composite indicators have been proposed in academic literature and many statistical institutes have adopted sets of sustainable development indicators to monitor progress towards a sustainable society. These indicators have been developed by a number of organizations such as the OECD, Eurostat, the World Bank, and the UN (UN 2016). The system of indicators of sustainable development and green growth is important, primarily as a mechanism to achieve their goals and also as the basis for forecasting the activities of enterprises and the country as a whole (Salimov, 2018). Both of these concepts – green growth, and green economy, are separate, but share a lot of common overlaps and, it can be concluded, that also common goal. The differences that exist between them can be seen as a challenge and variable ways to achieve sustainability. In fact, the process of greening the economy and ensuring its growth can be achieved in many ways, and individual countries can choose their own effective ways and methods (Huttmanová, Adamišin, Chovancová, 2013; Huttmanová, Valentiny, Novotný, 2019).

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