

ROMANIA'S COMMON OBJECTIVES FOR A SUSTAINABLE FUTURE WITHIN THE 2030 AGENDA. GREEN TRANSITION TO A CIRCULAR ECONOMY

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Abstract

The paper aims to present the actual framework, legislation and steps that should be taken by each country to mitigate climate change and its impacts in order to build a sustainable future. It also focuses on Romania and the way in which the objectives proposed by the European Union are being met. The basis for this paper is the information gathered over the years during the events organized by The Ecological Initiative and Sustainable Development Group, which is deeply involved and gives its contribution to the realization of the concept of sustainable development and environmental protection in Romania. "The Ecological Initiatives and Sustainable Development Group" Foundation has set up the first national and international forums on sustainable development, sustainability and environmental protection. We have set up a tool called responsible citizenship after hundreds of meetings in the Forum for Sustainable Development and Environmental Protection, bringing together leading figures in sustainable development and environmental protection from around the world. All these meetings led to raising awareness, rebirth of the civil spirit, information, creating working groups in order to contribute for fulfilling the Green Deal Agenda.

Key words: climate changes, sustainable development, policies, European Union

INTRODUCTION

The concept of sustainable development has been defined over the decades in various international scientific debates and has taken on precise political implications in the context of globalization.

In recent history, the first signal that the economic and social developments of the world's countries and of humanity can no longer be separated from the consequences of human activity on the natural environment was given in the 1972 Club of Rome report entitled *The Limits to Growth* (Meadows Report). It summarized data on the evolution of five parameters: population growth, the impact of industrialization, the effects of pollution, food production and trends in the depletion of natural resources

As part of this process of shaping sustainability, a number of international conventions have been adopted which establish precise obligations on the part of states and strict deadlines for implementation on climate change, biodiversity conservation, protection of forests and wetlands, limiting the use of

certain chemicals, access to information on the state of the environment and others, which outline an international legal space for the practical application of the precepts of sustainable development.

Literature review

According to Chiritescu et al., (2013) [4] the concept of eco-economic development is the premise that human civilization is a subsystem of the ecosphere, dependent on material and energy flows within its stability and capacity for self-adjustment and is completed by Berca, M. (2020) [1] saying that life forms of the different segments of life are almost identical, although they are found in systems and subsystems of distant life, distant from an evolutionary point of view.

The green economy improves the human and social welfare, while significantly reducing environmental risks and ecological deficit mentioned R. Blaj (2013) [2] in his paper.

The concept of circular economy is not limited to the European area but rather has a global outlook given its importance. As described by the United Nations Organisation the key idea behind was "the goods of today are the

resources of tomorrow at yesterday's resource prices" Chereji et al., (2024) [3].

The development of the economy has continuously increased the demand for raw materials, while reducing the available quantities of natural resources.

The sustainable development involves the monitoring of the implementation of the environmental measures as affirmed Turtoi et al., 2014) [33].

Bioeconomy is another important aspect of a sustainable development as discussed at the International Conference in Lithuania in 2024 [35].

In addition, the impact on climate and the environment is significant, as excessive energy consumption directly affects the increase in CO₂ emissions mentions Devcic, A., 2022 [7]. The European Commission (2019) [11] defined The European Green Deal as a response to these challenges. It is a new growth strategy that aims to transform the EU into a fair and prosperous society, with a modern, resource-efficient and competitive economy where there are no net emissions of greenhouse gases in 2050 and where economic growth is decoupled from resource use

The European Green Deal was first presented in December 2019 as the EU's pledge to become the first climate neutral continent by 2050 and comes with an action plan to promote a cleaner environment, more affordable clean energy, smarter transport, a circular economy and new jobs in greener industries (United Nations, 2022) [34].

Global consumption of materials such as biomass, fossil fuels, metals and minerals is expected to double in the next forty years, while annual waste generation is projected to increase by 70% by 2050. This Circular Economy Action Plan provides a future-oriented agenda for achieving a cleaner and more competitive Europe in co-creation with economic actors, consumers, citizens and civil society organisations. It aims at accelerating the transformational change required by the European Green Deal, while building on circular economy. European Commission (2020) [10, 5].

Various financial tools, including taxes or incentives, can serve the purpose of

internalizing external costs based on taxation of pollution or waste resulting from the manufacture and consumption of a given product as affirmed Platon et al. (2024) [22].

Recycling old equipment is a key strategy in mitigating climate change, as it reduces both direct emissions from improper waste disposal and indirect emissions from the resource extraction and manufacturing processes. Social Innovation Solutions, 2023 [28].

The European Union's taxation initiative to ensure the carbon price on imports is equivalent to the carbon price paid for domestic production (Deloitte Romania (2023) [6].

A policy of sustainable recovery is defined by its dual potential to create activities or opportunities for income, jobs and growth and, at the same time, to accelerate the process of achieving medium- and long-term environmental objectives, both at national and global level as mentioned Frone and Frone (2022) [15].

In view of a greener and circular economy, the general trend in European Union is to improve and enhance all activities related to waste management, starting with the quantities of waste generated and ending with the disposal of the waste (Frone et al. 2020) [14].

As a feature form of the green economy, circular economy proposes the re-use of resources used in products whose shelf life has come to an end or which have lost their usefulness, to construct new objects, the same quality or even better.

For the green and circular economy, eco-innovation is based on centralizing knowledge on material and energy flows as an efficient tool to foster a transition from a linear industrial system to a closed-loop system mimicking biological ecosystems (Frone and Frone, 2017; Sirbu C., 2023) [13, 27].

Between circular economy and food production systems is a close relationship tracing linkages and exploring synergies for assuring food security through agrif-food supply chains [16, 17].

As the literature reveals, the concept of circular economy is not a new one. Concerns regarding the transition to renewable energy and the fundamental change of the economic system

began to appear as early as the 1970's when the idea of a model based on the transformation of waste resulting from all activities from production to consumption (and even after this point) into inputs, began to take shape (Nicolau et al., 2024; Mihai and Ulman, 2023; Tarhini et al., 2022) [21, 18, 29].

The circular economy is a complex concept with economic, environmental, and social implications and a tool for the sustainable development in all the areas (Platon et al, 2024) [22, 8].

Romania's green economy transition needs to focus on sustainable energy. The country has signed up to the Paris Agreement and targets a 40 per cent reduction in greenhouse gas (GHG) emissions by 2030.

Romania was the first EU country to achieve the bloc's target of a 20 per cent renewables share ahead of the 2020 deadline, but investment in renewable energy has stalled in recent years due to a lack of commitment. Buildings account for the largest share of Romania's final energy consumption. The quality of its building stock falls well below the standards of EU regulation and a lot of retrofitting is required.

While the prevalence of coal has been decreasing slowly (some of it replaced by gas), it remains important. The coal industry is a significant employer, but Romania will need to decommission 100 per cent of its coal infrastructure by 2030 to meet its climate change targets. Promoting e-mobility in public transport policy is also essential. (European Bank for Reconstruction and Development, 2022) [9].

As mention by Sîrbu, C. (2016) [26] To ensure the sustainable development, it is necessary to focus on a limited number of core priorities relating to knowledge transfer and innovation, forestry and rural areas, to farm viability, to the competitiveness and promoting innovative technologies and the sustainable management, to the organization of the food chain, including the processing and marketing, to risk management, restoring, preserving and enhancing, to the promotion of resource efficiency and the shift towards a low carbon economy, and to promoting social inclusion, poverty reduction.

According to The Romanian Government, Ministry of Environment and Sustainable Development 2008 [23], for the last ten years, Romania set its goals based on the performance of the global economy and in line with EU policy. Today, both Romania and the EU need to rethink their medium and long-term priorities. Achieving the goals of the 2030 Agenda for Sustainable Development represents a guaranteed way to create a better future for the next generations.

A long-term and sustainable cooperation framework needs to be enabled which promotes decentralised but also coordinated work. A demand for professional exchange to develop ideas and to collaborate in concrete projects is clearly visible (Sîrbu, C., 2013) [25].

In this context, the purpose of the paper is to present the actual framework, legislation and steps that should be taken to mitigate climate change and its impacts in order to build a sustainable future. The focus is on Romania especially regarding the way in which the objectives proposed by the European Union are fulfilled.

MATERIALS AND METHODS

In order to provide the information in this paper, the meeting organized starting with 2005 was the main source. In the development of the paper we used the information in the official documents issued by the European Commission, European Union, European Bank for Reconstruction and Development.

Romania's green economy transition needs to focus on sustainable energy, so through our activity we have focused on developing sustainable development in Romania.

the studied literature tried to reflect how to bring the whole society as much as possible in touch with the current reality, the act of awareness of reality being a first step towards sustainable development.

The data was collected in the period of 2019-2024 and they have been logically structured and critically approached and finally summarized and interpreted in order to estimate an image on the sustainable future for all generations.

RESULTS AND DISCUSSIONS

Climate change and its impact negative impact and measures to mitigate its effects

Climate change is a challenge that requires an action-based approach at international, regional, national and local level.

The 2030 Agenda together with the Paris Agreement on climate change have become the roadmap vector for all countries in the European Union and in Europe towards a world that looks forward to a circular economy.

Problems of circular economy- causes and solutions for implementation in Romania

The circular economy is the type of economy that promotes the reuse, recycling and regeneration of goods, thereby reducing landfilling or incineration of waste, a destructive practice that affects human health and the environment.

The circular economy is the answer to the apparent contradiction between sustainable development or caring for nature and economic growth, the dynamism of which is unprecedented in the history of the European Union.

The circular economy model is the opposite of the linear economy (it is based on the extract - use - discard idea which has proven to be oblivious to the problems caused by the waste of resources and the negative effects on nature and the environment

As products, raw materials are becoming increasingly difficult to acquire, prices are in line with global resources, extremely fluctuating and ever increasing.

To avoid the extractive industry today is almost impossible, although the depletion of natural resources is clearly a reality.

The advantages of the circular economy include:

- Environmental protection;
- Reduced dependence on raw materials;
- Creating new jobs and improving the economy for consumers.

If the current rate of exploitation continues, we are expected to run out of resources by 2050, hence the need to move to a fully circular economy.

Future generations will have to choose between slowing down the pace of research development and the scarcity of natural resources.

Today, according to the data in the reports presented, Romania is still a country with natural resources (e.g. crude oil, coal deposits, tungsten, nickel, silicon, gold, silver, titanium, etc.).

THE CIRCULAR ECONOMY MODEL



Fig.1. The circular economy model

Source: Adapted after the European Parliament [12].

Financial support from the EU and Romania's Government for implementing circular economy in the country

Measures, such as financial support of each country under the climate change plan, should emphasize water conservation, crop rotation, public planning, public awareness, raising the height of dykes, increasing renewable energy, forest conservation, associated with the negative effects of climate change.

Today we have clear evidence that every country has received its climate finance contribution under the Paris Agreement. In the countless conferences which were running in many of the countries of the world, it was emphasized that the directive on renewable energy by 2030 seems to be the most ambitious with reversible results.

Contribution to Green Deal Agenda in Romania

The Foundation "The Ecological Initiative and Sustainable Development Group" of public utility under the high patronage of the General Secretariat of the Government, was established on 30 August 2005.

The aim of the "Ecological Initiative and Sustainable Development Group" Foundation is to contribute to the concept of sustainable development and environmental protection in Romania.

For this purpose, the "National Forum for Sustainable Development and Environmental Protection" was created, which had the possibility to provide an institutional framework for responsible debates on Romania's development issues before and after EU accession.

The "National Forum for Sustainable Development and Environmental Protection" has provided, during its 20 years, the motivations and tools for the rebirth of a responsible civil spirit capable of bringing together public and private institutions in the elaboration and active support for the creation of national and international programs for development, environmental protection and climate change.

Over 300 events, meetings organized over these years have built the basis for consultations at national and international level with broad participation of civil society structures and organizations, business representatives, organizations, academic and university scientific research, media representatives and last but not least with the state organizational structures responsible for carrying out activities of sustainable development and environmental protection.

On 17 May 2010, the EISDG Foundation had as its guest of honor Mr. Lester Brown, President and Founder of the World Watch Institute and the Earth Policy Institute, two global, non-profit, service-based research organizations on climate change and projects to restore natural terrestrial and marine ecosystems destroyed by massive over-industrialization and enthronization.

Lester Brown was the first person in the world to advocate the introduction of the concept of

the eco-economy in 2001, according to the book "Eco-Economy: Building a future for the Earth".

In 2010, it was the first official visit to Romania, on the occasion of the 17 May forum and the first World Watch Institute and Earth Policy conference organised in a Central and South-Eastern European country. Thus, the EISDG Foundation has signed a partnership with the prestigious World Watch Institute and Earth Policy, succeeding for over 18 years to translate numerous books by Lester Brown.

In 2019, September 26, we left the forum "Towards a Sustainable Europe by 2030" [30, 31]. The 2030 Agenda for Sustainable Development and the 17 SDGs. NATO factor of geostrategic stability 2019-2030", in Bucharest, and in the week of 23-30 September 2019 at the UN during the General Debates of the 74th session of the UN General Assembly held in New York, Romania supported the acceleration of the implementation of the 2030 Agenda for Sustainable Development, as well as the regional role assumed by organizing events to promote regional partnerships, using the expertise to increase the effectiveness, accountability and participatory nature in achieving progress on the 2030 Agenda.

The Forum continued to present the 2030 Agenda for Sustainable Development and the 17 SDGs in all 8 regions of Romania. The second forum was held in Cluj-Napoca at the House of Culture of Students, on November 14, 2019 with the participation of all socio-economic actors, local bodies, guests from the Romanian Government and the Romanian Presidency.

The Forum "Towards a sustainable Europe by 2030; 2030 Agenda for Sustainable Development and the 17 SDGs; NATO Geostrategic Stability Factors 2019-2030." continued in 2020 in Craiova on January 11-12, in the electric scooter factory in Craiova, the only electric transport factory in Romania, built on the Sectoral Operational Program "Increasing Economic Competitiveness" in the financial year 2007 -2013.

The "Ecological Initiative and Sustainable Development Group" Foundation has supported the continuation of this series of forums, so on 21.12.2021, it organized an

online debate, the forum "Towards a Sustainable Europe by 2030", focusing on the most important event of the year, the UN Climate Change Conference (COP26)[31].

Based on the above affirmations, the scientific contributions of the Earth Policy Institute and the World Watch Institute, as well as part of the actions undertaken by civil society, of which the GIEDD Foundation is a part, have contributed to the foundation of the Green Deal policies and the 2020 - 2030 Agenda.

As a part of the Green Deal Agenda Goals, in June 2022 The "Ecological Initiative and Sustainable Development Group" organized the Forum dedicated to The World Food Safety Day with the theme: "Safer Food-Better Health".

On April 15th 2023 it was organized the Forum dedicated to World Earth Day "Invest In Our Planet!" and on 13 of October, The Forum dedicated to the International Day for Disaster Risk Reduction, events that were also organized in 2024, respecting the theme each year provides.

The actions of the Foundation has been always sustained by The Romanian Academy, the Academy of Agricultural and Forestry Sciences, The University of Agronomic Sciences and Veterinary Medicine of Bucharest and The National Institute for Earth Physics, which soon became partners in the events.

Important contributions have had various research and development institutes such as:

- National Institute for Research - Development in Informatics - ICI Bucharest, on the occasion of Digital Innovation Summit Bucharest (DISB), 16-18 April 2024 [19];

- Also, National Research and Development Institute for Animal Biology and Nutrition Balotesti, at the launching of the project: Climate Smart Advisors, Connecting and Mobilizing the EU Agricultural Advisory Community to Support the Transition to Climate Smart Farming, which was held on 29th March 2024 [20].

The Ministry of Research, Innovation and Digitisation played an important role in 2023 in the international event on "Danube and Black Sea Lighthouse" as part of the EU Mission "Restore our Ocean and Waters by

2030" under the Horizon Europe programme [32].

Let's not forget about the contribution of the governmental institutions, civil society together with small and medium enterprises, municipalities and county councils, as well as partnerships with some institutions of the European Union.

The debates aim to disseminate information on the UN reports of the 2030 Agenda, but also on the Climate Change Agenda.

Romania, as a member country of the European Union, but also as a member country of the

United Nations Organization, is joining the two major bodies in the effort to build a safer and better world for all.

Of course, Romania supports efficient multilateralism and a rules-based international order in which the UN plays a central role. The European Union is also the successful integrator in terms of negotiating the sustainable development goals (it is a useful tool to project the values and objectives of the European Union globally, providing a useful common framework for international partnerships.

In 2019, Romania participated in the 75th UN General Assembly Conference where commitments were signed on achieving the Sustainable Development Goals -SDGs by 2030.

Sustainable Development Goals for Romania by 2030

Year after year, the "Ecological and Sustainable Development Initiative Group" Foundation advocates for better environmental protection and the fight against climate change. In almost 20 years of activity, it carried out reforestation campaigns, forums for sustainable development with partners such as civil society, academia, the Romanian Government, the European Union, World Watch Institute, Earth Policy.

"The Ecological and Sustainable Development Initiative Group" Foundation was the first to present at the National Institute for Economic Research "I.C. Kirițescu", on the same day as the UN Forum, the commitments presented by Romania on meeting the conditions for sustainable development by 2030.

The 2030 Agenda for Sustainable Development has set 17 goals (SDGs - Sustainable Development Goals) [34].

The 17 Sustainable Development Goals (SDGs) of the 2030 Agenda have been accepted by all countries present at the UN. These objectives are related to:

(1)No Poverty - Eradicate poverty in all its forms and in all contexts;

(2)Zero Hunger - Eradicate hunger, ensure food security, improve nutrition and promote sustainable agriculture.

(3)Health and well-being - Ensuring healthy lives and promoting well-being for all at all ages.

(4)Quality education - Ensuring quality education and promoting lifelong learning opportunities for all.

(5)Gender Equality - Achieving gender equality and empowering all women everywhere;

(6)Clean water and sanitation- Ensure availability and sustainable management of water and sanitation for all;

(7)Affordable and clean energy - Ensuring access to affordable energy for all in a secure, sustainable and modern way;

(8)Decent work and growth - Promoting sustained, inclusive and sustainable economic growth;

(9)Industry, innovation and infrastructure - Building resilient infrastructure, promoting sustainable industrialization and encouraging innovation;

(10)Reduced inequalities - Reducing inequalities within and between countries;

(11)Sustainable cities and communities - Develop cities and human settlements to be inclusive, safe, resilient and sustainable.

(12)Responsible consumption and production - Ensuring sustainable consumption and production patterns;

(13)Climate action - Take urgent action to combat climate change and its impacts;

(14)Aquatic life - Conservation and sustainable use of oceans, seas and marine resources for sustainable development;

(15)Terrestrial life - Protecting, restoring and promoting the sustainable use of terrestrial ecosystems, managing forests sustainably, combating desertification, halting and

repairing land degradation and halting biodiversity loss;

(16)Peace, justice and effective institutions - Promote peaceful and inclusive societies for sustainable development, access to justice for all and effective, accountable and inclusive institutions at all levels;

(17)Partnerships to achieve the goals - Strengthening the means of implementation and revitalizing the global partnership for sustainable development.

The 17 goals are commitments and actions to eradicate poverty, fight inequality and injustice and protect the planet by 2030.

Each member state is required to adopt its own National Renewable Energy Action Plan including sectoral targets.

Romania is undergoing an energy transformation, shifting from fossil fuel dependence to renewable energy sources. This transition is essential to achieve the goals of combating climate change and creating a more sustainable economy.

Romania aims to reach climate neutrality faster, aiming to reduce net greenhouse gas emissions by 85% by 2030 compared to 1990 levels and to reach climate neutrality by 2045, thus beating the previous deadline of 2050.

Romania has also increased its target for renewable energy in gross final consumption from 36.2% to 38.3% in 2030 (Romanian Government, Ministry of Energy, 2024) [24].

Romania's transition to renewable energy sources is well underway and the progress made so far is promising.

By investing in renewable technologies and promoting appropriate policies, Romania is moving towards a more sustainable and environmentally friendly energy system. It is essential that all stakeholders continue efforts to accelerate the transition and achieve a green and sustainable energy society.

The objectives and targets of the Agenda spell out the means to achieve the collective ambitions.

CONCLUSIONS

Most importantly, all world leaders have defined their commitment to poverty eradication.

Protecting the planet and ensuring that all people can enjoy peace and prosperity should become the norm.

It is international cooperation on sustainable development and the economic, social, environmental, governmental dimensions that have marked the roadmap towards a real world based on facts.

In 2024, the European Union appreciated Romania's involvement in achieving sustainable development objectives, as well as our country's cooperation with all partner countries (but also with the organizations interested in the success of this concept).

The United Nations High-Level Political Forum on Sustainable Development closely follows each country's engagement and dissemination of good practices, which are binding over time to achieve real results.

On June 5-6, 2024, the need for policy coherence for sustainable development and policies that integrate social, economic and environmental dimensions were presented in Brussels at the annual conference of the European Sustainable Development Network. The theme of the conference was one that calls for cooperation and alignment of all Member States, namely: "Modernizing Europe: developing transformative policies to achieve the Sustainable Development Goals".

The 2030 targets include bringing Romania closer to the average level of sustainable development indicators of EU member countries.

Achieving the objectives will ensure economic growth in our country and a reduction in the gap between Romania and EU member states. Of course, peace is clearly desired. The European Commission is committed to meeting the Sustainable Development Goals for 2030 and putting the Green Pact at the heart of its recovery efforts.

With only 5 years left (until 2030) to implement the 2030 Agenda coherently, we are still a long way off, not only as a country, but also the 194 other countries globally that strongly believe that action must be taken to address the challenges of the beginning of the third millennium.

Natural disasters, climate change, wars, poverty, gender inequality, an ageing

workforce and declining working capacity are really pressing issues of the 2030 Agenda.

A number of documents such as the EU Commission's Reflection Paper Towards a sustainable Europe by 2030, the EUROSTAT Monitoring Report on progress towards the Sustainable Development Goals in the EU context, the Joint Synthesis Report on supporting the Sustainable Development Goals, etc.

All these are documents and objectives in which Romania actively participates and has added value through the seriousness with which it has fulfilled the obligations of each member country of the European Union and the United Nations Organization.

Our future, Europe's and the world's, depends on a healthy planet.

ACKNOWLEDGEMENTS

Year after year, the Foundation "Group for Ecological Initiative and Sustainable Development", a public utility organization under the auspices of the Ministry of Environment, has organized campaigns for better environmental protection and the fight against climate change.

In 20 years of activity, it carried out reforestation campaigns, forums for sustainable development with partners from civil society, academia, the Romanian Government, the European Union, World Watch Institute, Earth Policy.

The study is a sum of information collected in the many years of activity, in the events organized and events attended.

REFERENCES

- [1]Berca, M., 2020, Management of the green world by photosynthesis modeling (report of thinking and comparative synthesis). Scientific Papers. Series "Management, Economic Engineering in Agriculture and Rural Development", Vol. 20(1), 89-94.
- [2]Blaj R. 2013, Green economy - The economy of the future. Scientific Papers. Series "Management, Economic Engineering in Agriculture and Rural Development", Vol. 13(4), 63-68.
- [3]Chereji, A.I., Chiurciu, I.A., Sebe, M., 2024, Agricultural and rural development in the context of a circular economy in the European Union and francophonie states. Case study: Romania. Scientific

- Papers. Series "Management, Economic Engineering in Agriculture and Rural Development", Vol. 24(2), 259-266.
- [4]Chiritescu, V., Gogonea, M. R., Andrei, R. D., Kruzslıcika, M., Gavřila, V.. 2013, Sustainable development through eco-economic development. Scientific Papers. Series "Management, Economic Engineering in Agriculture and Rural Development", Vol. 13(4), 73-76.
- [5]Croitoru, I.M., Grıgoras, M.A., Popescu, A., Grıgoras, B.A., 2024, Embracing the circular economy: a paradigm shift for sustainable prosperity . Scientific Papers. Series "Management, Economic Engineering in Agriculture and rural development", Vol. 24(2), 397-406.
- [6]Deloitte Romania, 2023, Webinar: CBAM reporting and charging - what does it mean and how does it apply?
- [7]Devcic, A., 2022, Economic management of rural areas: on the way from linear to circular economy. Scientific Papers. Series "Management, Economic Engineering in Agriculture and rural development", Vol. 22(2), 257-262.
- [8]Dobrota, E.M., Saracu, A.F., 2022, Public food procurement - a tool for a sustainable economy development in rural areas . Scientific Papers. Series "Management, Economic Engineering in Agriculture and rural development", Vol. 22(2), 301-310.
- [9]European Bank for Reconstruction and Development, EBRD in Romania, 2022, Green Economy Transition, Source:
https://www.ebrd.com/content/dam/ebd_dxp/assets/pdfs/country-strategies/romania/The-EBRD-in-Romania-Results-Snapshot.pdf, Accessed on 14.01.2025.
- [10]European Commission, A new Circular Economy Action Plan Communication, March 11, 2020, <https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1583933814386&uri=COM:2020:98:FIN>, Accessed on 16.01.2025.
- [11]European Commission, 2019, Communication From The Commission, The European Green Deal, <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52019DC0640>, Accessed on 04.02.2025.
- [12]European Parliament, Circular economy: definition, importance and benefits, <https://www.europarl.europa.eu/topics/en/article/20151201STO05603/circular-economy-definition-importance-and-benefits> , Accessed on 20.02.2025.
- [13]Frone, D.F., Frone, S., 2017, Circular economy in Romania: an industrial synergy in the agri-food sector. Scientific Papers. Series "Management, Economic Engineering in Agriculture and Rural Development", Vol. 17(2), 103-110.
- [14]Frone, D.F., Frone, S., Platon, V., Constantinescu, A., 2020, Green economy prerequisites of waste management. Scientific Papers. Series "Management, Economic Engineering in Agriculture and rural development", Vol. 20(4), 211-218.
- [15]Frone, D.F., Frone, S., 2022, Green policies to increase climate resilience and water security for rural development. Scientific Papers. Series "Management, Economic Engineering in Agriculture and Rural Development", Vol. 22(2), 335-344.
- [16]Gkountani, V.A., Tsoulfas, G.T., 2021, Circular economy and food production systems: tracing linkages and exploring synergies. Scientific Papers. Series "Management, Economic Engineering in Agriculture and rural development", Vol. 21(2), 281-288.
- [17]Gkountani, V.A., Tsoulfas, G.T., Mouzakitis, Y., 2022, Mapping sustainability assessment methods in agri-food supply chains: A circular economy perspective. Scientific Papers. Series "Management, Economic Engineering in Agriculture and Rural Development", Vol. 22(2), 361-368.
- [18]Mihai, F.C., Ulman, S.-R., 2023, Sustainable and Circular Management of Resources and Waste Towards a Green Deal, Chapter 4, Circular economy in Green Deal; strategies, pp.49-63, <https://doi.org/10.1016/B978-0-323-95278-1.00029-2>
- [19]National Institute for Research - Development in Informatics - ICI Bucharest, Digital Innovation Summit Bucharest (DISB), 16-18 April 2024.
- [20]National Research and Development Institute for Animal Biology and Nutrition (INCDBNA-IBNA Balotești), The launching in Romania of the project: CLIMATE SMART ADVISORS, Connecting and Mobilizing the EU Agricultural Advisory Community to Support the Transition to Climate Smart Farming, 29th March 2024.
- [21]Nicolau, A.I., Ionitescu, S., Moagar-Poladian, S., Tilea, D.M., Dinu, A.M., 2024, Challenges in implementing circular economy strategies in Romania. Scientific Papers. Series "Management, Economic Engineering in Agriculture and Rural Development", Vol. 24(1), 669-684.
- [22]Platon, V., Frone, S., Constnatinescu, A., Jurist, S., Banghiore, G., Moise, O., 2024, Circular economy and economic instruments in the EU and Romania, Romanian Journal of Economics/Revista Română de Economie, 59(2), 1-19.
- [23]Romanian Government, Ministry of Environment and Sustainable Development, Romania's National Strategy for Sustainable Development Horizons 2013-2020-2030, Bucharest 2008, p. 10.
- [24]Romanian Government, Ministry of Energy, Romania's Energy Strategy 2025-2035, with a 2050 perspective, 2024, [chrome-extension://efaidnbmninnbpcjpcglclefindmkaj/https://energie.gov.ro/wp-content/uploads/2025/02/Strategia-Energetica-a-Romaniei-2025-2035-cu-perspectiva-anului-2050.pdf](https://energie.gov.ro/wp-content/uploads/2025/02/Strategia-Energetica-a-Romaniei-2025-2035-cu-perspectiva-anului-2050.pdf) Accessed on 04.02.2025.
- [25]Sirbu, C., 2013, Strategy for the Danube region - Present and future in Romania. Scientific Papers. Series "Management, Economic Engineering in Agriculture and rural development", Vol. 13(3), 271-272.
- [26]Sirbu, C., 2016, Financing programs: Horizon 2020. Scientific Papers. Series "Management, Economic Engineering in Agriculture and Rural Development", Vol. 16(2), 283-286.
- [27]Sirbu, C., 2023, Renewable energy, an influential factor in the development of the Danube transport corridors Romania - Bulgaria and a support mechanism

in intermodal connections. Scientific Papers. Series "Management, Economic Engineering in Agriculture and Rural Development", Vol. 23(2), 585-590.

[28]Social Innovation Solutions, 2023, Climate Change Summit 2023.

[29]Tarhini, M., Turcea, V.C., Zapucioiu, L.F., Ion, R.A., 2022, Food waste status and reduction through the circular economy. Scientific Papers. Series "Management, Economic Engineering in Agriculture and Rural Development", Vol. 22(4), 731-742.

[30]The Ecological Initiative and Sustainable Development Group” Foundation, 2019, Forum “Towards A Sustainable Europe By 2030. 2030 Agenda For Sustainable Development”- 26th of September, Bucharest

[31]The Ecological Initiative and Sustainable Development Group” Foundation, 2021, Forum “Towards A Sustainable Europe By 2030. 2030 Agenda For Sustainable Development”- December, 21, 2021, Bucharest.

[32]The Ministry of Research, Innovation and Digitisation, 2023 "Danube and Black Sea Lighthouse" event as part of the EU Mission "Restore our Ocean and Waters by 2030" under the Horizon Europe programme.

[33]Turtoi, C., Toma, C., Gavrilescu, C., 2014, Statistical indicators for monitoring implementation of environmental measures. Scientific Papers. Series "Management, Economic Engineering in Agriculture and Rural Development", Vol. 14(2), 331-334.

[34]United Nations, 2022, Agenda for Sustainable Development, Source: <https://euinasean.eu/wp-content/uploads/2022/11/Blue-Book-EU-ASEAN-2022.pdf>, Accessed on 04.02.2025.

[35]Vytautas Magnus University (VMU) Lithuania, Online conference “Sustainable Bioeconomy Development 2024: Theory and Practice”, 8th May, 2024