



Vol. 1(1): 97-111 (2024)



Journal of Regenerative Economics

DOI 10.5937/jre2401097L

REGENERATIVE ECONOMY THROUGH THE PRISM OF MONTENEGRO - CHALLENGES AND LIMITATIONS

Ana Lalević Filipović

University of Montenegro, Faculty of Economics, Podgorica, Montenegro

✉ analf@ucg.ac.me

ORCID ID: 0000-0002-8374-8238

Milan Raičević

University of Montenegro, Faculty of Economics, Podgorica, Montenegro

✉ milan.raicevic@ucg.ac.me

ORCID ID: 0000-0002-8020-506X

Milena Lipovina-Božović

University of Montenegro, Faculty of Economics, Podgorica, Montenegro

✉ milena@ucg.ac.me

ORCID ID: 0000-0002-1191-6562

Abstract: Environmental challenges, which have taken on global proportions in the past decades, have become a powerful catalyst for changes in the approach to the sustainability of economic systems. Evident and often irreversible damages caused to the planet by the existing methods of action require the urgent adoption of new models that enable the regeneration of ecosystems and the restoration of natural resources to the closest possible original state. In this context, the regenerative economy is emerging as a strategic response to increasingly pronounced environmental problems. Countries with more developed environmental awareness have recognized the importance of this concept, introducing it through concrete policies and practices that balance economic development and nature conservation. Although Montenegro was formally declared an ecological state in 1991, the principles of the regenerative economy have not yet been fully recognized or implemented. Nevertheless, the geographical position, exceptional natural beauty and significant tourist and agricultural potential provide Montenegro with a unique opportunity to become a leader in the Western Balkans in the development of regenerative practices. However, transition processes, political instability and economic uncertainties continue to slow progress towards a more environmentally conscious society. Regenerative approaches, such as sustainable tourism, regenerative agriculture, efficient waste management and the development of renewable energy sources, are key mechanisms by which Montenegro can achieve

Original scientific paper

Received: 15.12.2024

Accepted: 25.12.2024

the goals of a regenerative economy. Despite challenges, the goal of this paper is to identify limitations through the analysis of the current situation and offer concrete recommendations for the improvement and implementation of regenerative principles, in order to direct Montenegro towards a more sustainable and prosperous future.

Keywords: environmental challenges, sustainable development, regenerative economy, transition, Montenegro.

1. Introduction

The concept of regenerative economy, although present for quite some time, has not been widely utilized in public discourse, as it is often viewed through the lens of sustainable development and circular economy. The concept of regenerative economy, which is broader than that of the circular economy, is far more proactive. It is based on a holistic approach, aiming not only to achieve sustainability principles but also to promote healing, restoration of ecosystems, and the economy as a whole. Fundamentally, the term "regeneration" refers to the process of renewal, or returning to the original state of what has been damaged or depleted. In a modern context, the term "regenerative" is frequently used as a prefix in various fields, particularly in relation to nature and the state of the planet.

The urgency of implementing regenerative processes is becoming increasingly apparent, given the irrational exploitation of scarce resources, primarily natural ones. Traditional models of economic management have resulted in significant impoverishment and degradation of the planet, making profound regeneration essential. The principles of regenerative economy are directed towards establishing sustainable development, fostering a humane approach, and achieving long-term prosperity. Specifically, this concept is based on numerous key principles, including innovative approaches to the use of renewable energy sources, improving recycling systems, fostering collaboration among competitors instead of rivalry, and promoting a harmonious and sustainable way of life. The pursuit of regeneration encompasses not only ecological but also social aspects, contributing integrally to the revitalization of economic and natural systems with the goal of preserving the planet for future generations. These principles provide a foundation for building a regenerative model that transcends the framework of sustainability, focusing on creating a positive impact and restoring resources.

Unfortunately, many economies, especially those that have undergone or are currently experiencing intense political and economic turbulence, have failed to develop the capacity, motivation, or necessary awareness of the strategic importance of implementing the concept of a regenerative economy. Montenegro serves as an example of this, as despite its significant natural and geographical potential, the country has not sufficiently seized the opportunity to establish and promote this progressive model of economic development.

In 1991, Montenegro declaratively acquired the status of an ecological state, a pioneering step in recognizing the importance of sustainable development at an institutional level. However, despite this status, the lack of systemic implementation

and strategic measures has resulted in the concept of an ecological state remaining largely nominal, with little to show in terms of concrete results towards regenerative practices and sustainable economic prosperity.

On the other hand, Montenegro's aspiration to join the European community, with the implicit obligation to meet the requirements of Chapter 27 – Environment and Climate Change, the most demanding and last opened chapter, highlights its serious commitment to achieving the goals outlined in the UN Agenda 2030. This ambition is further confirmed by the adoption of the National Strategy for Sustainable Development until 2030², which formalizes Montenegro's dedication to integrating sustainable and regenerative principles into its development policies and practices.

In light of the above, the primary goal of this paper is to assess Montenegro's achievements as an ecological state through the lens of regenerative economy principles, identifying the limitations and potentials for its further development. Conceptually, the topic will be structured into three key thematic chapters, in addition to the introduction and conclusion. The first chapter will analyze, through a review of relevant literature, the conceptual definition, significance, and achievements of the regenerative economy, offering a comparative overview of experiences from other countries based on available research. The second chapter will focus on an analysis of Montenegro's achievements in the field of regenerative economy, while the third chapter will address key constraints and propose recommendations for improving existing practices.

It is worth emphasizing that no prior research on this topic has been conducted in Montenegro, which underscores the originality and innovative approach of this paper. Simultaneously, the aim of this paper is to draw academic attention to the importance of the topic of regenerative economy and to encourage broader discussion on its application. Examining this concept from the perspective of Montenegro's economy represents a pioneering step that will serve as a foundation for future, deeper, and more comprehensive research.

2. Literature review

Sustainable development (Ehrenfeld & Hoffmann, 2013; United Nations, 1987), circular economy (Bonciu, 2014; Kuah & Wang, 2020), and regenerative economy are key topics in contemporary scientific debate, significantly influencing not only academic circles but also companies, governments, investors, and civil society (Järvenpää et al., 2023). While the circular economy has become a central concept in political and economic discussions, its definition remains insufficiently precise, often subject to varying interpretations (Ghisellini et al., 2016; Kalmykova et al., 2018; Laurenti et al., 2018; Reike et al., 2018).

Research (Järvenpää et al., 2023) analyzing 55 papers (38 of which were examined in detail) highlights the lack of a clear distinction between circular and regenerative economies. Authors frequently reference the definition by the Ellen

² See more: <https://www.gov.me/dokumenta/67dc487e-097d-41d2-8fd5-7827a19a1f5a>

MacArthur Foundation (EMF, 2013), which describes the circular economy as "an industrial economy that is restorative or regenerative by intention and design." Furthermore, regeneration is recognized as the third key principle of the circular economy, referring to contributing to nature or creating space for nature.

However, progress in implementing these concepts remains unsatisfactory, as evidenced by data from the Circularity Gap Reporting Initiative (CGRI, 2022). According to their report, only 8.6% of the global population operates in line with circular principles. Additionally, between the Paris Agreement (2015) and the Glasgow meeting (2021), 70% more raw materials were extracted than the Earth can safely regenerate. These figures underscore the need to accelerate the implementation of circular and regenerative principles in practice to address growing ecological and economic challenges.

What is evident is the lack of consensus among authors regarding both the conceptual and terminological definition of regenerative economy. Many equate "restoration" with "regeneration," conflating these terms with sustainability, business, and economy. According to authors (Morseletto, 2020; Merriam-Webster, 2024), restoration involves "returning something to its original good condition," whereas regeneration refers to "enhancing that condition, making it better than it was." Based on these differences, Morseletto (2020) introduces two additional conceptual levels: the first is "restorative sustainability," aimed at restoring social and ecological systems to a healthy state. The second level is the "regenerative scenario," which enables social and ecological systems to continue developing and evolving. In this context, it is clear that a regenerative system does not adhere to the "delaying problems for later" approach, which is often a characteristic of contemporary political economy (Jain, Y., 2021).

There is broad consensus among researchers that regenerative economy represents a deeper and more comprehensive concept compared to sustainability, significantly expanding the principles of circular economy. Its exceptional value lies in its holistic approach, which not only encompasses biological and technical cycles but also places particular emphasis on improving human well-being (Hahn & Tampe, 2021; Robinson & Cole, 2015). This approach integrates nature, society, and economy into a unified, sustainable system, enabling the advancement of socio-ecological systems through evolution and integration rather than merely mitigating the negative impacts of human activities.

The regenerative economy, as reflected in a review of relevant literature, remains in its nascent stage of development. However, its conceptual framework and fundamental ideas provide clear guidance for shaping a more sustainable and equitable future. Core components of the regenerative economy include restoration, reformation, achieving a net positive impact, regeneration through restoration and conservation, systems thinking, and a holistic approach. These elements, combined with transformative changes at social, organizational, and individual levels, represent essential aspects of the regenerative approach (Untera et al., 2024).

Adopting new circular practices that enhance the interconnection of existing ecosystems with renewable energy sources (Kiviranta et al., 2020), promote tourism

sustainability (Schumann, 2020), and support regenerative agriculture. A significant aspect of the regenerative economy is addressing global solid waste management issues through recycling and resource recovery. This approach increases resource efficiency and reduces environmental footprints (Kowlessar, 2020). Regenerative economies are defined as those maintaining stable inputs and balanced outputs without depleting resources or disrupting broader social and ecological processes (Brown et al., 2018).

Regenerative agriculture is identified as a critical response to ecosystem degradation caused by global food systems, which emit approximately 25% of anthropogenic greenhouse gases (Poore & Nemecek, 2018). This agricultural model has the potential to restore soil health, enhance resilience, and mitigate ecological damage (Elevitch et al., 2018). It aligns with food security goals within the planet's capacity (Malik & Verme, 2014).

The concept of regenerative tourism is evolving from sustainable tourism and emphasizes leaving destinations in better conditions than found. This paradigm shift promotes long-term renewal of social and natural systems while fostering local community engagement (Duxbury et al., 2021; CBI, 2022). Regenerative tourism supports new economic models focusing on social and ecological benefits alongside financial growth.

Renewable energy (RE) is a cornerstone of the regenerative economy. With global RES use rising significantly from 4.098 TWh in 2010 to 7.627 TWh in 2020 (IEA, 2021), its potential to drive sustainability is evident. Case studies (Qazi et al., 2019) show that public awareness and supportive policies are critical for adoption. For example, public inclusion in decision-making has positively influenced RE development in Japan, while subsidies for fossil fuels have hindered competitiveness in Malaysia. Challenges in the Western Balkans, such as coal dependency and external geopolitical influences, further underline the need for targeted reforms (BIEPAG, 2023).

Despite definitional ambiguities, the regenerative economy is widely recognized as a transformative framework applicable across various industries, including agriculture, energy, tourism, construction, and manufacturing. Its implementation leverages innovative technologies to regenerate resources, minimize waste, and improve ecosystems. Developed countries' initiatives demonstrate the practical applicability of regenerative approaches, providing a roadmap for less developed nations to build resilient and sustainable systems.

The regenerative economy holds promise as a dynamic response to global challenges, offering solutions that combine ecological, social, and economic dimensions for a future of enhanced resilience and sustainability. By operationalizing these principles, societies can move beyond mitigation and toward holistic improvement of the socio-ecological landscape.

3. Montenegro – A review of macroeconomic indicators and environmental aspects

Montenegro, a country of extraordinary natural diversity, encompasses spectacular mountain ranges and a stunning Adriatic coastline. With its favorable geographic position and pleasant climate, it is considered one of the most beautiful areas in Europe. Covering an area of 13.812 km² and home to over 620.000 residents, Montenegro is renowned as a multiethnic and multiconfessional state.

The Montenegrin economy is small and open, heavily reliant on tourism, and highly vulnerable to external shocks. Nevertheless, it has demonstrated a certain resilience in addressing global challenges such as inflationary pressures, supply chain disruptions, and the energy crisis, achieving significant growth in recent years.

The focus of Montenegro's economic policy over the past three years has been on improving citizens' living standards and creating a predictable and supportive investment and business environment. These efforts aim to generate new jobs and accelerate the convergence of income and GDP per capita with the EU average. On its path to joining the European family, Montenegro achieved significant milestones in 2024, including obtaining IBAR status and recently closing three negotiation chapters.

Regarding key macroeconomic indicators, relevant international organizations project that Montenegro's economic growth from 2024 will continue in the coming year, ranging between 3,5% and 4,2%.

After experiencing exceptionally high inflation rates in 2022 and 2023, reaching a record 17,5%, inflation in 2024 showed more positive trends. During the first ten months of 2024, the average inflation rate was 3,6%. Similar trends are expected to continue, with inflation projected to average 2,9% for the period 2025–2027, driven by reduced price pressures at the European level.

The labor market displayed positive trends in 2024, with the unemployment rate reaching a historic low of 11,4% (Statistical Office of Montenegro – MONSTAT, <https://www.monstat.org/cg/page.php?id=22&pageid=22>) by the end of the second quarter, according to MONSTAT's labor force survey.

On the other hand, industrial production declined by 6,2% in the first eight months of 2024, primarily due to a 21,8% reduction in electricity production. However, the mining and manufacturing sectors showed positive growth of 6,3% and 5,9%, respectively, with an exceptional increase of over 200% in metal product manufacturing.

Despite the challenges, optimism for economic prosperity and stabilization stems from the increase in employment and wages, as well as the key role of foreign investments, which, along with strengthening confidence in the banking sector, additionally strengthen the country's economic foundations.

When it comes to longer-term forecasts, an optimistic approach is also noticeable. Namely, according to the *Government's draft document Economic Reforms Program 2025-2027*, the belief is expressed that it will strive to achieve

sustainable and inclusive economic growth that will improve the quality of life of all citizens. According to the *Forecasts of the European Commission for Montenegro* (European Economic Forecast, Autumn 2024, https://economy-finance.ec.europa.eu/document/download/7173e7c9-3841-4660-8d6a-a80712932f81_en?filename=ip296_en.pdf), economic growth is expected to accelerate in 2025, stimulated by newly adopted measures that should stimulate private consumption and investments. However, this effect is predicted to weaken during 2026. Export growth in the period 2025–2026 it will probably be supported by the continued development of the tourism sector.

According to the *Report on the Climate and Development of the Country - Montenegro*, published by the World Bank, it is pointed out that Montenegro has the opportunity to strengthen its resilience to climate change and encourage sustainable economic growth through carefully planned investments and policies.

The report estimates that \$5,7 billion is needed over the next decade to reduce harm and improve resilience, with nature-based solutions and green infrastructure already showing positive effects on public health and the quality of urban space. Montenegro also aims to achieve net zero emissions by 2050, and the private sector is expected to provide more than 70% of the required capital through green bonds and public-private partnerships.

Along with the expansion of renewable energy sources and the decarbonisation of the transport and heating sectors, these measures can open up opportunities for sustainable growth, bringing economic, environmental and social benefits to the country.

Montenegro formally confirmed its commitment to European integration by submitting an application for membership in the European Union at the end of 2008, while negotiations began in mid-2012. One of the most challenging chapters in this process is Chapter 27 - Environment and Climate Change, which, being the last to be opened, is also the most demanding. According to the *Report of the European Commission* from 2024, Montenegro has a certain level of preparedness in this area. It also points to certain achieved progress, but also to the necessary reforms that should be implemented in the coming period, which confirms that Montenegro is facing significant challenges.

Key areas within Chapter 27 include improving waste management and recycling systems, preserving natural resources such as forests and water, and raising energy efficiency to a higher level. These challenges require systematic planning and implementation through strategic documents, the goal of which is the long-term protection of natural resources and sustainable development. However, one of the biggest problems remains the change in the awareness of citizens and society, which requires intensive information campaigns, but also the application of restrictive punitive measures in order to achieve the desired results.

In addition, by adopting the *National Strategy for Sustainable Development until 2030*, Montenegro undertook to fulfill the goals defined by the UN Agenda for Sustainable Development. This strategy further strengthens efforts to achieve sustainable development through integrated approaches to nature conservation,

emission reduction and improvement of quality of life. In support of the above, the fact that the Government's document entitled *Proposal of the National Strategy for Circular Transition until 2030* points out that the National Strategy is the "umbrella development document of Montenegro" which "set the concept of circular economy as a response to challenges in the field of waste management, not only in terms of waste prevention and reduction, but also in the area of innovation from the beginning to the end of the value chain". In addition to the above-mentioned document, the Government of Montenegro adopted a large number of national strategic frameworks, which serve to achieve the above. However, the challenges are complex, the wishes are many, and the time to solve them is getting shorter.

One of the key challenges in the field of sustainable development in Montenegro is unplanned construction, uneven regional development and excessive population concentration in the central part of the country. These problems contribute to the significant disruption of urban biodiversity and the imbalance between urban and rural areas, which affects ecological, social and economic sustainability. Therefore, it is essential to introduce comprehensive measures that will improve spatial planning and support sustainable urban development as an integral part of the green transition of Montenegro.

Tourism, as a strategic branch of development, faces serious infrastructural deficiencies that limit the use of the full potential of the natural and cultural resources of Montenegro. In addition, insufficiently developed capacities in agriculture and animal husbandry further weaken the opportunities for rural development and improvement of economic sustainability, thereby missing the opportunity to strengthen the local economy and promote Montenegro as a destination with authentic natural and agro-tourism offers.

In the context of European integration, Montenegro transposed the provisions of EU Directive 2014/95, which refers to non-financial reporting and encourages sustainable business between companies, through amendments to the Accounting Act in 2016. However, despite the legal framework, the change in traditional corporate awareness towards sustainability remains minimal. New challenges appear with the implementation of EU Directive 2022/6424, which introduces a radical reform of the corporate reporting system, including sustainability reporting standards, mandatory audit of non-financial reports and extension of reporting obligations to a larger number of entities.

Solving these problems requires a multidisciplinary approach, coordination of different sectors and significant education in order to promote the principles of sustainable development in all segments of society. This implies not only technical and legislative changes, but also systematic work on strengthening awareness of the importance of sustainability at the local, national and corporate levels.

From all of the above, the conclusion follows that a linear approach to the economy is still present in Montenegro and that in addition to the existence of formal strategic documents, very little has been done in the field of achieving the goals of sustainable development and realizing the idea of a circular economy. What are the potentials in the field of establishing and developing the concept of regenerative economy will be shown in the next chapter.

4. The concept of regenerative economy in Montenegro - potentials and limitations

As already emphasized, Montenegro has significant potential to position itself as a recognizable leader in the Western Balkans in the development of a sustainable economy, combining the preservation of natural resources with modern approaches to economic growth. However, the available data and achievements so far indicate that Montenegro uses its potential either minimally or not at all. Although the normative framework seems relatively organized, the available data suggest modest progress, which clearly indicates a significant lag in achieving the goals of sustainable development. When it comes to the regenerative economy, that concept, unfortunately, is still not considered in the Montenegrin context.

In support of the above, the fact that according to the document of the Government of Montenegro (Information on the achieved share of energy from renewable sources in the total final energy consumption in Montenegro in 2021 with the Report) it is pointed out that Montenegro has a great potential to use RES, but that the share RES in the total final consumption of energy in Montenegro in 2021 amounted to 39,29%, which is shown in the following table:

Table 1. Total share and sectoral shares in total final consumption (2021-2022)

	2021	2022
Sectoral share		
1.1. RES-H&C (%) - heating and cooling	57,61	60,56
1.2. RES-E (%) – electric energy	60,33	63,47
1.3. RES-T (%) - transport	0,80	0,91
Total share RES (%)	39,29	40,09

Sources: <https://www.gov.me/dokumenta/b35e3b31-a553-43d6-b705-9525f1876560?utm> ; <https://wapi.gov.me/download-preview/287bd733-166c-4870-b49d-5215d160d608?version=1.0>

In the aforementioned document, it is emphasized that the adoption of the *National Energy and Climate Plan (NECP)* is expected in the coming period, which will define new sectoral goals for the share of renewable energy sources in the power sector, the heating and cooling sector, as well as the transport sector. This plan will include measures, activities, projects and dynamics to achieve the national goal of a 50% share of energy from renewable sources in the total gross final energy consumption by 2030, with precisely defined sectoral goals. The Government's report for 2022 confirms that Montenegro has increased the share of renewable energy sources (RES) in the total final consumption to 40,09%, which indicates active efforts towards achieving this goal.

The *Report on the State of the Energy Sector of Montenegro* for 2022 highlights the significant energy potential of the country, especially in the field of hydropower, wind power plants and solar resources. Renewable energy sources accounted for

40,7% of gross final consumption, with a clear ambition to reach 50% by 2030. Although coal production still plays a key role in the energy mix, Montenegro is focusing on projects like SE Briska Gora and VE Gvozd in order to increase the share of renewable sources and improve energy efficiency. Along with planned investments and reduction of losses in energy transmission and distribution, Montenegro has set a goal of reducing greenhouse gas emissions by 55% by 2030, which represents a significant step towards sustainable energy development.

Based on the government document *Energy Balance for 2025*, which also contains an accompanying annual analysis of the share of energy from renewable energy sources in total energy production, the total production of electricity in 2023 was 14.554,22 TJ, production from renewable sources was 9.071,50 TJ, which is 62,33% of the total production. In 2024, the expected production is 12.076,20 TJ, of which 7.431,32 TJ or 61,54% of the total production comes from renewable sources. For the year 2025, the total production is planned to be 10.439,90 TJ, of which 8.323,10 TJ or 79,72% of the total production will come from renewable sources.

The total produced coal energy (excluding coal that is transformed into electricity at the Pljevlja Thermal Power Plant) in 2023 was 172,95 TJ, in 2024 it was estimated at 138,15 TJ, while 184,20 TJ is planned for 2025. From the above data, it can be concluded that the ratio of energy produced from renewable sources in the total energy production in 2023 was 75,91%, in 2024 it was estimated at 76,97% and for 2025 it is planned at 88,01 %.

The planned production for 2025 is 2.312 GWh or 80% from renewable energy sources (RES), consisting of hydroelectric power plants, wind power plants and solar power plants, and from thermal power plants 588 GWh or 20% of the total electricity production.

Montenegro has significant potential for the transition to a regenerative economy, especially through the development of regenerative production. However, previous efforts in this field show that this potential is insufficiently used. MONSTAT data, as well as research results, indicate that the share of organic production in the total used agricultural land in 2022 was only 1,6%, which confirms the need for more intensive investments and support for this sector.

Furthermore, the circular economy and waste management are also highlighted as great potentials for promoting the idea of a regenerative economy in Montenegro. However, the achievements so far in Montenegro in this field indicate very poor progress, regardless of the very ambitious goal of recycling 50% of waste by 2030. According to MONSTAT data, only 0,3%, or 1,021 tons, of the total collected 335,000 tons of municipal waste was recycled in 2022 in Montenegro, which is the lowest result in the last four years. These data indicate a significant lag behind the goals stipulated by the Law on Waste Management, which planned the recycling of 22% of the total municipal waste by 2020, as well as the standards of the European Union, which foresees the recycling and composting of at least 55% of municipal waste by 2025. In addition, in 2022, a total of 1,41 million tons of waste was created in Montenegro, of which 20.9% is hazardous waste, which further emphasizes the need to improve the waste management system in the country. The observation of the mentioned problems by municipalities leads to the conclusion that they face

significant challenges, which include a low rate of recycling and inadequate infrastructure. Most of the waste in municipalities ends up in unorganized landfills, while the capacities for separate collection and recycling are minimal.

At the conference "Modern waste management system, the foundation of a sustainable future" (<https://komora.me/saopstenja/moderan-sistem-uprajvanja-otpadom-temelj-odrzive-buducnosti>) it was pointed out that Montenegro, as an ecological country, must establish an effective system of waste management to preserve the environment and support a tourism-based economy. Also, the importance of transforming everyday practices and establishing an adequate regulatory and institutional framework for sustainable development was emphasized. From all of the above, it is clear that Montenegro has the obligation to fulfill the requirements defined in the negotiation Chapter 27. Initiatives for the regenerative economy include the adoption of policies for the development of the circular economy, improvement of energy efficiency through the use of waste for energy production, and the promotion of sustainable development through EU funds. However, progress in the implementation of these initiatives remains slow, and efficient waste management and the transition to a regenerative economy require greater investment, education and institutional support.

Furthermore, what is generally known is that in all strategic documents of Montenegro, tourism is recognized as a key economic branch, as well as a branch through which it is possible to achieve sustainability goals, achieved balanced regional development, especially through achieving the development and promotion of eco-tourism in the northern region. The above is elaborated in detail within the Tourism Development Strategy of Montenegro 2022-2025, but it also points out that although the north has great potential for the development of ecotourism, cultural and adventure tourism, challenges such as lack of infrastructure and poor accessibility require significant investments and alignment with EU regulations, especially from Chapter 27. The implementation of the strategy depends on the effective implementation of green investments, strengthening of destination management and public-private partnership, with the aim of positioning Montenegro as a recognized sustainable destinations.

The development of a regenerative economy in Montenegro requires a comprehensive integration of innovative policies that promote sustainability in key sectors, including energy, waste management, tourism and agriculture. Key challenges include improving infrastructure, strengthening institutional capacities and aligning with international standards, especially EU regulations. Without strategic planning and adequate implementation, the achievements so far could remain limited, which would slow down the transition to regenerative development.

It is necessary to establish coordination between national and local policies, with a focus on the balanced development of the northern and southern parts of the country. Education of local communities and their active involvement in development initiatives are key to creating sustainable practices. Special attention should be paid to the use of renewable energy sources and the development of ecotourism in northern municipalities, where there are significant natural resources that can be valorized in a sustainable manner.

The inclusion of international funds and public-private partnerships will enable the realization of strategic projects that contribute to economic growth and the preservation of natural resources. The regenerative economy represents an opportunity to reduce environmental risks and increase the economy's resilience to global challenges. Montenegro has the potential to position itself as a regional leader in the application of regenerative models, if priorities and implementation dynamics are clearly defined.

In conclusion, the synergy of public policies, private investments and local initiatives is the key to success in achieving sustainable development that simultaneously improves economic performance and environmental protection. The transition to a regenerative economy is not only a challenge, but also an opportunity for the long-term prosperity of Montenegro.

5. Conclusion

The concept of the regenerative economy, still imprecisely defined and separated from the circular economy, however, is seen as a much broader, more inclusive and proactive approach than the circular economy. Regeneration is a process and as a result of that process sustainable living systems are created. Therefore, the regenerative economy strives to transform various industries (agriculture, energy, construction, tourism, etc.) by applying innovative technologies that will create sustainable systems.

Although Montenegro has had the status of an ecological state for more than 30 years, it has not yet recognized the importance of the principles of regenerative economy, that is, it has not reached the required level of development in this area. Therefore, the goal of this work was to point out the key potentials, as well as the challenges faced by Montenegro on the way to the development of a regenerative economy. The existence of numerous formal strategic documents in Montenegro, however, did not contribute much to achieving the goals of sustainable development and realizing the ideas of circular and regenerative economy. Actualization of this issue at all levels of action must be a priority for Montenegro in the coming period, especially due to the fact that Montenegro is a candidate for EU accession, where Chapter 27 - Environment and climate change is one of the most demanding chapters in that process.

The significant potentials of Montenegro in the transition to a regenerative economy are reflected through: the development of regenerative production, whose potentials are currently underutilized; then sustainable tourism, taking into account the fact that tourism stands out as a key economic branch; establishment of an efficient waste management system.

Regardless of the mentioned potentials, Montenegro faces numerous challenges and limitations on the way to a regenerative economy. This entire process requires: the construction of adequate infrastructure in all industries that are recognized as important for the development of the regenerative economy, more efficient implementation of green investments, coordination of national and local policies, as well as harmonization with international standards. Achieving sustainable

development that simultaneously improves economic performance and preserving the environment should be seen as an opportunity for the long-term progress of Montenegro.

References

- Bellato, L., Frantzeskaki, N., & Nygaard, C. (2022). Regenerative tourism: a conceptual framework leveraging theory and practice. *Tourism Geographies*, 1-21.
- Bonciu, F. (2014). The European economy: From a linear to a circular economy. *Romanian J. Eur. Aff.*, 14, 78.
- Brown, M. M., Haselsteiner, E., Apró, D., Kopeva, D., Luca, E., Pulkkinen, K. L., & Rizvanolli, B. (2018). Restorative to Regenerative: An exploration in progressing a paradigm shift in built environment thinking, from sustainability to restorative sustainability and on to regenerative sustainability.
- Circular Economy. (2022). The circularity gap report 2022. Circular Economy, Amsterdam
- Duxbury, N., Bakas, F. E., Vinagre de Castro, T., & Silva, S. (2020). Creative tourism development models towards sustainable and regenerative tourism. *Sustainability*, 13(1), 2. <https://doi.org/10.3390/su13010002>
- Ehrenfeld, J. R., & Hoffmann, A. J. (2013). *Flourishing: A frank conversation about sustainability*. London: Routledge
- Elevitch, C. R., Mazaroli, D. N., & Ragone, D. (2018). Agroforestry standards for regenerative agriculture. *Sustainability*, 10(9), 3337. <https://doi.org/10.3390/su10093337>
- Ellen MacArthur Foundation. (2022). What is a circular economy. <https://ellenmacarthurfoundation.org/topics/circular-economy-introduction/overview>
- Fusté-Forné, F., & Hussain, A. (2022). Regenerative tourism futures: a case study of Aotearoa New Zealand. *Journal of tourism futures*, 8(3), 346-351.
- Ghisellini, P., Cialani, C., & Ulgiati, S. (2016). A review on circular economy: the expected transition to a balanced interplay of environmental and economic systems. *Journal of Cleaner production*, 114, 11-32.
- Giller, K. E., Hijbeek, R., Andersson, J. A., & Sumberg, J. (2021). Regenerative agriculture: an agronomic perspective. *Outlook on agriculture*, 50(1), 13-25.
- Hahn, T., & Tampe, M. (2021). Strategies for regenerative business. *Strategic Organization*, 19(3), 456-477.
- Jain, Y. (2021). Regenerative Economies: A New Approach Towards Sustainability. In *No Poverty* (pp. 761-771). Cham: Springer International Publishing. https://link.springer.com/referenceworkentry/10.1007/978-3-319-69625-6_80-1
- Järvenpää, A. M., Jussila, J., Henttonen, K., Helander, N., & Kunttu, I. (2023). Contrasting restorative economy and regenerative economy in circular economy context. In ISPIIM Innovation Conference. ISBN 978-952-65069-3-7.
- Kalmykova, Y., Sadagopan, M., & Rosado, L. (2018). Circular economy—From review of theories and practices to development of implementation tools. *Resources, conservation and recycling*, 135, 190-201.
- Kiviranta, K., Thomasson, T., Hirvonen, J., & Tähtinen, M. (2020). Connecting circular economy and energy industry: A techno-economic study for the Åland Islands. *Applied Energy*, 279, 115883.

- Kowlessar, P. (2020). An overview of circular economy in Mauritius. *Circular economy: Global perspective*, 269-277. https://doi.org/10.1007/978-981-15-1052-6_14
- Kuah, A. T., & Wang, P. (2020). Circular economy and consumer acceptance: An exploratory study in East and Southeast Asia. *Journal of Cleaner Production*, 247(3), 119097.
- Malik, P., & Verma, M. (2014). Organic agricultural crop nutrient. *Research Journal of Chemical Sciences*. ISSN, 2231, 606X.
- Mizik, T. (2021). Climate-smart agriculture on small-scale farms: A systematic literature review. *Agronomy*, 11(6), 1096.
- Morseletto, P. (2020). Restorative and regenerative: Exploring the concepts in the circular economy. *Journal of Industrial Ecology*, 24(4), 763-773.
- Poore, J., & Nemecek, T. (2018). Reducing food's environmental impacts through producers and consumers. *Science*, 360(6392), 987-992. <https://doi.org/10.1126/science.aag0216>
- Qazi, A., Hussain, F., Rahim, N. A., Hardaker, G., Alghazzawi, D., Shaban, K., & Haruna, K. (2019). Towards sustainable energy: a systematic review of renewable energy sources, technologies, and public opinions. *IEEE access*, 7, 63837-63851.
- Reike, D., Vermeulen, W. J., & Witjes, S. (2018). The circular economy: new or refurbished as CE 3.0?—exploring controversies in the conceptualization of the circular economy through a focus on history and resource value retention options. *Resources, conservation and recycling*, 135, 246-264.
- Robinson, J., & Cole, R. J. (2015). Theoretical underpinnings of regenerative sustainability. *Building Research & Information*, 43(2), 133-143.
- Schumann, F. R. (2020). Circular economy principles and small island tourism Guam's initiatives to transform from linear tourism to circular tourism. *Journal of Global Tourism Research*, 5(1), 13-20. <https://doi.org/10.37020/jgtr.5.1>.
- Unter, K., Vogel, L. L., Walls, J. L., Küng, C., & Tamayo, J. (2024). Towards Defining a Regenerative Economy. <https://sdsn.ch/wp-content/uploads/2024/06/Towards-Defining-a-Regenerative-Economy-HSG-IWOe-SDSN.pdf>
- <https://www.gov.me/dokumenta/b35e3b31-a553-43d6-b705-9525f1876560?utm>
- <https://zerowastemontenegro.me/upravljanje-otpadom-u-crnoj-gori/>
- <https://me.propisi.net/zakon-o-upravljanju-otpadom/>
- <https://komora.me/saopstenja/moderan-sistem-upravljanja-otpadom-temelj-odrzive-buducnosti>
- <https://monstat.org/cg/page.php?id=2036&pageid=2035>
- <https://regagen.co.me/wp-content/uploads/2023/09/IZVJESTAJ-O-STANJU-ENERGETSKOG-SEKTORA-CRNE-GORE-ZA-2022-god.pdf>
- <https://wapi.gov.me/download-preview/287bd733-166c-4870-b49d-5215d160d608?version=1.0>
- <https://seerural.org/wp-content/uploads/2023/03/Organic-production-Zoran-Jovovic.pdf>
- <https://mia.gov.me/me/agencija-za-investicije-crne-gore-ucestvuje-u-izradi-montenegro-energy-growth-and-acceleration-mega-studije-za-razvoj-obnovljivih-izvora-energije/>
- https://cbcg.me/slike_i_fajlovi/fajlovi/fajlovi_publikacije/makroekonomski/i_kv_2024/realni-sektor.pdf
- <https://rtcg.me/vijesti/ekonomija/626688/prognoza-ek-za-cmu-goru-naredne-godine-veci-bdp-i-inflacija.html>

<https://forbes.vijesti.me/aktuelno/bolje-prognoze-ek-ali-rast-javnog-duga-i-dalje-je-fiskalni-rizik/?utm>
<https://thedocs.worldbank.org/en/doc/7978d85f3492deac1256bec48a77708-0080012024/original/PR-MNE-CCDR-04122024-CG.pdf?utm>
<https://www.vijesti.me/vijesti/drustvo/680991/izvjestaj-ek-najgora-ocjena-za-zivotnu-sredinu-i-klimatske-promjene>
<https://www.gov.me/dokumenta/0c06358d-afd2-45eb-863d-02a25969a2d9?utm>
<https://www.monstat.org/cg/page.php?id=22&pageid=22>
https://economy-finance.ec.europa.eu/document/download/7173e7c9-3841-4660-8d6a-a80712932f81_en?filename=ip296_en.pdf

REGENERATIVNA EKONOMIJA KROZ PRIZMU CRNE GORE – IZAZOVI I OGRANIČENJA

Apstrakt: Ekološki izazovi, koji su tokom poslednjih decenija poprimili globalne razmere, postali su snažan katalizator promena u pristupu održivosti ekonomskih sistema. Očigledne i često nepovratne štete nanesene planeti postojećim metodama delovanja zahtevaju hitno usvajanje novih modela koji omogućavaju regeneraciju ekosistema i vraćanje prirodnih resursa u stanje što bliže izvornom. U tom kontekstu, regenerativna ekonomija se pojavljuje kao strateški odgovor na sve izraženije ekološke probleme. Zemlje sa razvijenijom ekološkom svesću prepoznale su značaj ovog koncepta, uvodeći ga kroz konkretne politike i prakse koje balansiraju ekonomski razvoj i očuvanje prirode. Iako je Crna Gora još 1991. godine formalno proglašena ekološkom državom, principi regenerativne ekonomije još uvek nisu u potpunosti prepoznati niti implementirani. Ipak, geografski položaj, izuzetne prirodne lepote i značajan turistički i poljoprivredni potencijal pružaju Crnoj Gori jedinstvenu priliku da postane lider u razvoju regenerativnih praksi na području Zapadnog Balkana. Međutim, tranzicioni procesi, politička nestabilnost i ekonomske neizvesnosti i dalje usporavaju napredak ka društvu koje je ekološki osvešćeno. Regenerativni pristupi, poput održivog turizma, regenerativne poljoprivrede, efikasnog upravljanja otpadom i razvoja obnovljivih izvora energije, predstavljaju ključne mehanizme pomoću kojih Crna Gora može ostvariti ciljeve regenerativne ekonomije. Uprkos izazovima, cilj ovog rada je da kroz analizu trenutnog stanja identifikuje ograničenja i ponudi konkretne preporuke za unapređenje i implementaciju regenerativnih principa, kako bi se Crna Gora usmerila ka održivijoj i prosperitetnijoj budućnosti.

Ključne reči: ekološki izazovi, održivi razvoj, regenerativna ekonomija, tranzicija, Crna Gora.

Acknowledgement

Funded by the European Union, under the GA101136834 - CROSS-REIS. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or European Research Executive Agency (REA). Neither the European Union nor the granting authority can be held responsible for them.