



**10th INTERNATIONAL SCIENTIFIC
CONFERENCE ON CLIMATE CHANGE,
ECONOMIC DEVELOPMENT,
ENVIRONMENT AND PEOPLE
(CCEDEP 2023)**

**ECONOMIC, SECURITY AND
ENVIRONMENTAL
CHALLENGES OF REGIONAL
DEVELOPMENT**

25th of October, 2023.

International University of Travnik in Travnik,
Bosna i Hercegovina

Scientific Committee

- Prof. Rajko Kasagić, PhD, Chairman of the conference scientific committee and Rector of the International University Travnik in Travnik, Bosnia and Herzegovina
- Academic, Prof. Cariša Bešić, Vice - Rector for Students Affairs and Academic Programs, International University Travnik in Travnik, Bosnia and Herzegovina
- Prof. Krsto Mijanović, PhD, International University Travnik in Travnik, Bosnia and Herzegovina
- Prof. Mladen Radivojević, PhD, International University Travnik in Travnik, Bosnia and Herzegovina
- Prof. Dragan Golijan, PhD, International University Travnik in Travnik, Bosnia and Herzegovina
- Prof. Enes Huseinagić, PhD, International University Travnik in Travnik, Bosnia and Herzegovina
- Prof. Asib Alihodžić, PhD, International University Travnik in Travnik, Bosnia and Herzegovina
- Prof. Nenad Novaković, PhD, International University Travnik in Travnik, Bosnia and Herzegovina
- Prof. Sinan Alispahić, PhD, International University Travnik in Travnik, Bosnia and Herzegovina
- Ass. prof. Siniša Bilić, PhD, International University Travnik in Travnik, Bosnia and Herzegovina
- Andrea Andrejević Panić, PhD, Faculty of Business Economy, Educons University, Serbia
- Simonida Vukadinović, PhD, Faculty of Business Economy, Educons University
- Jelena Ješić, PhD, Faculty of Business Economy, Educons University, Serbia
- Gordana Racić, PhD, Faculty of Ecological Agriculture, Educons University, Serbia
- Zisis G. Vryzas Professor, Democritus University of Thrace Department of Agricultural Development, Greece
- Dr. Zamira Shkreli, Faculty of Social Sciences, Head of the Center of the Albanian Language Studies
- Dr Katarzyna Strzała-Osuch, full professor Powiślański University in Kwidzyn, Poland

- Prof. Dr. Nataliia Vnukova, full professor, Chairholder of the Ecology Department and UNESCO Chair in Environmentally Clean Technologies, Kharkiv National Automobile and Highway University, Kharkiv, Ukraine
- Prof. dr. Patricija Jankovič, univ. dipl. prav. AREMA, Visoka šola za logistiko in management, Rogaška Slatina, Slovenija
- Azemina Mashovic, assistant professor, AUE-FON University Skopje, North Macedonia
- Prof. dr. Julia Dobrova, Vice-Rector for education and science, VUZF University
- Assoc. prof. Vesela Kazashka, PhD, Academy of Music, Dance and Fine Arts “Prof. Asen Diamandiev”, Plovdiv, Bulgaria
- Andrea Okanovi, PhD, Faculty of Technical Sciences, University of Novi Sad, Serbia
- Prof. dr. Biljana Dimitri - Dean of the Faculty of Psychology, University of “BIJELJINA”
- Dorota Kmie, PhD, Institute of Economics and Finances, Warsaw University of Life Sciences, Poland
- Ewa Papierowska, PhD, Institute of Environmental Engineering, Warsaw University of Life Sciences, Poland
- Prof. Alina Daniowska, Institute of Economics and Finances, Warsaw University of Life Sciences, Poland
- Zoran Filipovski, Ph.D. Vice-Rector for International Relations at the International Vision University
- Dunja Proki, PhD, Faculty of Environmental Protection, Educons University, Serbia
- Ass. prof. Aleksandar Chavleski, Faculty of Law & Political Science, AUE-FON University Skopje
- Asoc. Prof. Dr. Arjana Lacej, Universiteti i Shkodrës Luigj Gurakuqi, Albania
- Asoc. Prof. Dr. Anila Mesi (Dizdari), Universiteti i Shkodrës Luigj Gurakuqi, Albania
- Asoc. Prof. Dr. Angjelina Shllaku, Universiteti i Shkodrës Luigj Gurakuqi, Albania
- Dr. Vilma Piroli, Universiteti i Shkodrës Luigj Gurakuqi, Albania
- Dr. Elvisa Drishti, Universiteti i Shkodrës Luigj Gurakuqi, Albania
- Dr. Dalila Karakaci, Universiteti i Shkodrës Luigj Gurakuqi, Albania
- Dr. Nivis Ded, Universiteti i Shkodrës Luigj Gurakuqi, Albania

Organisational board:

- Prof. Enes Huseinagić, predsjednik
- Mirsad Imamović, MA
- Selma Otuzbir Mecan, MA
- Šejma Hajrić, BA
- Amira Perenda, MA
- Nehad Gaši, MA
- Anja Zelihić, BA
- Zlatko Mecan, MA
- Šejla Mušik, BA
- Aida Varupa, MA
- Maja Salkić-Smailkadić, MA
- Lejla Duraković, BA
- Andrea Andrejević Panić, PhD, Faculty of Business Economy, Educons University, Serbia
- Simonida Vukadinović, PhD, Faculty of Business Economy, Educons University
- Zoran Brljak, Ms.C, Faculty of Business Economy, Educons University, Serbia
- Jovana Kisin, Ms.C, Faculty of Business Economy, Educons University, Serbia
- Jelena Ješić, PhD, Faculty of Business Economy, Educons University, Serbia
- Srđan Milošević, PhD, Faculty of Business Economy, Educons University, Serbia
- Gordana Racić, Phd, Faculty of Ecological Agriculture, Educons University, Serbia
- Nikola Mićunović, PhD student, Univerzitet Donja Gorica, UDG, Podgorica, Montenegro

Content:

CONTEMPORARY TRENDS IN ORGANIZATIONAL BEHAVIOR AND DIGITAL NOMADISM	7
Drago Pupavac, Anto Malbašić	
ECONOMIC FLOWS IN BOSNIA AND HERZEGOVINA, CORRUPTION AND MEASURES AGAINST CORRUPTION..15	
Rajko Kasagić	
BONDS AS A QUALITY FINANCIAL INSTRUMENT FOR ACQUIRING THE MISSING FINANCIAL FUNDS IN THE WESTERN BALKAN COUNTRIES ABUSED BY THE CURRENT GOVERNMENTS TO REMAIN IN POWER FOR MULTIPLE DECADES.....	26
Husein Mehmedović, Šejma Hajrić, Narajan Mehmedović	
RISKS OF BUSINESS AND EMPLOYMENT IN MODERN BUSINESS CONDITIONS	36
Cariša Bešić, Srđan Bogetić, Dragan Čočkaló, Mihalj Bakator, Doloris Bešić-Vukašinović	
EU SUSTAINABLE STRATEGIES AND CIRCULAR ECONOMY	50
Simonida Vukadinović, Jelena Ješić, Andrea Andrejević Panić	
ARTIFICIAL INTELLIGENCE IN THE CONTEXT OF ENVIRONMENTAL CHALLENGES	57
Muhamed Ćosić, Nehad Gaši, Dina Vrebac, Nešad Krnjić, Bakir Čičak	
PRODUCTIVITY OF SERBIAN WHEAT GENOTYPES GROWN IN ECOLOGICAL AGRICULTURAL SYSTEM	68
Olivera Nikolic, Gordana Racic, Igor Vukelic, Zorana Sreckov, Zorica Mrkonjic, Mirjana Bojovic, Vesna Vasic	
SOCIO-ECONOMIC CHALLENGES OF THE APPLICATION OF ARTIFICIAL INTELLIGENCE	79
Siniša Bilić, Dušan Mraović, Ivica Opačak	

ENERGY CRISIS IN SERBIA: CAUSES, EFFECTS, GOVERNMENT RESPONSE AND POTENTIAL FOR SUSTAINABLE DEVELOPMENT	86
Jovana Kisin, Jelena Ignjatović, Azemina Mashovic	
CEMENT AS AN ENVIRONMENTALLY ACCEPTABLE COMPONENT IN THE MAKING OF CONCRETE	103
Zlatica Kuliš, Dževad Avdić	
SUSTAINABLE SUPPLY OF DRINKING WATER TO THE CITY OF ŠABAC	112
Suzana Knežević, Milena Milojević, Ljiljana Tanasić	
CORRELATION AND PATH ANALYSIS OF GRAIN YIELD AND COMPONENTS OF GRAIN YIELD OF MAIZE (<i>Zea mays</i> L.)	121
Zorana Srećkov, Jan Boćanski, Zorica Mrkonjić, Mirjana Bojović, Igor Vukelić, Gordana Racić, Vesna Vasić, Olivera Nikolić	
ECO-INNOVATIONS IN THE CREATION OF NEW CAPACITIES FOR ACHIEVING THE GOALS OF THE GREEN ECONOMY – CASE OF MIDAS PROJECT	129
Ana Marjanovic Jeromela, Andrea Anđejević Panić, Simonida Vukadinović, Jelena Ješić, Efi Alexopoulou	
THE DEVELOPMENT OF MODERN INFORMATION AND DIGITAL TECHNOLOGIES LEADS TO THE DEVELOPMENT / REPLACEMENT OF EMPLOYEES IN THE COMPANY, BUSINESS AND SOCIETY?	139
Nikola Mićunović	
CHALLENGES OF URBAN ECOLOGY IN CONSERVING AND ENHANCING BIODIVERSITY IN THE 21ST CENTURY ..	154
Milan Glišić, Ljiljana Tanasić, Suzana Knežević	
SCIENTIFIC RESEARCH WORK IN TRANSFORMATION ECONOMY OF BOSNIA AND HERZEGOVINA	166
Enes Huseinagić	

EU SUSTAINABLE STRATEGIES AND CIRCULAR ECONOMY²²

dr Simonida Vukadinović², prof. dr Jelena Ješić³, prof. dr Andrea Andrejević
Panić⁴

² Educons University/Faculty of Business Economy

Sremska Kamenica, Serbia, simonida.vukadinovic@educons.edu.rs

³ Educons University/Faculty of Business Economy Sremska Kamenica, Serbia
jelena.jessic@educons.edu.rs

⁴ Educons University/Faculty of Business Economy Sremska Kamenica, Serbia
andrea.andrejevic@educons.edu.rs

ABSTRACT: Existing economic systems are in transformation and the increase in the realization of economic activities in sectors that work according to the principles of the circular economy have positive effects on the quality of life of citizens and the environment. Also, circular economy lead to significant changes in the concept of economic development. The interdependence of the mentioned indicators needs to be researched and evaluated, both in the European Union and in individual member countries.

The circular economy model is one of the priorities of the EU Green Deal, with a high potential for improving sustainability and reaching net zero by 2050. The main goal of this paper is to present the EU Sustainable Strategies and their connections with the circular economy model.

The paper will also present examples of good practice operating according to the circular economy model in the EU and the countries of the Western Balkans.

KEYWORDS: Circular Economy, EU strategies, Sustainability, Knowledge Economy, Eco-innovations.

²²The research was supported by the Science Fund of the Republic of Serbia, Grant No. 303, Circular economy as a model of development that forms a new identity of the Republic of Serbia - EDUCIRC2022". and project "Transition of AP Vojvodina towards the circular economy: analysis of the level of knowledge and definition of inputs for strategic design". Project no. 142-451-2589/2021-01.

Circular economy model

Adopted in 2013, the VII action program of the European Union for the environment until 2020 (Decision 1386/2013/EU), contains 9 priority goals, one of which is the transition to a raw material-efficient, green and competitive low-carbon economy. This goal provided the basis for the further development of policies in the area of the circular economy.

In 2015, at the global level, two very important documents were adopted, the aim of which is to continue the promotion of sustainable development and mitigation of climate change. The first document is the 2030 Agenda for Sustainable Development, which the United Nations presented through 17 goals, and foreseeing that the signatory states mobilize all resources to eradicate poverty by 2030, combat inequality and find answers to the challenges of climate change. The Paris Agreement, another important document, aims to reduce the threat caused by climate change, which includes limiting the increase in the average global temperature (below 2 °C compared to the pre-industrial level and continuing efforts to limit the increase in temperature to 1.5 °C in compared to the pre-industrial level).

In the same year (2015), the European Commission adopted the first action plan for the circular economy, Closing the Circle - action plan for the circular economy (COM/2015/614), which included measures to encourage the transition of the European Union towards a circular economy, increase global competitiveness, creating new jobs and encouraging sustainable economic growth. The measures foreseen in the action plan related to the improvement of production, consumption, waste management, raw material market management, reduction of food wastage, reduction of the amount of plastic waste, innovation and investment, etc.

The EU program “Horizon 2020” was largely focused on the greater competitiveness of the European economy through the development and application of new technologies. Horizon 2020, funded research and innovation from 2014 to 2020 with a budget of almost 80 billion euros.

Necessity of circular economy

From the first report (Towards The Circular Economy, Ellen MacArthur Foundation) quantifying the possibility of a circular economy at the World Economic Forum in 2012, the idea of circular economy concept has been embraced with great speed. The model of circular economy (CE) has captured the interest of business leaders, governments cities, emerging innovators, designers and scientists, all round the world. Although it is not new (in

manufacturing period people had thought of making using of the products for next generations), the idea of this concept may be due to the compelling logic and economic rationale of the CE, as well as its potential for value creation has competitive advantage. Parallel, the harmful effects of the one-way usage in linear system of “take-make-waste” become fully apparent. The size of global economies is planned to increase fourfold till 2050., and the world’s population is expected to increase by 10 billion till then, with developing markets accounting for two-thirds of global consumption. The linear economy’s negative impacts (Lacy P. et al., xiii, 2020) in the in terms of waste, pollution, devastation of nature and climate change will be catastrophic.

“We consume about 1.75 times the capacity of the Earth, or 75% more natural resources than are renewed each year. Human’s appetite for scarce resources is expected to grow in the coming decades. For example, production of mined metals is expected to increase by as much as 250% by 2030 to meet demand, and other commodities are under similar pressure. Nothing less will meet the urgency of the moment if the world is to achieve the UN’s Sustainable Development Goals (SDGs) by 2030 and stay within the boundaries outlined in the Paris Agreement”. (Lacy P. et al., 4, 2020).

Western Balkans’ countries CE

The Western Balkans countries (WB Concerning to the economic, geopolitical status,) have Stabilisation and Association Agreements with the EU. WB is opening up trade and aligning the region with EU standards. The overall framework for the relations of the WB with the EU provides The Stabilisation and Association Agreements. The EU takes roll in political as well as financial support for the countries of the region, putting acent to the good neighbourly relations and making prosperity through regional integration.

The Sofia Declaration on the Green Agenda for the Western Balkans from 2020, has took the countries of the Western Balkans to implement measures not only in the field of climatechange and pollution prevention, energy development, transport and circular economy, but biodiversity development, sustainable agriculture and food production as well.

For all Western Balkans`, the leading trade partner for is EU (cca.70% of the region’s total trade). In the period 2011 to 2021, EU exports with the WB has grown by almost 130%. and WB exports to the EU have increased by 207%.

The countries of the region Real GDP growth for WB countries presents recession during 2020 (the biggest in Montenegro -15,3), and that predictions for the years after 2020 are years of regional recovery.

The Western Balkans region should look for solutions to reduce the consumption footprint and increase the rate of circular use of materials, which will in turn stimulate economic growth. The economies of the Western Balkans are currently at the lower end of resource productivity, with values (ie €0.35/kg) well below the EU average (ie €2.07/kg). resources should be kept in the economy as long as possible, maximizing their value and minimizing wastage. This includes good product design, efficient use of materials and energy, long life cycles, well-designed circular industrial sites, new business models and, when the product eventually becomes waste, effective recycling to provide high-quality secondary raw materials. As each industrial sector is different when it comes to resource use, waste generation and management, Western Balkan authorities are issuing permit applications for industrial plants should be encouraged to use EU best practice in different industrial sectors through “BAT reference documents (BREFs). The circular economy promotes innovative and more efficient ways of production and consumption, and businesses and consumers in the Western Balkans should be encouraged to adopt them. Local SMEs should take advantage of the business opportunities of increased resource efficiency and seek access to innovative technologies. Improving acceptance of the EU Eco-Management and Audit Scheme (EMAS) should also be encouraged.

However, catching up with other European regions would require sustainable annual GDP growth of around 7%. Currently, exports are still focused on medium and low-tech products, and innovation efforts mostly involve traditionally strong sectors. Although some economies of the Western Balkans are recording an increase in patent activity, the intensity of patenting in the region is still low, while on the other hand, the production of scientific publications shows a stable growth trend. Promoting a strategic green approach to public procurement will enable a more responsible and sustainable way of spending public money, support investment and can help level the playing field by ensuring that all bidders must follow the same standards.

One of the WB projects in the field of CE is The ENV.net3, that has been implemented since december 2017. For two years, the organizations participating in the project have been monitoring the transition from a “linear” to a “circular” economy. The term “circular economy” is the most familiar to stakeholders, but the meaning is still misunderstood. The public is not aware of what this type of economy means.

The biggest regional problem is waste, sustainable management, separation and its recycling, so the concern is unjustifiably duplicated and equated with the CE.

Good practice examples in EU and the Western Balkans

The EEB addresses pressing European environmental issues by setting the agenda, monitoring, advising and influencing the ways in which the EU deals with these issues. These include issues such as climate change, biodiversity, circular economy, air, water, soil, chemical pollution, as well as policies in industry, energy, agriculture, product design and waste prevention, among others. EEB is one of the founders of the Coolproducts, Right to repair and Wardrobe Change campaigns. EEB is an official member of the European Stakeholder Platform for CE promoted by the European Commission. EEB is active in promoting and accelerating the implementation of the CE model. While the primary focus of EEB's work is on the EU and its decision-making processes, the organization also works on broader regional and global processes at the UN and OECD level, particularly the Global Agenda for Sustainable Development. With the enlargement of the European Union, EEB established cooperation with Eastern European environmental organizations, helping them to use European regulations to strengthen national environmental protection policies.

Since 1999, as a non-profit organization, Punto Sud from Milan, Italy has been working in the field of international development cooperation to identify and test new ideas for solving social problems, both in Italy and around the world.

Zero Waste Europe Brussels, Belgium is a leading and fast-growing movement of communities, local leaders, businesses, experts, influencers and other “change agents” working towards the same vision: the elimination of waste in our society. Zero Waste Europe connects and supports a vibrant network of 31 national and local NGOs promoting the Zero Waste strategy as a way to make Europe more sustainable. Local groups are responsible for promoting Zero Waste, managing and monitoring the network of Zero Waste municipalities, as well as for cooperation with companies and decision makers. In order to become a member of Zero Waste Europe, an organization must agree with the principles of this organization and its hierarchy. Zero Waste Europe is very active in various areas and issues related to the circular economy: waste policy, cities and communities, consumption and production, climate energy and air pollution, getting rid of plastic, chemical recycling, waste trade.

Right to repair is a coalition of European organizations active on the issue of repair. They are located in several European countries and represent community repair groups, social economy actors, self-repairs and any citizen who wants to stand up for his right to repair. Right to Repair focuses on:

informing citizens and consumers about opportunities and obstacles to their right to repair, engaging them in the campaign and helping them understand that we have the power to make positive change for the planet and communities. The organization advocates for a universal right to repair and ambitious policy measures to achieve this through: access to repair information and spare parts for everyone - not just professionals, signaling the need for more repairable and long-lasting products, both nationally and at European level, getting a repair marking system on at the EU level in order to direct consumers towards durable products that can be repaired, strengthening the support network of Member States and business partners, promoting repair outside the EU in order to accelerate the transformation of the market at the global level.

The Ellen MacArthur Foundation is a UK-registered charity that aims to inspire people to rethink, redesign and build a positive future through a circular economy framework. Their mission is to accelerate the transition to a circular economy worldwide (more examples Vukadinovic, 2022).

Balkan Green Energy News is a leading, free online portal that follows the topics of sustainable energy development, climate change, environmental protection and mobility through regular publication of news, information on changes in legislation and investment opportunities in the Balkan. Balkan Green Energy News is a project of the Center for the Promotion of Sustainable Development (CPOR), a civil society organization based in Belgrade, Serbia. The goal of the organization is to contribute to the promotion of the concept of sustainable development in Serbia and other Balkan countries through awareness raising, advocacy, dissemination of information, education of relevant target audiences and organization of events. CPOR also creates partnerships and networks with other organizations, companies, institutions and individuals whose strategies, programs and activities contribute to the promotion of sustainable development.

Steel impex as center for recycling and waste and Ekofungi company that turns waste into sustainable business opportunities in cultivation of mushroom and vegetable, are two examples of good practice in implementation of CE model in The Republic of Serbia.

Conclusion

The circular economy model is implemented more or less in the EU as well as in Western Balkan countries. This model is obligation if we as humans plan to leave something for next generations living in the Earth.

The countries all over the world and its citizens have the task of enacting and implementing strategic documents, fund projects, present good practice examples, make consulting companies in field of CE in order to solve not only the problem of waste management, global warming, and economy expansion but also to raise the awareness of the people on the rationalisation of resources usage for the next generations living on this planet.

ACKNOWLEDGMENT

The paper is part of the project of the Provincial Secretariat for Higher Education and Scientific Research APV: Transition of AP Vojvodina to circular economy: analysis of the level of knowledge and definition of inputs for strategic design.

Also this paper is supported”The research was supported by the Science Fund of the Republic of Serbia, Grant No. 303, Circular economy as a model of development that forms a new identity of the Republic of Serbia – EDUCIRC2022”.

REFERENCES

- [1] Government of Serbia, Waste Management Program in the Republic of Serbia for the period 2022-2031. Belgrade 2022, pg. 1, 3, 4, 52. <https://srda.rs/wp-content/uploads/2022/02/Program-upravljanja-otpadom-u-Republici-Srbiji-za-period-2022-2031.-godine.pdf>
 - [2] European Commission Guidelines for the Implementation of the Green Agenda for the Western Balkans, Brussels, 2020. https://neighbourhood-enlargement.ec.europa.eu/system/files/2020-10/green_agenda_for_the_western_balkans_en.pdf [30.7.2022.] pg.7,8
 - [3] LacyP., Jessica Long, Wesley Spindler, The Circular Economy Handbook: Realizing the Circular Advantage, Palgrave Macmillan, London, UK, 2020, vii,ix, 3,4, https://doi.org/10.1057/978-1-349-95968-6_1
 - [4] Vukadinović S. Monografija: *Cirkularna ekonomija i zapošljavanje u Evropskoj uniji*, Univerzitet Educons, Sremska Kamenica, Srbija, M42=5, ISBN: 978-86-82088-08-0
 - [5] <https://www.systemekofungi.com/blue-economy/> [10.08.2023.]
 - [6] https://www.eeas.europa.eu/eeas/eu-and-western-balkans-towards-common-future_en [20.08.2022.]
 - [7] https://ec.europa.eu/neighbourhood-enlargement/system/files/2020-10/green_agenda_for_the_western_balkans_en.pdf [30.5.2021.]pg.7,8
- <https://balkangreenenergynews.com/rs/o-nama/> [10.08.2023.]

CIP - Каталогизација у публикацији
Библиотеке Матице српске, Нови Сад

551.583:330.34(082)

551.583:316.3(082)

551.583:502/504(082)

INTERNATIONAL Scientific Conference on Climate Change, Economic Development, Environment and People (10 ; 2023 ; Travnik)
Economic, Security and Environmental Challenges of Regional Development / 10th International Scientific Conference on Climate Change, Economic Development, Environment and People (CCEDEP 2023), Travnik, 25th of October, 2023. - Sremska Kamenica : Educons University, 2023 (Novi Sad : Tampograf). - 175 str. : ilustr. ; 24 cm

Tiraž 100. - Bibliografija uz svaki rad.

ISBN 978-86-82088-14-1

а) Климатске промене -- Економски развој -- Зборници б) Климатске промене -- Друштво -- Зборници в) Климатске промене -- Животна средина -- Зборници

COBISS.SR-ID 128000009