



Green Agenda for the Western Balkans

The Road Toward Effective and
Sustainable Implementation

Aspen Institute  Germany

waste environment **green** circular regional renewable transition
climate incentives market sustainable **energy** development st
y public business action management barriers agenda imp
plementation **economy** efficiency investment **emissions** resour
al **financing** economic **awareness** policies measures framew
islations supply **knowledge** investments potential priorities c

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Foreword

I would like to thank the Aspen Institute Germany for another year of successful cooperation, which included the organization of events such as the conference on “Democratization and the Role of Parliaments in the Western Balkans” in Berlin in June, or on “Green Agenda for the Western Balkans” in Skopje in October and the “Civil Society and Think Tank Forum of the Berlin Process” in November, just to name a few. These events brought together high-ranking representatives from the Western Balkans and the International Community, for an exchange of views and best practices, which in turn helped forge a common understanding of common challenges.

The current geopolitical situation is confronting us with unprecedented challenges. After Russia’s unprovoked, barbaric invasion of Ukraine, we Europeans are called to counter this aggression and to defend our freedom and values together. In times like these, solidarity and close international cooperation are more important than ever.

This includes the integration of the countries of the Western Balkans into the EU, where important steps forward were made in 2022: the beginning of EU accession talks with Albania and North Macedonia in July and the granting of

the EU candidate status to Bosnia and Herzegovina in December. Also, the substantial progress on visa liberalisation for Kosovo with a clear timeline is a very positive development. These steps revitalize the accession process and bring new dynamic into the Western Balkans.

As for the current energy crisis, the need for a green transition of all of our energy supplies toward renewable energies is clearer than ever. Consequently, this issue was at the heart of this year's Berlin Process summit on November 3, 2022, where leaders of the Western Balkans countries adopted a joint declaration on energy security and green transition. At the summit, Germany announced its support for the governments of the Western Balkan countries with the development of a regional energy and climate plan for the Western Balkans ("Western Balkans Climate Partnership").

Of crucial importance in this regard is the Green Agenda for the Western Balkans, adopted by the countries at the Sofia Summit in November 2020, which aims at spurring the long-term economic recovery of the Western Balkans and their convergence with the EU. It is financed through EU funds amounting almost to 6 billion EUR and additional loans from international financial institutions. The transition from coal toward renewables is not only increasing the political and economic independence but also improving the life and health of citizens! We should not accept that the air in several cities in the region still ranks among the most polluted in the world during the heating season. Making use of the huge potential for decarbonisation and green transition should therefore be a political priority for all governments both in the region and the EU.

The German Government remains committed to working together with all six Western Balkans countries in order to achieve these goals. We support our Western Balkans partners in their green transition and in aligning with EU standards. Germany is supporting the implementation of a portfolio of approximately 2.2 billion EUR for clean energy projects under the framework of the German Financial Cooperation through the German Development Bank KfW.

I highly value the contribution of the Aspen Institute Germany to the dialogue between Germany, the EU, and the Western Balkans. This exchange is more important than ever. That is why I am particularly looking forward to the next inspiring meetings and discussions under this format!

Dr. Anna Lührmann
Minister of State for Europe and Climate
German Federal Foreign Office

Introduction

Dear friends and supporters of the Aspen Institute Germany,

2022 was a year like no other for Europe – it was a year where the ugly face of war showed itself on our continent again. While many of us from Western Europe have never experienced the horrors of war, they are not a distant memory for people in the Western Balkans who lived through the Yugoslav Wars during the 1990s. The ripple effects of the *Zeitenwende* brought on by Russian aggression in Ukraine were felt in the region in a number of different ways.

The most immediate impact of the war for people in the Western Balkans were rising energy prices and concerns over energy supply. Faced with a potential crisis, governments were forced to prioritize short-term energy security. Plans for coal phaseouts were put on hold as the implementation of the Green Agenda, the regional strategy to align the Western Balkans with the European Green Deal, and achieve carbon neutrality by 2050, quickly slid down the list of priorities. Yet the current situation highlights more than ever the urgent need to build sustainable, stable energy infrastructure. Moreover, of course, the pressing need to reduce carbon emissions and prevent further environmental degradation has not dissipated either.

In 2022, after years without any major success stories, noticeable progress was made again in bringing the Western Balkans closer to the EU: Albania and Montenegro started EU accession negotiations, and Bosnia and Herzegovina was recognized as a candidate country. However, there are still a number of hurdles to EU accession for all Western Balkan countries, such as persistent corruption problems in the region and deficits in the areas of economic development, rule of law, and good governance.

This publication provides an overview of these recommendations as well as the input papers on the Green Agenda for the Western Balkans that guided the discussions, written by civil society experts and academic researchers.

We would like to thank the German Federal Foreign Office for its generous financial support of the Aspen Western Balkans Stakeholder Forum through the Stability Pact for Southeast Europe. We also owe thanks to the Ministry of Foreign Affairs of the Republic of North Macedonia for the productive and effective collaboration in co-organizing the conference in Skopje. Finally, we are grateful to all participants whose insightful contributions created a collegial culture of exchange and produced a sizable list of actionable policy recommendations. Finally, we would like to thank Aineias Engstrom, Selina Neumann-Wengler, and Maren Sass for their contributions to the editing process of this publication.



Dr. Stormy-Annika Mildner
Executive Director



Tina Bories
Program Officer

Policy Recommendations ...

The EU Green Deal aims to achieve “no net emissions of greenhouse gases by 2050, economic growth decoupled from resource use, no person and no place left behind.” The Green Agenda is a similar roadmap for the countries of the Western Balkans to adapt to these EU climate targets. Albania, Bosnia and Herzegovina, Kosovo, Montenegro, North Macedonia, and Serbia all committed themselves to the Green Agenda at the Sofia Summit in November 2020. The Green Agenda is structured along five pillars: (1) cleaning energy sources and protecting the climate; (2) moving to a circular economy; (3) depolluting air, water, and soil; (4) building sustainable agriculture and food systems; and (5) protecting biodiversity and ecosystems. However, implementation is oftentimes lacking due to the (perceived) financial, economic, and social costs of the transformation processes, diverging interests of societal actors, information gaps among decision-makers, and insufficient regional cooperation. A green transition, especially in the field of energy, is inevitable in order to tackle the climate crisis, mitigate its effects, and ensure future economic development and competitiveness as well as social justice and cohesion.

On October 4-7, 2022, the Green Agenda took center stage at the second conference of the Western Balkans Stakeholder Forum 2022 of the Aspen Institute Germany, this year’s format of the Institute’s annual regional dialog. In collaboration with the Ministry of Foreign Affairs of the Republic of North Macedonia, Aspen Germany organized the three-day gathering in Skopje, building on its strong track record of promoting regional cooperation and fostering closer ties between the Western Balkans and EU member states. The conference gave experts from civil society, business, and academia a chance to hold constructive discussions with decision-makers on topics like energy, food security, and circular economy and to discuss and identify central challenges and potentials of the Green Agenda for the Western Balkans.

Guided by five input papers from regional experts, the conference in Skopje featured five roundtable discussions on the Green Agenda in the Western Balkans. A key priority was to foster a holistic discussion on this topic that goes beyond technical specificities and includes the social changes that could result from a green transition.

The Western Balkans Working Group of Aspen Germany convened in Berlin in November 2022. During this closed-door session, high-level representatives from the region entered into a productive exchange with each other as well as with decision-makers from Germany and selected experts from civil society, taking up the key points from the conference in Skopje. They discussed challenges to the implementation of the Green Agenda and sought to find common ground on retaining the impetus that had brought forth the initial commitment to the Green Agenda in 2020.

The Green Agenda Conference in Skopje and the Working Group meeting in Berlin led to the formulation of several policy recommendations that reflect the priorities voiced by decision-makers and experts from the Western Balkans. The closed-door sessions followed the Chatham House Rule; hence, the recommendations are not attributed to specific individuals or organizations. This summary only provides a collection of the points raised by workshop participants. They do not necessarily reflect the position of Aspen Germany or the German Federal Foreign Office on the issues addressed.

... for Governments in the Western Balkans

I. Implementing the Green Agenda and Ensuring a Just Transition:

Local level:

- Strengthen local governance capacities to improve the ability of local governments in the Western Balkans to conduct proper environmental impact assessments, and decentralize the implementation of the Green Agenda.
- Raise awareness about the importance of clean energy and environmental protection both among the population and at the policy level, including by sensitizing youth to the severity of the issue and the potential for the future of the energy transition through education. More public campaigns are needed to place climate change more squarely on the political agenda.
- Counter public apprehensions of being confronted with unsightly renewables technologies in their immediate vicinity through decentralized energy grids, strategic landscaping, educational campaigns, and positive messaging.

National level:

- Decentralize the implementation of the Green Agenda by incorporating local municipalities and encouraging more private sector involvement to relieve some of the burden on national public administrations.
- Reconsider national industrial policies in order to adapt them to the new objectives set out by the Green Agenda and align them with the EU acquis.
- Strengthen collaboration with the banking system in promoting green financing.
- Ensure sustainable sourcing of the materials used to build up renewables. Too often, the construction and maintenance of renewable energy production capacities has caused high levels of emissions and environmental damage.
- Prioritize transitioning in the heating and transportation sectors as they require shifts to-

ward more renewables most urgently; energy efficiency could best be improved in the construction sector.

- Respect emission limits that governments have committed to and avoid subsidies absorbing energy costs and funding black and brown energy.
- Look beyond short-term plans that would secure re-election and envisage a long-term transition strategy that goes beyond procuring sufficient heating for voters this winter.
- Work to find a sustainable balance between economic and environmental interests instead of posing the question which of the two should be prioritized.
- Ensure a “just” transition by assuring that the social impact of the Green Agenda finds consideration in all implementation mechanisms. Democracy and rule of law are critical components to assure enforcement of existing laws, strengthen business’ position and security, and empowering communal approaches.

Regional level:

- Strengthen regional cooperation to ease the green transition by lowering costs and avoiding inefficient parallel structures in implementing the Green Agenda. Regional alliances are crucial to the transition process, both in the form of stronger partnerships between the Western Balkans (WB) and the EU on the one hand, as well as among WB countries on the other.
- Maintain momentum for the Green Agenda by aligning Western Balkans markets more closely with European Union (EU) schemes and recognize that the implementation of the Green Agenda is a crucial step in the EU accession process of the WB.

II. Energy Transition and Energy Security:

Local level:

- Decentralize energy supplies to counteract the vested interests of brown and black industries and allow private households to produce energy and contribute to the country’s grid.

- Ensure that future energy strategies are transparent and enable functional and meaningful public participation.
- Encourage scaling up of smart strategies that include local populations. Measures to implement the energy transition (e.g. building power stations) must avoid causing harm to biodiversity or wasting financial and technical resources.

National level:

- Move faster and more decisively to implement an energy transition and reaffirm commitments already made. Where needed, governments should be reminded of their commitments.
- Recognize that renewable energies are the only reasonable way to secure energy independence.
- Shift away from short-term plans which favor the reliance on brown and black energy supplies towards long-term visions which favor sustainable renewables even in cases where renewables may have higher initial costs.
- Develop more profitable incentives to encourage companies and private investors to install and operate renewable capacities.
- Adapt ad-hoc efforts to mitigate the current energy crisis to be more complementary to the overall vision of the Green Agenda.
- Ensure that energy transition strategies are coordinated and multidisciplinary, involving social, legal, economic, technical, and educational considerations.
- Stop government subsidies for dirty energy sources that hurt the competitiveness of energy companies that focus on green energy.
- Move past the idea that coal is a cheap energy source.
- Seek out expert-informed recommendations during the policy-making process rather than trying to draft solutions to the energy crisis without specific expertise.
- Foster innovation more rigorously and bring about policy reforms. This would include incentivizing private energy production as well as improving property rights to prevent companies from leaving the country.

Regional level:

- Develop robust platforms for regional cooperation and exchange while critically examining current arrangements.
- Facilitate pragmatic regional integration of energy markets to reduce volatility in electricity prices and allow for higher political acceptance of less regulated electricity markets.
- Use the energy crisis exacerbated by Russia's war in Ukraine as a catalyst for a green transition.

III. Sustainable Agriculture and Food Security:

Local level:

- Focus on the practical implementation of steps at a more granular, local level rather than on strategic documents and declarations of intent.
- Reduce food waste along the supply chain, from farm to fork, to improve food security.
- Support small farms to increase the region's international competitiveness. This includes urgent land reform to prevent further land fragmentation.

National level:

- Develop and adopt national food-security strategies to have contingency plans in place to ensure the sufficient and acute provision of food to domestic markets in critical situations.
- Make available large expanses of unused agricultural land to produce strategic crops. In this regard, a long-term solution for the management of state land is needed, perhaps the establishment of national agencies or funds for agricultural land. This management strategy should carefully weigh industrial interests against biodiversity and conservation needs.
- Provide support for the industrialization of food production and distribution and ensure employment opportunities.
- Improve the rule of law and combat corruption to avoid unnecessary barriers to the implementation of the Green Agenda.

- Give civil society a more prominent role to steer the discussion and help apply more pressure on the government. Expert committees that provide implementation recommendations and subsequently track governments' progress have proven useful to this end in the past.
- Promote EU integration as this is a condition-sine-qua-non for farmers' global competitiveness.

Regional level:

- Improve university curricula and enhance regional cooperation to promote research and innovation in the agricultural sector through a regional research collaboration framework. Curricula need to be adapted to teach innovative agricultural techniques that take climate adaptation into consideration and expand green and sustainable agricultural technologies. While universities are responsible for developing the appropriate curricula, they require increased funding to do so.
- Promote the exchange of knowledge and resources on a regional level. This could prove particularly useful for cross-border practices of responding to the climate crisis.
- Shift the research focus from technology generation to technology transfer.

IV. Circular Economy:

Local level:

- Promote circular economy (CE) approaches at all levels of the region and across the entire value chain.
- Raise awareness for CE to boost public support through campaigns that introduce the full prices of products, such as the "Pay As You Throw" scheme.
- Counteract the public misconception of CE as a form of waste management with awareness and education campaigns that explain the complexity of the issue and emphasize the immense potential benefits inherent in CE.

National level:

- Include CE in legislation and strategic documents since funds cannot be properly allocated if circular economy is not explicitly named in the relevant decision papers.
- Make relevant data on CE approaches more readily available.
- Increase funds set aside for CE, especially in the form of environment schemes.
- Seek out a wider exchange with businesses and non-governmental organizations aimed at building compromise and partnerships in securing energy and raw resources, as well as protecting employment.

... for the European Union and its Member States:

- Clear up discrepancies between the objectives set by the EU through the Green Agenda and their implementation in the Western Balkans. Current EU funding is too low and often contradictory across plans, regulation schemes, and execution.
- Increase EU support for the long-term implementation of the Green Agenda, beyond the 9 billion EUR currently allocated in the 2021-2027 budget and the 1 billion EUR energy support package for alleviating the short-term energy crisis.
- Incorporate Western Balkans partners in EU mechanisms designed to mitigate the energy and decarbonization crises exacerbated by the war in Ukraine.
- Accelerate EU accession talks to provide a positive incentive for closer coordination among WB nations and markets.
- Stand united and incorporate WB partners in mechanisms designed to mitigate the energy and decarbonization crises exacerbated by Russia's war.

- Make clear that energy security questions in the Western Balkans need to be tackled together with the EU instead of leaving the Western Balkans to create a unique and isolated solution.
- Address common threats such as the energy crisis, cross-border pollution, and rising inflation with a joint response; the Berlin Process is a key component to strengthening such cooperation and must be reinigorated.
- Counter WB reluctance to relinquishing lignite energy sources with regional solidarity and EU support. Constituents' interests in upholding the lignite industry must be included in the transition process in order to prevent spoilers.
- Seek a wider exchange between politics, business, and non-governmental organizations to find compromises and partnerships in securing energy and raw materials as well as protecting employment.
- Increase efforts to raise understanding and incentives for the implementation of the Green Agenda, both at the civil society as well as at the policy-making level.
- Be clear to that delays in the enactment of the Green Energy Plan would also delay EU accession for WB countries.

... for Experts, Civil Society, and the Media:

- The media needs to improve its expertise and reporting on climate change issues in order to effectively educate the public.
- Experts on the environment and energy transition need to be more vocal in order to uphold pressure and prevent governmental inertia. While ineffectiveness was often ascribed to insufficient funds, much of this could be circumvented with unlocking business potential and empowering communities.
- Experts should liaise with activists to help them formulate simple narratives and calls to action for the public in order to overcome lacking awareness and misconceptions that can easily be exploited by right-wing narratives.
- Experts should provide recommendations to policy-makers lacking specific expertise that cannot be expected to draft detailed solutions to the energy crisis.
- Raise awareness of parliamentarians about the benefits of the Green Agenda and CE.

Implementing the Green Agenda in the Western Balkans: Just Transition and Political Barriers

Milica Uvalić · University of Perugia

Following the European Green Deal that sets climate and environment-related targets by 2030, the six Western Balkan countries – Albania, Bosnia and Herzegovina, Kosovo, Montenegro, North Macedonia, and Serbia – committed themselves to implementing the Green Agenda at the Sofia Summit in November 2020. The Green Agenda is part of a new growth strategy for the Western Balkans and rests on five main pillars:

- *Climate protection and decarbonization, with the aim of reducing greenhouse gas emissions and aligning with EU’s carbon neutrality by 2050;*
- *Moving toward a circular economy;*
- *Reducing air, water, and soil pollution;*
- *Promoting sustainable methods of food production;*
- *Protecting biodiversity and eco-systems.*

The Green Agenda is supported by the European Commission’s Economic and Investment Plan (EIP) for the Western Balkans adopted in October 2020 that provides nine billion EUR in grants and aims to attract additional investments worth 20 billion EUR through guarantees over the next seven years. Out of the ten flagship projects proposed in the EIP, four focus on priorities directly related to a green transition. The area of clean energy includes three flagships: flagship 4 on renewable energy; flagship 5 on transition from coal, and flagship 6 on the renovation wave, while the area of environment and climate includes one flagship 7 on waste and wastewater management. A Decarbonisation Roadmap was also adopted in 2021.

All Western Balkan countries except Kosovo are also signatories to the 2006 Energy Community Treaty, which states the countries’ commitment to reform their energy sector in line with European

Union (EU) directives and regulations, gradually carrying forward various objectives regarding renewable energy, energy efficiency, carbon dioxide emissions, etc. The Western Balkan countries are signatories of other important agreements, including the United Nations (UN) Framework Convention on Climate Change and the UN Sustainable Development Goals that include a number of goals relevant to a green transition.¹

The national governments of the Western Balkans, in cooperation with the Regional Cooperation Council, have prepared the South East Europe (SEE) 2030 Strategy and an Action Plan for the implementation of the Sofia Declaration on the Green Agenda during the 2021-2030 period that defines the objectives and sets desired targets for each country. These documents provide the main framework of commitments made by the Western Balkan countries regarding the necessary reforms to address their core climate and environmental challenges.

Current Situation in the Western Balkans

The Green Agenda includes important objectives that are clearly inter-related, representing an ambitious and complex agenda for the Western Balkan governments. The legislative framework regarding the most important issues has been prepared and adopted, but most countries have not yet implemented the necessary reforms. According to prevalent assessments (e.g., by the European Commission, the Energy Community Secretariat, the European Bank for Reconstruction and Development, the OECD, and the World Bank), the Western Balkans are today at the very beginning of their green transition. Although governments have adopted specific laws that provide the legal and regulatory frameworks regarding energy and climate, these frame-

¹ E.g., goal 6 on sustainable water & sanitary systems; goal 7 on affordable energy; goal 13 on combating climate change and its impacts; goal 14 on the conservation of oceans, seas and marine resources; goal 15 on sustainable ecosystems, forests, combating desertification, land degradation, biodiversity loss.

Table 1: Western Balkans' Strategic and Legislative Frameworks on Energy and Climate

	Energy Strategy	Low-carbon Development Strategy	Climate-change Law	Energy Efficiency Strategy	Renewables Development Strategy
Albania	National Energy Strategy 2018-2030	National Climate Change Strategy (endorsed in 2019)	Law on Climate Change (adopted in December 2020)	National Energy Efficiency Action Plan expired in 2020	National Action Plan for Renewable Energy Resources in Albania 2019-2021
Bosnia and Herzegovina	Framework Energy Strategy 2035	Climate Change Adaptation and Low Emissions Growth Strategy 2025	-	Action Plan for Energy Efficiency of Bosnia and Herzegovina 2019-2021 (NEEAP BiH) (final draft)	National Renewable Energy Action Plan 2020
Kosovo	Energy Strategy 2017-2028	Climate Change Strategy 2019-2028 and Action Plan on Climate Change 2019-2021 (approved)	-	National Energy Efficiency Action Plan (NEEAP) 2019-2021 (draft)	National Renewable Energy Action Plan (NREAP 2011-2020)
North Macedonia	Energy Development Strategy 2030	Long-term Strategy on Climate Action and National Action Plan on Climate Change (drafts)	Law on Climate Action (draft)	Fourth National Energy Efficiency Action Plan (NEEAP) (adopted)	Renewable Energy Action Plan Until 2025
Serbia	Energy Sector Development Strategy for the Period until 2025; Energy Development Strategy 2040 (draft ongoing)	Draft low-carbon development strategy	Law on Climate Change (adopted in 2021)	Fourth National Energy Efficiency Action Plan (NEEAP) (until 2021) (adopted)	National Renewable Energy Action Plan 2020 (adopted in 2013)

Source: Adapted from OECD, *Multi-dimensional Review of the Western Balkans. From Analysis to Action*, April 2021, section 14.2.

Note: **Green**: document approved and valid. **Black**: document still valid but requires revision. **Blue**: draft document exists, but has not yet been approved. **Red**: document expired.

works are incomplete, while some of the legislation is outdated (Table 1). Moreover, many of these laws have not yet been implemented and enforced.

Available indicators on various aspects of the green transition are not very encouraging. A synthetic indicator developed by the European Bank for Reconstruction and Development (EBRD) measures the green quality of a sustainable market economy on the basis of various quantitative and qualitative indicators. This indicator suggests that the Western Balkan countries are lagging behind today's eleven EU member states in Central Eastern Europe with regard to the green quality of a sustainable market economy (Figure 1).

More specific indicators reveal that Western Balkan countries have a very high energy and carbon intensity in their production. All countries except

Albania have a much higher energy intensity in their gross domestic product (GDP) than do EU member states (all except Bulgaria). This particularly refers to Bosnia and Herzegovina, Kosovo, and Serbia (Figure 2).

The situation is even less satisfactory regarding the carbon intensity of GDP (CO₂ emission per unit of GDP) since most Western Balkan countries have a ratio several times higher than the EU average. Again, Albania is an exception, thanks to the country's reliance on hydropower (Figure 3). Similarly, the carbon intensity of electricity production in the Western Balkans exceeded more than three times that of the EU-27 average in 2020.² The Western Balkan countries are not part of the EU Emissions Trading System (EU ETS), although the first steps in this direction have been taken.

² Energy Community Secretariat, Secretariat's WB6 Energy Transition Tracker – Third Edition, Vienna: Energy Community, 2021, 5, <https://www.energy-community.org/regionalinitiatives/energy/Tracker.html> (accessed January 2, 2023).

Figure 1: EBRD Scores on Green Quality of a Sustainable Market Economy, 2021

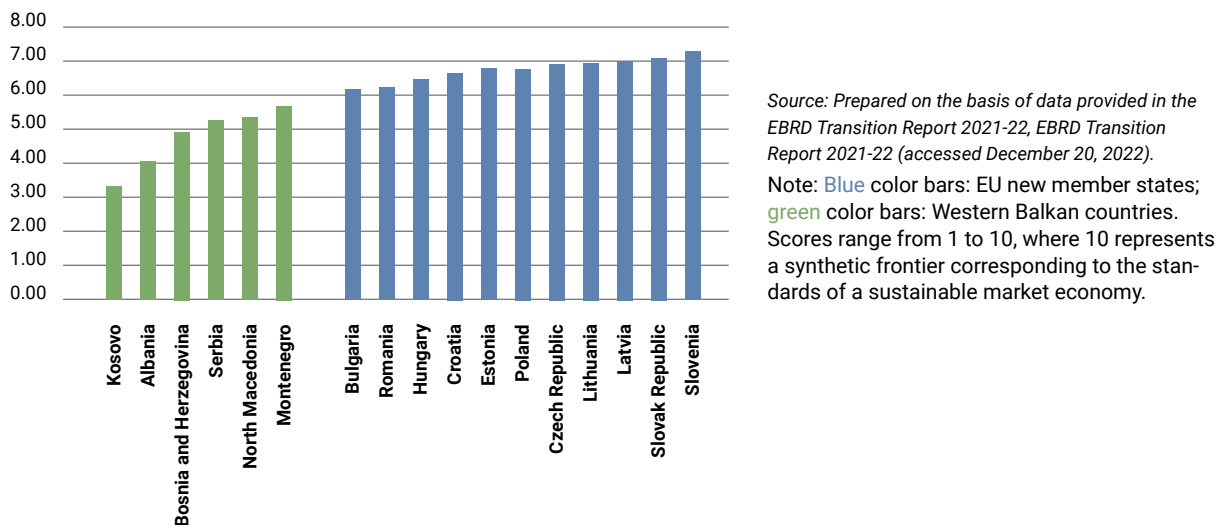
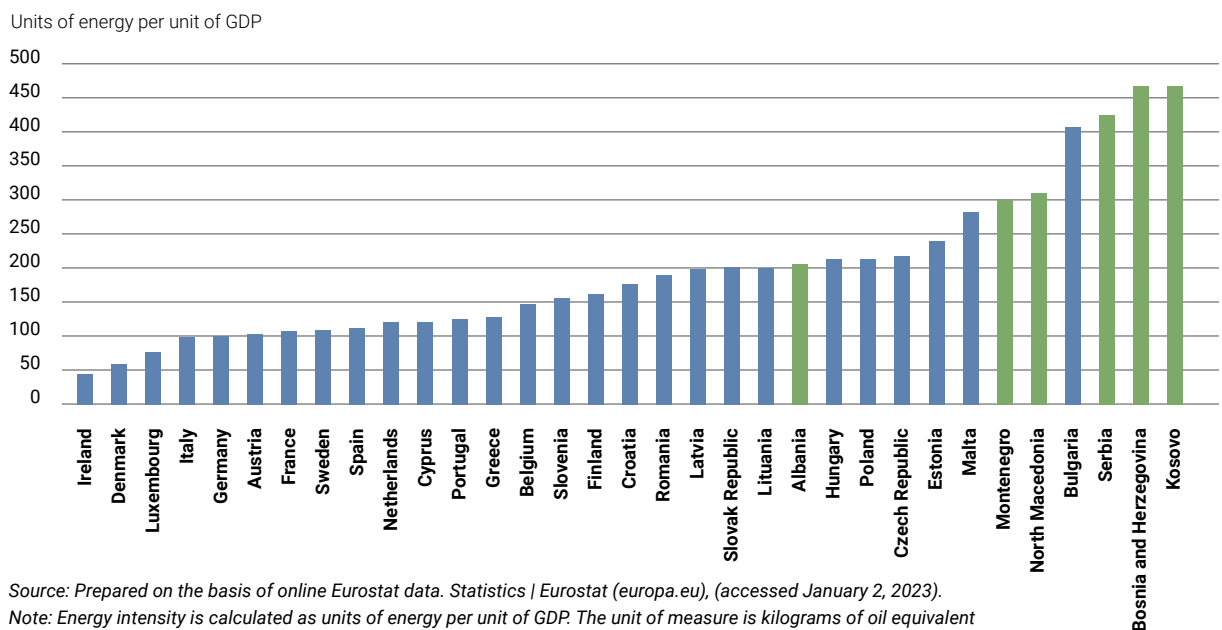


Figure 2: Energy Intensity of GDP in EU and Western Balkan Countries, 2020



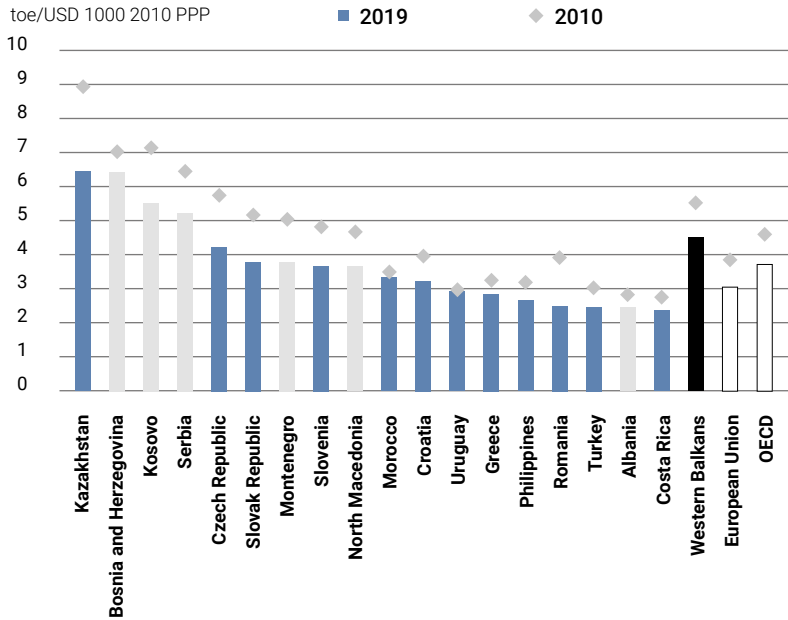
Regarding carbon dioxide emissions (in metric tons) per capita, only Bosnia and Herzegovina and Serbia had slightly higher emissions in 2019 than the average in the European Union, whereas Montenegro, North Macedonia, and especially Albania had among the lowest, reflecting lower levels of industrial activity per capita (Figure 4). World Bank data on the sectoral structure of carbon dioxide emissions shows that emissions in the Western Balkans are generated primarily in the electricity and heating sector, relatively more than in most EU member

states; the only exception is Albania, where the transport sector is mainly responsible for emissions.

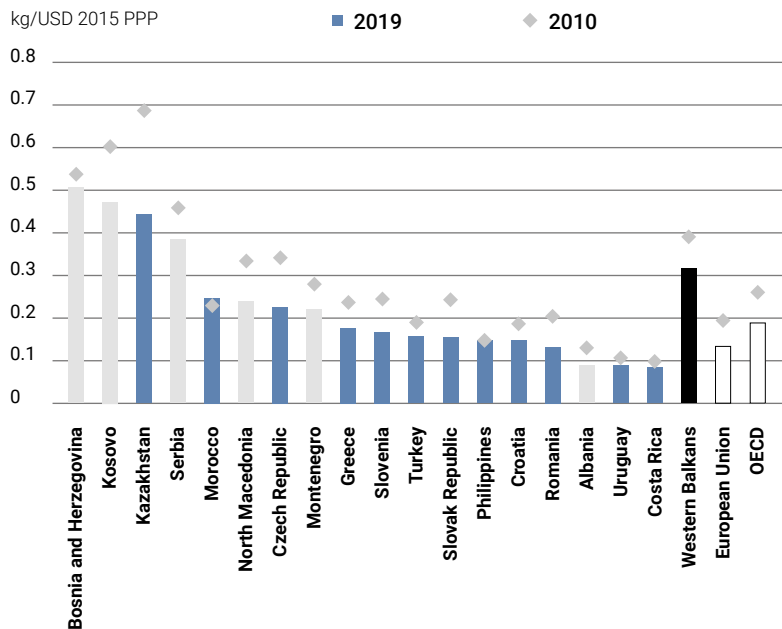
The dominant share of total energy supply in the Western Balkan countries is represented by coal, oil, and wood (Figure 5). More than half of energy supplies in Serbia, Bosnia and Herzegovina, and Kosovo are derived from coal, while the percentage is somewhat lower in North Macedonia. All Western Balkan countries except Albania rely on coal as their main energy source. Regarding the en-

Figure 3: Energy and Carbon Intensities of GDP

Panel A. Energy intensity of GDP (total energy supply per GDP [GJ/USD 1000 2015 PPP])

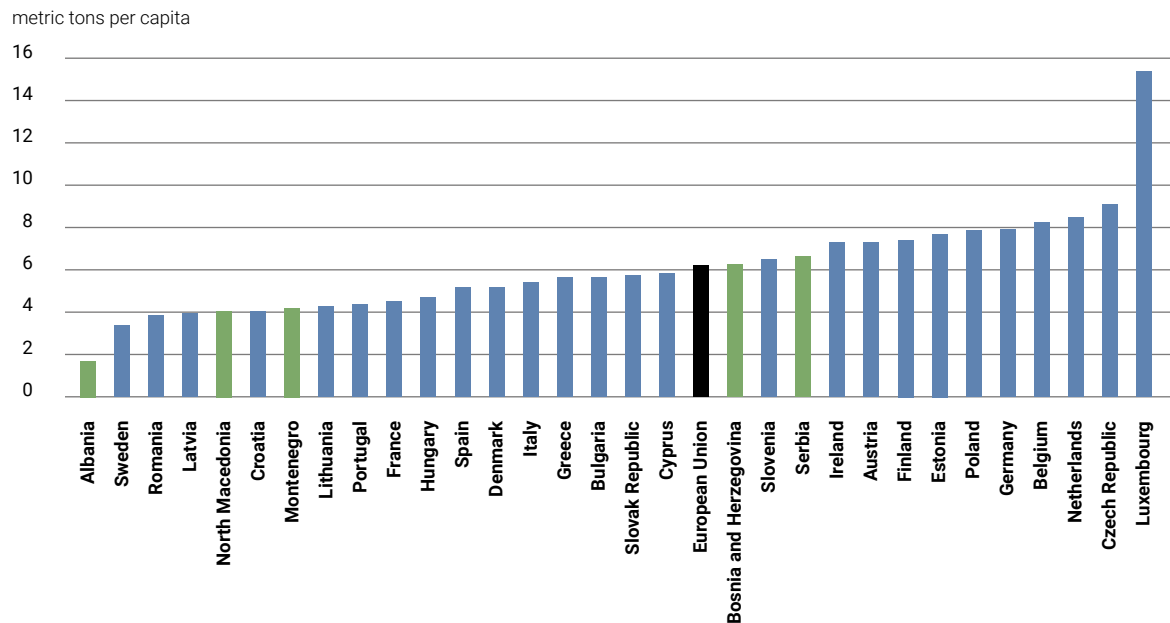


Panel B. Carbon intensity of GDP (CO2 emissions per unit of GDP [kg/USD 2015 PPP])



Source: Adapted from OECD, *Multi-dimensional Review of the Western Balkans. From Analysis to Action*, April 2022, 368, OECD Development Pathways, OECD Publishing, Paris, <https://doi.org/10.1787/8824c5db-en> (accessed December 20, 2022).

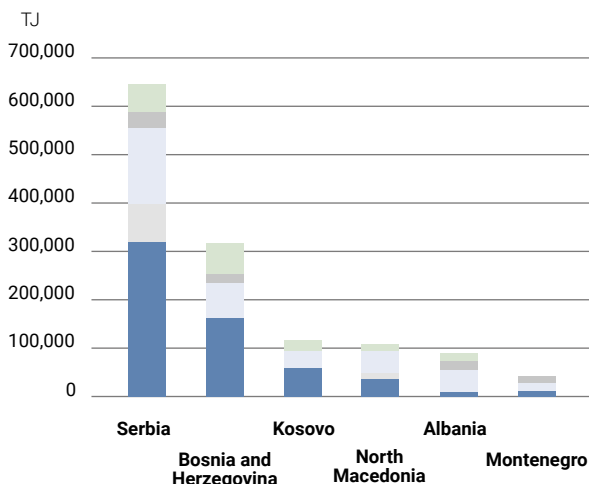
Figure 4: Carbon Dioxide Emissions (metric tons per capita), 2019



Source: World Bank, World Development Indicators. CO2 emissions (metric tons per capita) | Data (worldbank.org) (accessed January 3, 2023).

Note: Blue color bars: EU member states; green color bars: Western Balkan countries. No data is available for Kosovo. Carbon dioxide emissions are those stemming from the burning of fossil fuels and the manufacture of cement. They include carbon dioxide produced during consumption of solid, liquid, and gas fuels and gas flaring.

Figure 5: Sources of Energy Supply



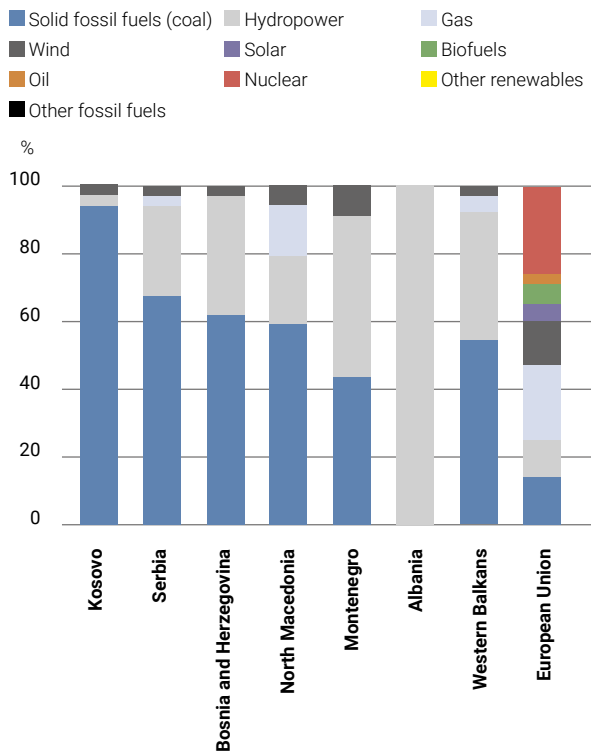
Source: Adapted from OECD, Multi-dimensional Review of the Western Balkans. From Analysis to Action, April 2022, 370, OECD Development Pathways, OECD Publishing, Paris, <https://doi.org/10.1787/8824c5db-en> (accessed December 20, 2022).

energy mix, fossil fuels still make up 83 percent of primary energy, compared to the EU's 70 percent average. The dominant sources are: coal and lignite (46 percent of total sources), used in power generation and heavy industry; oil (29%), mainly used in transport; and natural gas (8%). Wind and solar energy represent a negligible source of energy (Figure 5).

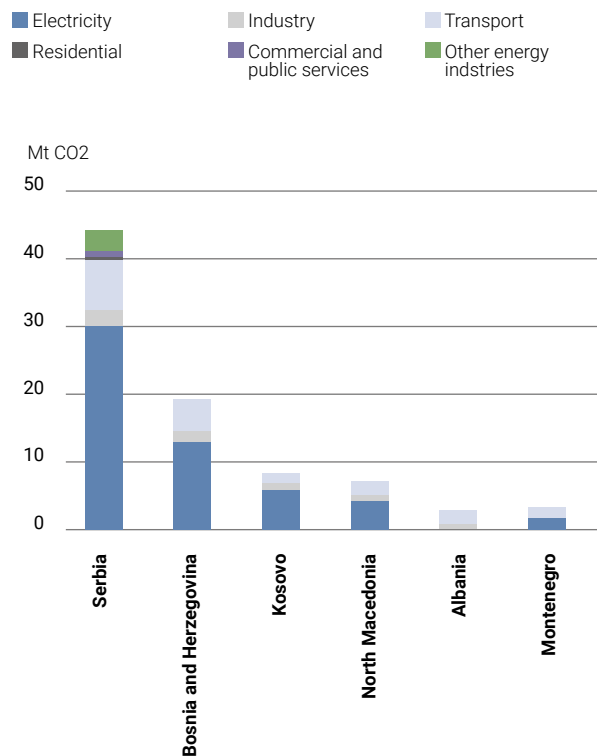
Regarding the average electricity generation mix in the Western Balkans, solid fossil fuels – primarily coal – were dominant in 2019, except in two countries that rely on hydropower: Albania, where electricity is produced almost entirely from hydropower, and Montenegro, where hydropower contributes as much electricity as solid fossil fuels (Figure 6, Panel A). The situation is very different than in the EU, where energy sources are more diversified and

Figure 6: Electricity Generation Mix (%) and CO2 Emissions by Sector (MtCO2), 2019

Panel A. Electricity generation mix (%), 2019



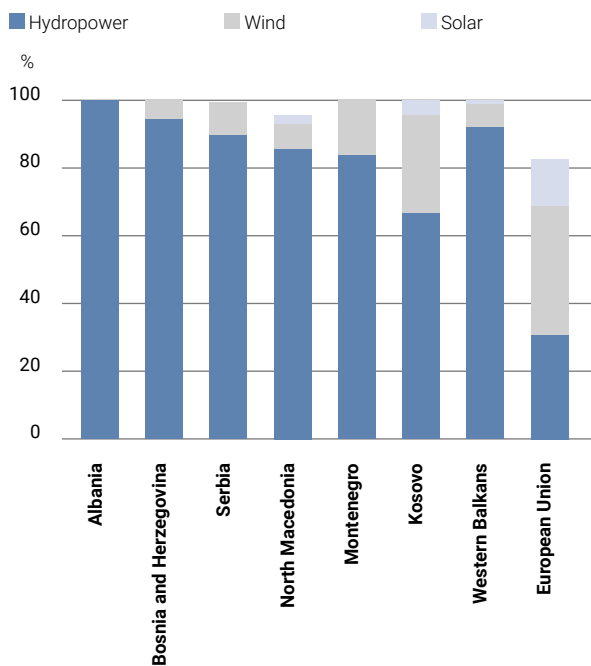
Panel B. CO2 emissions by sector (Mt CO2), 2019



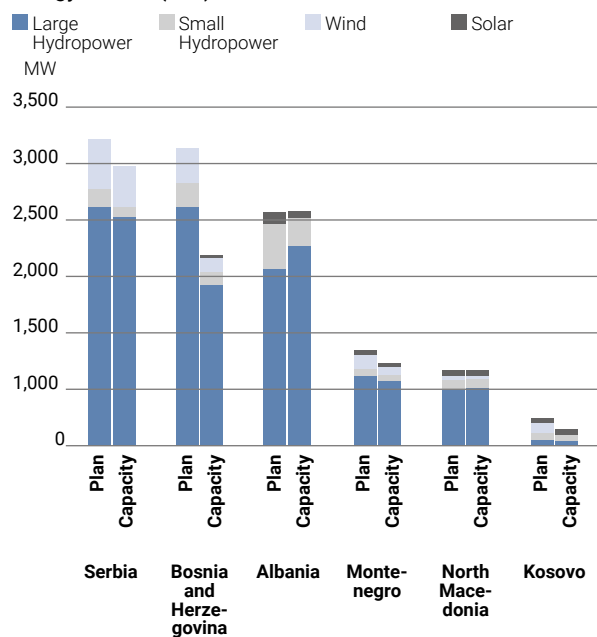
Source: Adapted from OECD, Multi-dimensional Review of the Western Balkans. From Analysis to Action, April 2022, 370, OECD Development Pathways, OECD Publishing, Paris, <https://doi.org/10.1787/8824c5db-en> (accessed December 20, 2022).

Figure 7: Renewable Energy Sources

Panel A. Renewable mix (%), 2019

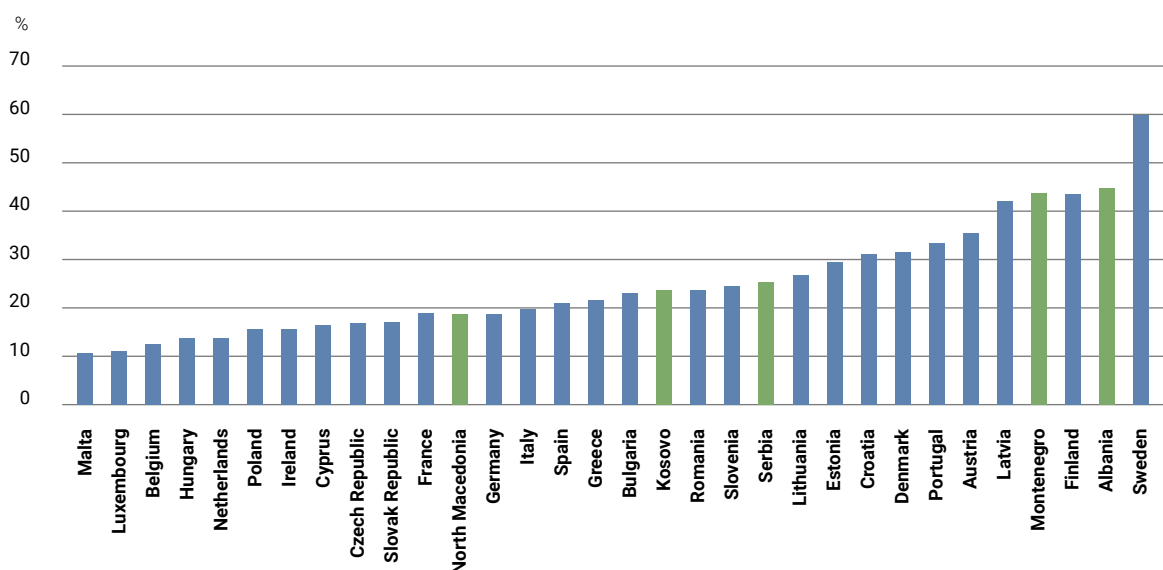


Panel B. Plans for 2020 and installed capacity of renewable energy in 2020 (MW)



Source: Adapted from OECD, Multi-dimensional Review of the Western Balkans. From Analysis to Action, April 2022, 375, OECD Development Pathways, OECD Publishing, Paris, <https://doi.org/10.1787/8824c5db-en> (accessed December 20, 2022).

Figure 8. Share of Energy from Renewable Sources in EU and Western Balkan Countries, 2020



Source: Prepared on the basis of online Eurostat data, Statistics | Eurostat (europa.eu) (accessed October 1, 2022).

Note: Blue color bars: EU member states; green color bars: Western Balkan countries.

solid fossil fuels represent a much lower percentage. The extensive use of coal for electricity generation is also one of the main drivers of pollution and CO₂ emissions (Figure 6, Panel B).

Renewable energy in all Western Balkan countries mainly consists of hydropower, while the use of wind and solar energy is negligible, their relative shares being much lower than in the EU (Figure 7). Most countries have recently offered incentives, primarily for small hydropower plants. As such, the number of such plants has more than quadrupled over the last decade, from 108 in 2009 to at least 488 in 2018.³ However, small hydropower plants have not contributed much to the desired objectives, since they accounted on average, in 2018, for only 5.4 percent of electricity generation in the Western Balkans (only in Albania is their contribution 16%).⁴ Moreover, small hydropower plants have often had a very negative impact on the environment and local communities, as they tend to reduce river flows and fish populations and contribute to drying riverbeds and reduced water availability. The available evidence suggests that

the Western Balkans have failed to base incentive schemes on rigorous environmental standards, undertaking investments without proper environmental impact assessments.

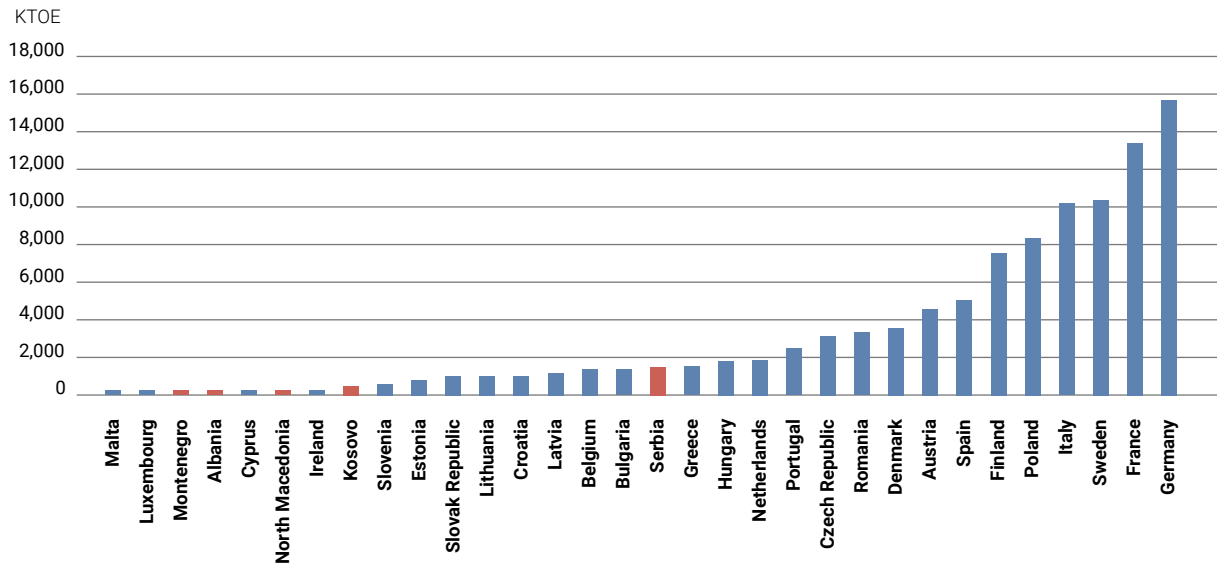
The share of energy from renewable sources is very high in Albania and Montenegro, primarily due to their strong reliance on hydropower (Figure 8). On average, renewable energy in the Western Balkans made up 18.2 percent of all energy consumed in 2019, which is higher than the EU average (10.2%). However, the high percentages of renewables are due to the strong reliance on biofuels and waste, since 60 percent of renewable energy supplies are sourced from biofuels, mainly wood, which is used for heating and cooking. This is a renewable that is recognized to be a major pollutant. Plans for expanding renewables are considered not to be ambitious enough, especially regarding wind and solar energy.

Energy efficiency in the Western Balkans is generally low, especially in residential and commercial buildings. Western Balkan households account for

³ CEE Bankwatch Network (2019), Western Balkans Hydropower – Who Pays, Who Profits?, CEE Bankwatch Network, Prague, <https://bankwatch.org/wp-content/uploads/2019/09/who-pays-who-profits.pdf> (accessed January 13, 2023).

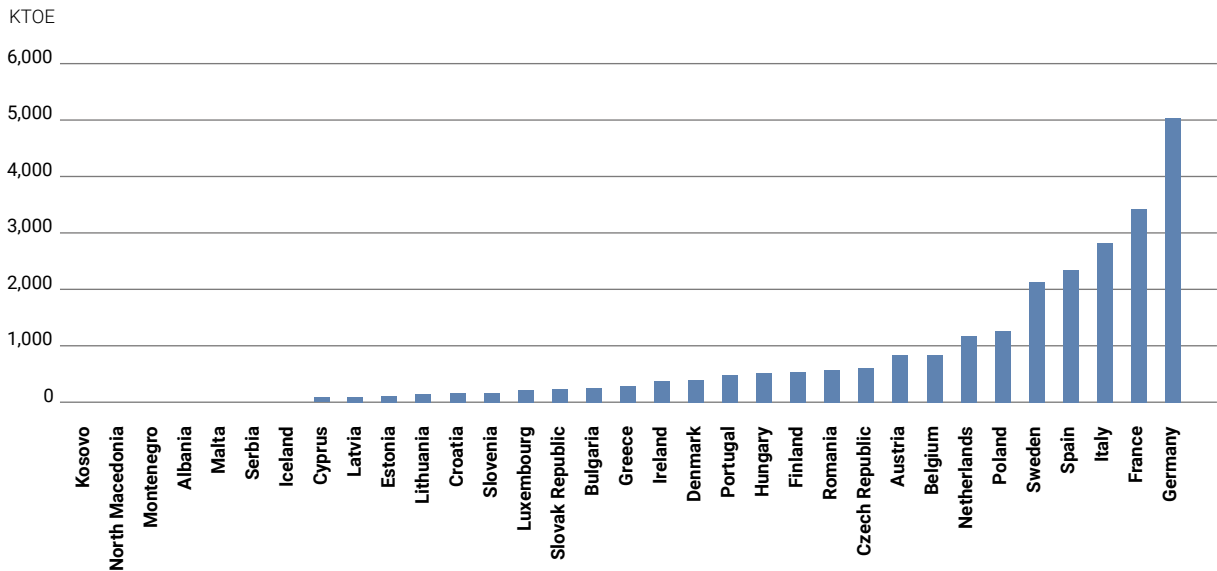
⁴ OECD, Multi-dimensional Review of the Western Balkans. From Analysis to Action, April 2022, 376, OECD Development Pathways, OECD Publishing, Paris, <https://doi.org/10.1787/8824c5db-en> (accessed December 20, 2022).

Figure 9. Use of Renewables for Heating and Cooling, 2020



Source: Prepared on the basis of online Eurostat data, Statistics | Eurostat (europa.eu) (accessed October 1, 2022).
 Note: Unit of measure: Thousand tonnes of oil equivalent [KTOE].

Figure 10. Use of Renewables for Transport, 2020



Source: Prepared on the basis of online Eurostat data, Statistics | Eurostat (europa.eu) (accessed October 1, 2022).
 Note: Unit of measure: Thousand tonnes of oil equivalent [KTOE].

32.4 percent of the region's total energy consumption, in comparison to 27 percent in the EU.⁵ Buildings are often heated with inefficient stoves and boilers that use wood, lignite, coal, and other solid fuels, such as waste, and this has a severe impact on pollution. The use of renewables for heating and cooling is extremely low in all the Western Balkan countries, in comparison to those EU member states where their use is highest, Italy, Sweden, France, and Germany (Figure 9).

Household electricity prices are lower in the Western Balkans than in the EU, but electricity in these countries is relatively more expensive considering the lower incomes. Raising electricity prices is a delicate social and political issue. Government subsidies continue to be extended in various forms to dominant state-owned enterprises, mainly for generating electricity from coal.⁶

Renewable sources are almost non-existent in the transport sector of the Western Balkans. Five countries – Kosovo, North Macedonia, Montenegro, Albania, and Serbia – are among the very last of all countries covered by Eurostat statistics on the use of renewables in transport; data for Bosnia and Herzegovina is not available (Figure 10). EU member states that have more experience in using renewables for transport, including Sweden, Spain, Italy, France, and Germany, could offer practical advice on how transport systems might be modernized in line with the green transition.

The predominant use of coal in most Western Balkan countries, coupled with low energy efficiency, have a negative impact on the environment, pollution, and climate change. There is abundant evidence that the levels of pollution in the Western Balkans are alarming. Some of the Western Balkan capitals have been frequently ranked as the most

polluted cities in Europe in recent years. The Western Balkans is a region marked with excessive air pollution caused by various sources of pollutants such as thermal power stations, heating plants, industrial facilities running on fossil fuels, oil processing facilities, transportation, and household heating appliances, as well as inappropriate landfills.⁷ Countries often do not comply with pollution limits, as confirmed by a number of recent disputes with the Energy Community due to the disregard of pollution limits set out in National Emission Reduction Plans.

Air pollution has a very serious impact on the health of Western Balkan populations. The years of life lost per 100,000 inhabitants that are attributable to exposure to pollution are almost twice the EU average. The situation is particularly alarming in Kosovo, Serbia, Albania, and North Macedonia (Figure 11).

Current Challenges

The multiple, interrelated, and complex tasks laid out by the Green Agenda in the Western Balkans require simultaneous action in different areas that will not be simple to carry forward. Some of the main challenges regarding the implementation of the Green Agenda are:

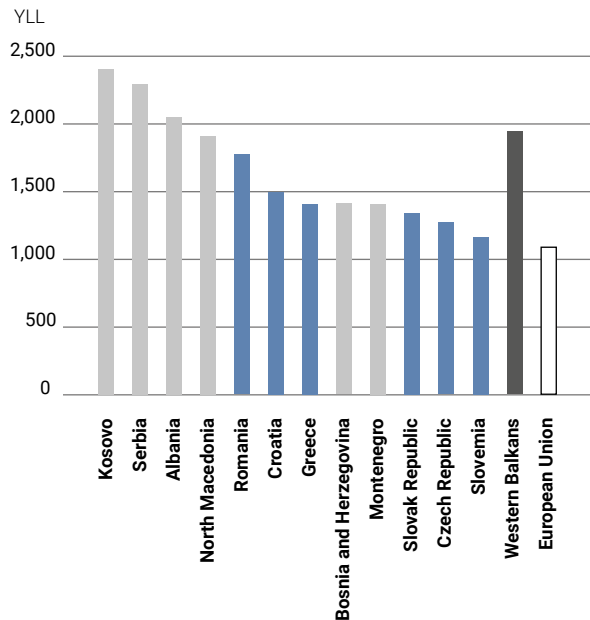
- **Governance:** The implementation of the Green Agenda could be severely constrained by weak governance capacities of Western Balkan public administrations, which might not be able to prepare mature projects and conduct a proper evaluation of their environmental impact, especially at the sub-national level within local municipalities. The public administrations in the Western Balkans may have limited human resources qualified for specific issues related to energy, climate and the environment,

5 OECD, Multi-dimensional Review of the Western Balkans. From Analysis to Action, April 2022, 372, OECD Development Pathways, OECD Publishing, Paris, <https://doi.org/10.1787/8824c5db-en> (accessed December 20, 2022).

6 For a detailed account see Damir Miljević, Investments into the Past. An Analysis of Direct Subsidies to Coal and Lignite Electricity Production in the Energy Community Contracting Parties 2018-2019, Report for the Energy Community Secretariat, December 2020, http://energy-community.org/dam/jcr:482f1098-0853-422b-be93-2ba7cf222453/Miljevi%C4%87_Coal_Report_122020.pdf (accessed December 20, 2022).

7 See European Fund for the Balkans, Balkans United for Clean Air, Background Knowledge, 2021, https://www.balkanfund.org/pubs/uploads/Collection_of_briefs_final.pdf (accessed December 20, 2022); Regional Cooperation Council, Study on Climate Change in the Western Balkan Region, Sarajevo: RCC, 2018, RCC Study on Climate Change in the Western Balkans Region, 2018 (accessed December 20, 2022).

Figure 11. Years of Life Lost per 100,000 Inhabitants Attributable to Exposure to Pollution in 2016



Source: European Environment Agency, *Air Quality in Europe: 2020 Report*, as reported in OECD, *Multi-dimensional Review of the Western Balkans. From Analysis to Action*, April 2022, 367, OECD Development Pathways, OECD Publishing, Paris, <https://doi.org/10.1787/8824c5db-en> (accessed December 20, 2022).

specialists that can prepare green projects, work in the regulatory agencies, or environmental inspectorates. Projects financed through the Western Balkan Investment Framework (WBIF) will be carefully evaluated for their environmental impact, but even if a project is assessed as being in line with environmental norms, the capacity of local institutions to monitor the project's implementation may be poor. A recent study commissioned by the European Parliament strongly recommends active and early consultations with local authorities and civil society organizations in the preparation of projects, as envisaged by the Instrument for Pre-Accession Assistance (IPA) III methodology regulations adopted in September 2021, since the experience so far has not been satisfactory.⁸ This is particularly the case with the four EIP flagship projects that address the Green Agenda, since they have not ensured the

active participation of civil society organizations and local municipalities. Civil society organizations are more aware of local problems and are often more knowledgeable about specific issues that concern citizens' every-day lives, such as pollution, household energy consumption, quality food, and urban planning. They are also in a better position to monitor key issues regarding the environmental or social impacts of flagship projects.

- **Financial Constraints:** In order to reach the objectives set out by the Green Agenda, large investments are needed in various areas. The EU financial package offered through the EIP may not be sufficient to reach the ultimate objective of accelerating the region's economic growth and convergence towards the EU. The proposed nine billion EUR make up only 0.45 percent of the EU budget allocated for the next

⁸ Will Bartlett, Matteo Bonomi, Milica Uvalic, *The Economic and Investment Plan for the Western Balkans: Assessing the Possible Economic, Social and Environmental Impact of the Proposed Flagship Projects*, European Parliament, Directorate General for External Policies, June 2022, [https://www.europarl.europa.eu/thinktank/en/document/EXPO_STU\(2022\)702561](https://www.europarl.europa.eu/thinktank/en/document/EXPO_STU(2022)702561) (accessed December 3, 2022).

seven years in the Multiannual Financial Framework and the Next Generation EU Recovery Plan. This is extremely low in comparison to what individual EU member states in Southeast Europe will receive during the same period.⁹ There is no assurance that Western Balkan governments will be able to co-finance costly projects, since their public budgets are limited. There is a risk of further divergence in the levels of economic development between the Western Balkan countries and EU member states, rather than convergence.

- **Conflicting Objectives:** The Western Balkans' Green Agenda requires an enormous effort to carry forward multiple and interrelated objectives. Parallel policies are needed in different areas, that are sometimes not clearly prioritized. The various EU policy documents, such as the Commission's Country Reports, the Common Regional Market initiative, the Economic and Investment Plan, and IPA III regulations, do not provide clear indications about the key priorities in the short-, medium-, and long-term. Moreover, some of these measures aimed to assist the Western Balkan development efforts may not be mutually consistent, posing difficulties in their implementation. The discrepancy between the objectives set by the Green Agenda and the instruments of their implementation can be illustrated through the EIP flagship projects. Most projects on renewable energy (Flagship 4) initially proposed for financing are related to hydropower plants, which often do not take into account the environmental damage they cause. Only one project was proposed on wind and solar energy, despite this being the region's great untapped potential. Some additional projects on photovoltaic power plants were endorsed only in February 2022. It is also surprising that four out of five projects proposed under Flagship 5 (transition from coal) are gas pipelines, failing to recognise the urgency of the transition from fossil fuels to alternative forms of clean energy. A critical question emerges: where should the money for such gas projects come from, considering that the European Investment Bank's new policy excludes investment in gas pipelines and fossil fuels? For the renovation wave (Flagship 6), which requires the decarbonisation of public and private buildings, only one project has been endorsed so far. Flagship 7, on environmental and climate, proposes, for now, projects that focus exclusively on waste and wastewater management, not taking into account other causes of environmental and water pollution (e.g. inadequate waste disposal systems, or inappropriate systems for monitoring air and water quality).
- **Industrial Policies:** Western Balkan governments ought to reconsider their industrial policies in order to adapt them to the new objectives set out by the Green Agenda. A more comprehensive industrial policy is necessary that would include incentives to stimulate the green transition among enterprises and banks. Incentives and technical support need to be offered to enterprises to move toward greater use of renewable resources, adopt more appropriate environmental norms, and engage in training and the development of skills in the workforce. Similarly, banking staff need technical training on the environmental impact of projects, in order to be able to apply appropriate selection criteria when extending new loans to firms. In order to sustain the green transition in the Western Balkans, an environmental impact assessment of all new projects undertaken by domestic and foreign investors must become obligatory.
- **Regional Cooperation:** There are a number of benefits that can be expected from the regional integration of energy markets. These include a reduction in the volatility of electricity prices, which would benefit consumers and allow for higher political acceptance of less regulated electricity markets. Further integration could also improve network connections and reduce

9 W. Barlett et al., 2022.

losses, while making better use of existing capacities between several countries. This, in turn, could lead to an increase in electricity trade and reduce the potential market power of generators, leading to greater supply reliability.¹⁰ There are also serious obstacles that prevent the effective regional integration of electricity markets, including the reluctance of governments to share control over a politically sensitive sector, and opposition from entrenched groups interested in maintaining the status quo. However, in view of the current energy crisis caused by the ongoing war in Ukraine, the benefits of a more integrated energy market seem to far outweigh the costs. Given that the Western Balkan countries share regional energy infrastructure, there is a high level of interdependence within the region. For the small and underdeveloped Western Balkan economies, regional economic cooperation, also in the energy sector, could be an answer to some of the pressing challenges.

- **Raising Awareness:** It is fundamental to raise awareness about the importance of climate, energy, and the environment – both among the population and at the policy level. The Western Balkans are going through a dual transition, from fossil fuels to renewables, and from state-subsidized electricity to less regulated prices. These tasks could easily hamper the green transition. Energy has for decades been considered a public good, provided below cost thanks to subsidies to often inefficient state-owned enterprises. Decarbonization will require the elimination of state subsidies to polluting industries, along with a significant reallocation between activities, sectors, firms, workers, and technologies.¹¹ Due to the high costs of transitional measures, citizens and lo-

cal communities will need substantial support to overcome the economic and social costs of the green transition. The population will not be eager to implement the proposed measures without public campaigns, more information about the polluting effects of current heating systems, and concrete incentives.¹² These measures will need to be properly designed and implemented by the local authorities, in line with the objectives of a “just” transition.

10 See more in Milica Uvalic, *Regional Cooperation in the Western Balkans: The Eight Regional Energy Market in Europe*, in: Carlo Cambini and Alessandro Rubino, ed, *Regional Energy Initiatives: MedReg and the Energy Community*, London and New York: Routledge, 2014, 101-118.

11 See Simone Tagliapietra, Guntram B. Wolff, and Georg Zachmann, *Introduction and Overview: Greening Europe’s Post-Covid-19 Recovery*, in: *Greening Europe’s Post-Covid-19 Recovery*, Bruegel Blueprint Series 32, Brussels: Bruegel, 2022, 12–19, https://www.bruegel.org/sites/default/files/wp_attachments/Bruegel_Blueprint_32_230222.pdf (accessed February 9, 2023).

12 According to a recent survey in the Western Balkan countries, 45 – 68 percent of surveyed individuals would not be willing to replace the current heating system used in their households; see RES Foundation, *Energy Poverty – Heating Devices and Systems. Comparative Data for the Public Opinion Poll Conducted in Serbia, Montenegro, Albania, North Macedonia and Kosovo*, Belgrade: RES Foundation, December 2021, *Energy poverty – RES Foundation* (accessed January 3, 2023).

Energy Transition and Energy Security – Can We Have Both?

Jovan Rajić · RERI – Renewables and Environmental Regulatory Institute

When Russia invaded Ukraine earlier this year, countries falling behind in their decarbonization plans found themselves asking the same question: Would the war impact their obligations? More precisely, would this unfortunate turn of events buy them more time before they had to comply with the standards imposed by the EU and introduced with the “Green Agenda for the Western Balkans”¹ in 2020?

Amid speculation that thermal power plants might make a surprising comeback into the energy mix,² even countries firmly committed to the energy transition are wondering whether tolerance levels will be adjusted, and whether it is truly possible to prioritize energy transition over energy security in such unpredictable circumstances.

Prior to answering this, several aspects require a closer look.

Geopolitical Uncertainty

The outcome of the current situation in Ukraine is still unforeseeable. Nobody can predict how long the conflict will continue, or the consequences it will have on the global energy structure – not to mention on humanity as a whole.

In light of this, it would be presumptuous to claim to know how the energy policies of the Western Balkans (WB) will develop. Although it is impossible to know their ability to individually and collectively overcome anticipated obstacles, this cannot justify the lack of a basic strategy altogether.

Any kind of well-organized system has short- and long-term strategies as well as contingency plans for crisis management – a “battle plan,” so to say. This allows it to adjust policies to changing circumstances. Meanwhile, less prepared systems are left with the fallout, struggling to adapt to change with ad-hoc decisions instead of shaping change to their advantage.

Uncoordinated Regional Response

Within the European Union (EU), the Western Balkans have achieved varying degrees of accession and integration and display a range of differing strategic and geopolitical orientations. This leaves countries such as Serbia, Montenegro, and North Macedonia unable to assume a cohesive, let alone coordinated, stance. In times of crisis, this is a crucial shortcoming. It may be said, therefore, that politics have once again obstructed the practical needs and wellbeing of its citizens.

The Republic of Serbia poses a striking example of this for two main reasons. Firstly, it is heavily dependent upon Russian energy, which comprised about 90 percent of the country’s total gas supplies before Russia’s war in Ukraine. Secondly, and directly related to this, Serbia was one of the very few countries that did not impose sanctions on Russia after the invasion. In doing so, it failed to comply with EU policy on the matter.

Serbia missed numerous opportunities to diversify its energy mix before the war. This demonstrates not only a fundamental short-sightedness, but also a lack of vision for the nation’s energy strategy. It was a mistake for Serbia to reject a share in the Liq-

1 Regional Cooperation Council, Sofia Declaration on the Green Agenda for the Western Balkans, November 2020, <https://www.pregovarackagrupa27.gov.rs/wp-content/uploads/2021/06/Deklaracija-iz-Sofije-o-Zelenoj-agendi-za-Zapadni-Balkan-ENG.pdf> (accessed October 3, 2022).

2 Juby Babu and Maria Shibu, Germany’s Uniper to Restart Coal-fired Power Plants as Gazprom Halts Supply to Europe, Reuters, August 2022, <https://www.reuters.com/business/energy/germanys-uniper-bring-coal-fired-power-plant-heyden-4-back-onto-electricity-2022-08-22/> (accessed October 3, 2022).

uefied Natural Gas (LNG) terminal off the port of Alexandroupoulos, Greece. It has since become one of the main energy hubs for the Western Balkans.

To justify this, the Ministry of Energy offered heating oil as a gas alternative – as if Belgrade was not already one of Europe’s most heavily polluted capitals. Meanwhile, cities such as Bor, Zaječar, Valjevo, and Smederevo are quite literally choking in the face of insufficient political will to address even residents’ most basic issues. This comes in addition to the impracticality of securing, transporting, and producing the quantities of fuel Serbia would need in lieu of gas. This option remains unfeasible and is only brought up to create a false sense that Serbia possesses many viable solutions and has not been late to act.

Belated Energy Transition

By signing the Sofia Declaration on the Green Agenda for the Western Balkans, Serbia pledged to work alongside other WB states and the EU to make the continent carbon neutral by 2050. However, this (deliberately) left executive representatives misaligned in their communication.

Serbia’s President had seized every opportunity to foster the coal sector for populist purposes, as the mining industry employs thousands of people. This has led to such claims as that there are enough reserves in the Kolubara basin for the next 60 years, or until 2080.³

Meanwhile, the Ministry of Construction has recently advanced thermal power plants with the total capacity of three gigawatts in a draft Spatial Plan.⁴ At the same time, (now) former Minister of Energy Zorana Mihajlović stood firmly in saying that the Green Agenda remained Serbia’s strategic focus and commitment, even under the circumstances caused by the war in Ukraine.⁵

This “good cop/bad cop” dynamic between populist and hypocritical concerns for people in the coal industry on the one hand, and necessary energy sector reforms on the other has only delayed measures that will eventually become inevitable.

There is one important lesson to be learnt from the countries which have already made great headway in their energy transition: it is a process. This process requires time as well as reforms in a nation’s educational system, legal framework, social and economic policies, technical and industrial innovations, and more. In short, a reset of the entire system is needed.

There are two ways to respond to this. One is to take a realistic approach and redefine economic and social schemes accordingly. The alternative is to wait until 2050 and see what happens, hoping that geopolitical realities will postpone the deadline or create new priorities.

One thing is for sure: it is already late. It can only be hoped that it is not too late.

State Collaboration with Heavy Industry

Serbia’s government is exceptionally lenient toward investors in heavy industries such as steel and mining as well as their consistent failure to comply with domestic laws and regulations.

Often, facilities are run without the proper permits in construction and operations. They do not conform with the EU pollution guidelines codified in the Integrated Pollution Prevention and Control (IPPC) and eschew meeting environmental conditions such as conducting an Environmental Impact Assessment (EIA). Yet the overseeing authorities remain silent, tacitly supporting illegal behavior by failing to impose sanctions and induce compliance with the appropriate regulations.

3 Vučić Danas: The New Excavation in Kolubara Provides Coal for the Next 60 Years, Danas, May 2020, <https://www.danas.rs/vesti/politika/vucic-novi-otkop-u-kolubari-obezbedjuje-ugalj-za-narednih-60-godina/> (accessed October 3, 2022).

4 Ministry of Construction, Transportation and Infrastructure, Spatial Plan of the Republic of Serbia for the Period 2021-2035, March 2021, http://jablanicki.okrug.gov.rs/dokumenti_skidanje/prostorni_plan/PPRS_Nacrt_12.03.2021.pdf (accessed October 3, 2022).

5 Zorana Z. Mihajlović, No Giving up on the Green Agenda, Balkan Green Energy News, July 2002, <https://balkangreenenergynews.com/no-giving-up-on-the-green-agenda/> (accessed October 3, 2022).

With this, the government clearly places the economy before ecological standards and the rule of law. Therefore, it may be concluded that compliance with applicable laws depends on an operator's corporate culture and willingness to adjust operations to the given legal framework. There is little chance that the state and competent institutions will force them to do so.

Similar behavioral patterns may be observed in the relationship between the government and public companies operating in the energy sector. Requests and demands made by non-governmental organizations as well as economic and energy experts seeking to improve compliance are often seen as a hostility intended to cause instability and inflate costs by unnecessarily requiring energy to be imported.⁶

In sum, the government and pro-government media are spinning a narrative in which foreign investment, jobs, and energy security are being protected, whereas any calls for compliance with commitments made by the very same government are considered an act of destabilization.

The Social Price of Electricity

In 2020, the public power utility company Elektroprivreda Srbije (EPS) announced a list of the country's 20 greatest debtors.⁷ These are those most behind on their energy bills: Chinese steelmaker HBIS operating in Smederevo topped the list with 4.6 billion RSD of debt (about 39 million EUR), followed by Resavica Mining with 2.6 billion RSD and Energetika Kragujevac with 1.7 billion RSD. Serbia Zijin Bor Copper was also on the list with 870 million RSD debt, as well as the public utility company Toplana Bor with 785 million RSD.⁸

This confirms the relationship between the state and companies investing in “dirty” industries and operating in fossil energy.

In terms of setting the price of energy, we can once again observe populism and a “good cop/bad cop” dynamic played out by authorities.

The price of electricity was never set nearly according to commercial and economic criteria, but is dictated by political and social needs. Energy poverty in the Western Balkans has always played a defining role in decision-making processes.

It is, therefore, a social and not an economic issue, as President Aleksandar Vučić has confirmed on multiple occasions.⁹ Hence, the price of electricity remains unrealistically low and distorts projections for the entire electricity market in terms of needs, consumption, production, or prices. Ultimately, by misrepresenting future predictions, the entire energy transition process is jeopardized. Fuel retail prices are out of control, despite a formal limit being in place, and remain highest in the region, contrary to the government and pro-government media professing otherwise.¹⁰

This clearly shows that the state does not have the proper market mechanisms and strategies in place to limit pricing ranges and accumulated debt. This has fostered legal and commercial uncertainty and demonstrates a systemic lack of discipline in fulfilling commitments.

This also underlines how impossible it is to foresee how the market will react in the unpredictable aftermath of the war in Ukraine.

6 Blic (online), “We Will Shut Down Thermal Power Plants When Poland Shuts Down Theirs” Vučić: I Will Not Allow us to Import Electricity, August 11, 2021, <https://www.blic.rs/biznis/vesti/gasicemo-termoelektrane-kada-poljska-ugasi-svoje-vucic-necu-dozvolti-da-uvozimo/z2rkvj0> (accessed October 3, 2022).

7 FoNet, Biggest Debtors for Electricity Zelezara Resavica, Energetika, Infostan, Zidin..., FoNet, July 27, 2020, <https://rs.n1info.com/biznis/a623810-najveci-duznici-za-struju/> (accessed October 3, 2022).

8 DANAS (online), EPS: State Enterprises on the List of the Largest Debtors of Electricity Bills, July 27, 2020, <https://www.danas.rs/vesti/ekonomija/eps-drzavna-preduzeca-na-listi-najvecih-duznika-racuna-za-struju/> (accessed October 3, 2022).

9 021.rs., Vučić: The Price of Electricity Will not Increase, I Feel Like Jumping out of the Window Because of Nedimovic's Statements, 021.rs, May 15, 2022, <https://www.021.rs/story/Inf/Srbija/305664/Vucic-Struja-nece-poskupeti-dodje-mi-da-skocim-kroz-prozor-zbog-izjava-Nedimovica.html> (accessed October 3, 2022).

10 021.rs., Serbia Became the Record Holder for the Price of Gasoline in the Region, January 13, 2022, <https://www.021.rs/story/Info/Biznis-i-ekonomija/317861/Srbija-postala-rekorder-po-ceni-benzina-u-regionu.html> (accessed October 3, 2022).

Untransparent Decision-making Processes

The last, but certainly not least, crucial problem lies in authorities' perception of public participation in decision-making. It is often considered a burden or formal obligation – to be fulfilled without any unnecessary addenda – instead of a potentially useful contribution that could help improve solutions to the benefit of the public.

When deciding on energy alternatives, it is fair to say that the interested public is kept in the dark, as they are left out of discussions on diversification and alternative solutions. This is a legacy neither of the past ten years nor of the current ruling party, but a long-established practice. Perhaps the most notable example of this took place in 2008, when a significant portion of the Serbian energy sector was de-facto handed over to Russia's Gazprom for just 400 million EUR. This sale was later criticized by many experts as one of the worst commercial decisions ever made, not only from an economic, but also from a political perspective.

Moreover, citizens are not included in the process of developing key documents such as Serbia's Nationally Determined Contribution (NDC), National Emission Reduction Plan (NERP), or energy strategy. The interested public was either excluded or avoided as much as possible, depending on the particular occasion. In more than one instance, the competent authorities displayed questionable behavior such as being slow to announce public hearings, failing to address capacity problems for the public hearing rooms, and ignoring comments provided by the interested public.

All this lead to the adoption of documents and strategies which are neither realistic nor able to address practical issues. Instead, decision-makers treat them as non-binding papers which do not require strict compliance.

Conclusions

It may be concluded that populism remains the greatest hurdle facing the energy transition of the region. As electricity remains a social category, it is still not possible to ignore global trends and the need for diversification and regional cooperation alike. Therefore, a coordinated regional approach should focus on pragmatism over politicking.

Moreover, trade-offs between energy security and the energy transition cannot be accepted. Long-term strategies should be modified in response to geostrategic developments, particularly regarding the situation in Ukraine.

The energy transition strategy has to be coordinated and multidisciplinary, involving social, legal, economic, technical, and educational considerations. Sources for a comprehensive and just transition should be found in combined actions of the national budgets and the EU funds, while certain parts of the transition would be regulated by the market itself.

Finally, CSOs and Think Tanks should be considered as the resource by the governments of the region and not the burden trying to disturb imaginary economic and social growth. Discussions defining a nation's future energy strategy must be transparent and enable functional and meaningful public participation.

Agricultural Sustainability and Food Security in the Western Balkans – Evidence from North Macedonia

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The agricultural and food sector is one of the most significant in North Macedonia's economy. It contributes 9.1 percent of the Gross Domestic Product (GDP), with an average Gross Value Added (GVA) of 827 million EUR between 2011 and 2020.¹ In 2020, with a value of 916.5 million EUR, the share of North Macedonia's agricultural GVA in the country's GVA came to 9.8 percent.² Looking to the other countries of the Western Balkans (WB),³ Albania has the highest share of agricultural GVA in the country's GVA (22.0% in 2020), followed by Montenegro (9.1%), and Kosovo*⁴ (8.9%) (Table 1). However, over the past decade, this GVA share has been steadily decreasing in most of the WB countries.

North Macedonia is a net importer of agri-food products. Although overall trade is increasing, imports are still growing at a higher rate than exports, widening the agri-food trade deficit. Between 2011 and 2020, average agri-food exports came to 534 million EUR or 11.9 percent of total exports, while agri-food imports grossed at 745 million EUR or 11.5 percent of total imports.⁵ North Macedonia's key exports are tobacco, lamb meat, fruits, vegetables, and wine; their main destinations are the Western Balkans and the European Union (EU). The country's principal imports are meat and meat products, confectionary, cheese, processed foods, and grains.

Table 1: GVA and Employment in Agriculture, Forestry and Fishery in WB Countries

Gross value added (GVA) from agriculture, forestry and fishery in total GVA (%)						
Year	AL	BH	KS	MN	MK	RS
2010	20.7	8.0	11.5	9.2	11.7	7.9
2020	22.0	7.0	8.9	9.1	9.8	7.6
Share of agriculture, forestry and fishery in total employment (%)						
Year	AL	BH	KS	MN	MK	RS
2010	45.4	20.6	4.6	5.5	18.7	22.3
2020	36.1	12.0	4.8	7.5	12.0	14.6

Source: EUROSTAT, Online Data Code: *lfsa_egan2* and *nama_10_a10*, <https://ec.europa.eu/eurostat/web/health/health-care/data/database> (accessed December 16, 2022).

The sector is also significant in terms of workforce engagement, with 12.0 percent of all employees in North Macedonia engaged in agriculture in 2020 – down from 19.1 percent in 2010 (Table 1). This share is comparable to Serbia and Bosnia and Herzegovina, but considerably lower than, say, Albania, where agriculture employs 36.1 percent of the employed – down from 45.4 percent in 2010. However, the proportion of active population formally engaged in North Macedonia's agriculture is

1 State Statistical Office of the Republic of North Macedonia MakStat Database, SSO, Skopje, 2022, <http://makstat.stat.gov.mk/PXWeb/pxweb/en/MakStat> (accessed December 16, 2022).

2 EUROSTAT, Online Data Code: *nama_10_a10*, <https://ec.europa.eu/eurostat/web/health/health-care/data/database> (accessed December 16, 2022).

3 WB countries/territories included in this study are: Albania (AL), Bosnia and Herzegovina (BA), North Macedonia (MK), Kosovo* (XK), Montenegro (ME), and Serbia (RS) Eurostat, EU Assigned Country Codes, https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Glossary:Country_codes (accessed November 20, 2022).

4 *This designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo Declaration of Independence.

5 State Statistical Office of the Republic of North Macedonia MakStat Database, SSO, Skopje, 2022, <http://makstat.stat.gov.mk/PXWeb/pxweb/en/MakStat> (accessed December 16, 2022).

significantly higher when considering informal employment and unregistered employees at family farms, where family members are engaged occasionally or permanently. These employment aspects are particularly important for the rural population, which mainly secures its core income through agriculture. Of the total area of North Macedonia, 87 percent is rural and home to 45 percent of the total population.⁶

Agriculture in North Macedonia is organized in a dual system, with production carried out at family farms on the one hand, and commercial enterprises on the other. Family agricultural holdings are characterized by their small sizes, with 1.8 hectares of average agricultural area frequently distributed across 8-10 plots of land, with 2.14 livestock units and 2.5 hired persons.⁷ More than half of these farms are considered very small in terms of economic output, with just 2,000 EUR annual income.⁸

Regarding the age structure of these farms, more than 42 percent are over 55 years old, with an educational structure in which more than 45 percent have no formal education or only primary education, and only 8 percent have higher education. With such characteristics, these farms have limited potential for production and development, considering they cannot achieve economies of scale or standardized market-quality production. They also lack association and cooperation among each other, as well as the knowledge required to introduce new technological and innovative practices. If taking into account that the largest shares of arable land (85%) and agricultural livestock (95%) are found on family farms, this is a systemic weakness of agriculture in North Macedonia and a serious challenge to public policies seeking to retain sustainability.

In comparison, agricultural companies present much better numbers, considering that a large part of them are derived from former agro-industrial *combinats* – a capital-intensive, socialist structure with horizontal and vertical integration and consolidated plots. Thus, there are 280 registered agricultural companies in total,⁹ and they possess about 55 thousand hectares or 15 percent of the total land. That makes an average of some 200 hectares per company. Land is organized in plots with regular shapes and sizes, and 48 thousand hectares consist of plots larger than 10 hectares each. They each own an average of 82 livestock units and employ about 1,600 people, of which about 16 percent have higher education.¹⁰

This structure of agriculture in North Macedonia hampers the sufficient production of basic food products such as wheat, corn, barley, sunflowers, milk, and meat. The subsectors for fruits, vegetables, and viticulture produce enough to supply the domestic population, and the surplus is exported. Production mostly takes place at family holdings, where the available land capacities in these labor-intensive subsectors yield sufficient quantities. However, given these farms' small-scale structure and aforementioned productivity hindrances, as well as weak market connections along the entire chain of vertical integration, they are unable to provide basic food products in sufficient volume and quality. Basic food production largely takes place at agricultural companies and is exclusively market oriented. However, due to their comparatively small total land and livestock capacities, they cannot provide higher levels of supply to meet consumer demand.

Set up this way, the agricultural sector in North Macedonia struggles to produce enough food for the population in times of crisis. This was evident during the COVID-19 pandemic and has wors-

6 The Republic of North Macedonia, EU Instrument for Pre-Accession (IPA) Rural Development Programme 2021-2027, IPARD III, Skopje, 2021, https://ipard.gov.mk/wp-content/uploads/2022/01/Draft-IPARD-III-PROGRAMME-MK_210122.pdf (accessed November 20, 2022).

7 State Statistical Office of the Republic of North Macedonia, Skopje, Structure and Typology of Agricultural Holdings, 2016, 5.4.17.02/888, SSO, Skopje, 2017, https://www.stat.gov.mk/PrikaziPoslednaPublikacija_en.aspx?id=79 (accessed November 20, 2022).

8 Ibid.

9 Ibid.

10 Ibid.

ened now that not only North Macedonia faces the threat of global food insecurity.

The Russian war in Ukraine has strongly affected North Macedonia's agricultural and food sector both directly, through the increase in prices for raw materials such as energy, mineral fertilizers, and animal feed, and indirectly through the resulting higher consumer prices in the food market. This weakens the overall economy by increasing the inflation generated by climbing energy and food prices. In July 2022, the cost of living compared to the same month in the previous year had increased by 16.5 percent. This has a noticeable impact on living standards, as household spending on food and beverages ordinarily occupy major portions of household income. Usually averaging around 40 percent, this spending reached 47.1 percent in 2021.¹¹

In this emerging crisis, the agricultural sector does not have the capacity to deal with the enormous rise in costs by itself, as the increases in output prices do not follow with the same intensity. The price indices for August 2022, compared to the same month in the previous year, increased by 22.6 percent for agricultural inputs, with an increase of 11.6 percent for agricultural outputs.¹² This indicates a large disparity and suggests that sectoral policies must respond with targeted measures. At the beginning of the crisis, measures were created to subsidize fertilizer with 40 to 65 EUR per hectare, as well as fuel with 23 to 35 EUR per hectare.

Overall, the sector is supported by a complex set of agricultural and rural development policy instruments and measures. The total budgetary transfers in North Macedonia between 2012 and 2021 amounted to 133 million EUR, gradually increasing from 105 million EUR in 2012 to 163 million EUR in 2021.¹³ About three quarters of the budgetary transfers are dedicated to market and direct

support payments, dominantly as direct payments per area or head of livestock, as well as per output delivered to buyers and processing companies. This support structure is comparable to Serbia and Bosnia and Herzegovina, whereas the other WB countries commit larger portions of their budgetary transfers to structural and rural development, and other measures related to agriculture (Figure 1).

Looking closer, structural and rural development support is almost completely delivered through mechanisms targeted towards improving competitiveness (Figure 2). These mostly take shape as on-farm investment and restructuring support, except in Albania, where agricultural infrastructure is predominant. This support is most diverse in North Macedonia, where in addition to competitiveness incentives, budgetary transfers are also increasingly funneled toward environmental and societal benefits. They are mostly represented in agri-environmental, organic, and animal welfare payments to farmers, which reached two million EUR in 2021. Support for rural economies and populations also take shape in payments incentivizing the creation and development of non-agricultural activities, infrastructures, and urban development.

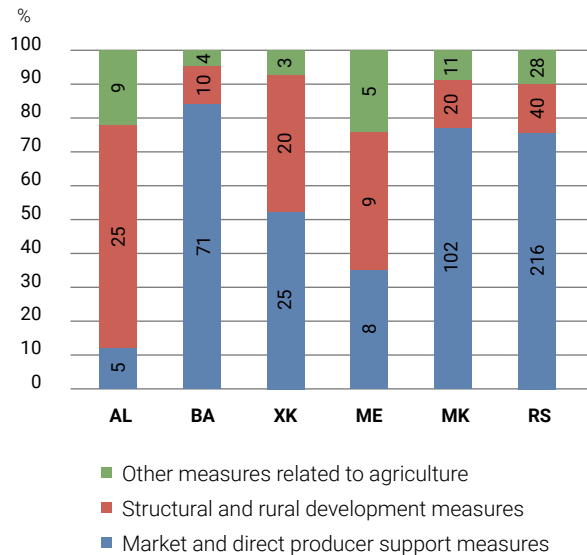
Another important impetus is the EU-supported Instrument for Pre-accession Assistance for Rural Development (IPARD), which provided around 60 million EUR in EU funds, topped with 25 percent national funds between 2014 and 2020. These funds have been almost fully approved for projects concerning investments on farms and in the processing industry, as well as on-farm and off-farm activity diversification. In addition to agri-food modernization and diversification schemes, the new IPARD program will also allocate increasing support – 97 million EUR between 2021 and 2027 – to agri-environmental, climate, and organic actions, as well as

11 State Statistical Office of the Republic of North Macedonia MakStat Database, SSO, Skopje, 2022, <http://makstat.stat.gov.mk/PXWeb/pxweb/en/MakStat> (accessed December 12, 2022).

12 Ibid.

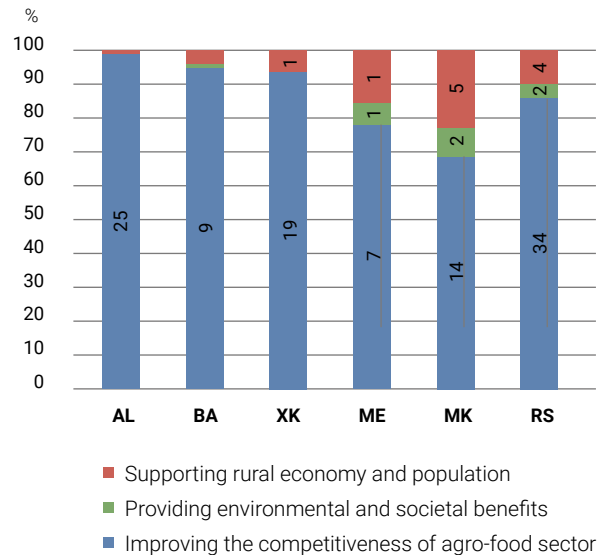
13 Agricultural Policy Plus, Agricultural Statistics, North Macedonia, http://app.seerural.org/wp-content/uploads/2022/11/MK-STAT-DATABASE_2010-2021_F-public.xlsx, 2022 (accessed December 16, 2022).

Figure 1: Average of Total Budgetary Support to WB Countries in Million EUR Between 2012 and 2021



Source: WBC APMC Databases (2022) Agricultural Policy Measure Classification Databases for Western Balkan Countries (compiled under series of SWG projects), updated 2022, unpublished data.

Figure 2: Average Structural and Rural Development Support to WB Countries in Million EUR Between 2012 and 2021



Source: WBC APMC Databases (2022) Agricultural Policy Measure Classification Databases for Western Balkan Countries (compiled under series of SWG projects), updated 2022, unpublished data.

Table 2: Strategic and Specific NARDS Objectives for 2021 to 2027

Strategic objectives	Specific objectives
Improving the competitiveness of the agri-food sector, economic sustainability, and income of agricultural holdings;	<p>S01. Supporting sustainable income for agricultural holdings based on their contribution to improving food security;</p> <p>S02. Strengthening market orientation and increasing competitiveness with a focus on research, technology, and digitalization;</p> <p>S03. Improving the position of farmers along value chains;</p>
Applying environmental practices in production that lead to climate change mitigation and adaptation;	<p>S04. Contributing to climate change mitigation and adaptation, including greater reliance on sustainable energy;</p> <p>S05. Encouraging sustainable development and the efficient management of natural resources such as water, soil, and air;</p> <p>S06. Contributing to biodiversity protection, improving ecosystem services, preserving natural habitats and landscapes;</p>
Ensuring sustainable development in rural areas.	<p>S07. Attracting young farmers and facilitating rural business development;</p> <p>S08. Promoting employment, growth, social inclusion, and local development in rural areas, including bio-economy and sustainable forestry;</p> <p>S09. Improving agriculture's response to society's considerations, including food safety, nutritional value, food waste, and animal welfare.</p>

Source: Ministry of Agriculture, Forestry and Water Economy of the Republic of North Macedonia, National Strategy for Agriculture and Rural Development for the Period 2021-2027 (NSARD 2021-2027), MAFWE, Skopje, January 2021, <https://www.fao.org/faolex/results/details/en/c/LEX-FAOC209144/> (accessed November 12, 2022).

local development, private-public initiatives, advisory services, and rural infrastructure.¹⁴

The higher prioritization of environmental goals and policy instruments, as well as measures linked to climate change, biodiversity loss, and the management of natural resources are also foreseen in the National Agriculture and Rural Development Strategy for 2021 to 2027. Besides the ongoing strategic objectives of improving sectoral competitiveness, a growing focus is placed on encouraging environmental practices that would help mitigate and adapt to climate change and ensure the sustainable development of rural areas (Table 2).

Greener policy instruments and measures linked to the management of natural resources, biodiversity, and climate change are another integral part of the Green Agenda for the Western Balkans (GAWB).¹⁵ The GAWB complements the EU Economic and Investment plan for the Western Balkans, which aims to accelerate the long-term recovery of the region – severely disrupted by the COVID-19 pandemic and the subsequent aftermath of the war in Ukraine – foster a green and digital transition, and engender sustained economic growth. The GAWB is based on the European Green Deal approach and supports:

- Climate action related to decarbonization, energy, and mobility;
- Circular economy models addressing waste, recycling, sustainable production, and the efficient use of resources;
- The protection and restoration of regional biodiversity;
- The reduction of air, water, and soil pollution;

- Sustainable food systems and rural development.

With one eye on green and digital transformations, particular emphasis is placed on digitalization as a crucial enabler for these five pillars. Their goals should be pursued with concrete actions, far-reaching instruments, and sufficient financial resources. These needs were also recognized in the policy recommendations of a roadmap to a green economy in the Western Balkans composed by a group of experts and the Balkan Rural Development Network. Together, they proposed concrete activities and called for a concerted policy agenda with focus on collaboration, innovative approaches, and integrated governance structures to meet green objectives.¹⁶

Nevertheless, the food security issues raised by the implications of COVID-19 and exacerbated by the war in Ukraine call into question the dynamics for greener policies and require careful complementary actions addressing economic, social, and environmental goals simultaneously. Although, on a strategic level, environmental and green goals are notably included, in practice, most of the support provided is focused on direct payments and on-farm investments.

The budgetary transfers providing environmental benefits comprised an average of 1.13 percent of the total agricultural budgetary support to North Macedonia between 2012 and 2021 and grew to 2.28 percent between 2020 and 2021.¹⁷ This is the highest share recorded in all Western Balkan countries. The new geopolitical situation highlights the urgency to increase domestic food production to ensure food security and sovereignty. With the growing chal-

14 The Republic of North Macedonia, EU Instrument for Pre-Accession (IPA) Rural Development Programme 2021-2027, IPARD III, Skopje, 2021, https://ipard.gov.mk/wp-content/uploads/2022/01/Draft-IPARD-III-PROGRAMME-MK_210122.pdf (accessed November 20, 2022).

15 European Commission, Guidelines for the Implementation of the Green Agenda for the Western Balkans, Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, October 2020, https://neighbourhood-enlargement.ec.europa.eu/system/files/2020-10/green_agenda_for_the_western_balkans_en.pdf (accessed December 16, 2022).

16 Aleksandra Martinovska Stojcheska, Tina Volk, Miroslav Rednak, Emil Erjavec, Ilona Rac, Edvin Zhllima, Grigor Gjerci, Sabahudin Bajramović, Željko Vaško, Mihone Kerolli-Mustafa, Ekrem Gjokaj, Bekim Hoxha, Dragi Dimitrievski, Ana Kotevska, Ivana Janeska Stamenkovska, Darko Konjevic, Mirsad Spahic, Natalija Bogdanov, and Milena Stevović, Policy Recommendations for Facilitation of the Approximation Process of the Western Balkan Countries to the EU CAP Segment Related to Green Economy and Entrepreneurship, in: Balkan Rural Development Network, 2021.

17 Agricultural Policy Plus, Agricultural Statistics, North Macedonia, http://app.seerural.org/wp-content/uploads/2022/11/MK-STAT-DATABASE_2010-2021_F-public.xlsx, 2022 (accessed December 16, 2022).

allenges in producing enough food supplies and an ongoing focus on increasing the volume of agricultural production, some green efforts may temporarily be put on hold. But appropriate solutions need to account for all dimensions of sustainability.

Recommendations

As EU candidates or potential candidates, the Western Balkan countries are particularly driven to respond to the EU Green Deal ambitions, and also to uphold the Paris Agreement and UN Agenda 2030 Sustainable Development Goals. The Paris Agreement and tight links with the EU and global goals provide the countries aspirational reasons to work more vigorously at bolstering greener domestic transformation pathways. This is acutely enhanced by the EU adopted Economic and Investment Plan and the adjacent Western Balkan Green Agenda. In general, all WB countries have set environmental and green aspects high in their policy agenda and strategic documents, but what is missing is actually acting upon them. In that respect, it is necessary to establish good governance of public policies and effective implementation, involving relevant stakeholders with concerted agendas. An important recommendation is to have well organized, functional, evidence-based systems of policy planning, implementation, monitoring, and evaluation, based on timely and accurate data and analyses.

Taking into consideration the state of agriculture and the ongoing crisis of food, energy, and finance, several more specific recommendations can be drawn and are already being discussed among relevant stakeholders in the case of North Macedonia.¹⁸ On the national level, a contingency plan for the sufficiency and acute provision of food to the domestic market in crises must urgently be adopted. It is especially important to create an accurate overview of the nation's production capacities and potentials on one side, and the population's nutritional needs on the other. This approach should further be translat-

ed into the development of a food-security strategy. In this respect, it is necessary to stress the need for timely and accurate agricultural, socio-economical, and diet-related statistics to enable evidence-based analyses, policy creation, decision-making, monitoring, and evaluation.

All available resources for food production need to be mobilized; considering that large expanses of agricultural land remain unused, this resource should be made available for the production of strategic crops to supplement the domestic market and reduce the need for imports. In this regard, a long-term solution for the management of state land is needed. One possible solution might be the establishment of an agency or fund for agricultural land. However, it is important to take precautions to ensure that increased land use does not compromise environmental sustainability and that land is distributed fairly and transparently.

To reduce production costs, there are various possible measures available, such as exempting the producers of strategic crops from rent fees for state agricultural land, granting input subsidies for fertilizer and fuel, providing pre-financing, and increasing direct payments for strategic products.

In times of market disruption, when the purchasing price falls below the cost of production, interventions to supplement income should be provided, for instance, for commodity reserves and storage assistance. Taking into account the increased costs of fertilizers, which on average account for one fifth of total production costs for vegetable crops, and the highest share ranging around one third for cereal crops, temporary support to producers of strategic crops is needed to offset increased expenditures.

Common market organization measures, such as the EU school scheme, are also to be supported, since they provide dual benefit. First, they help in

18 National Convention on the European Union of North Macedonia, Working Session 10 (April 2022): Agri-food Markets and Food Security in the Context of the Current Global Crisis. Working Group 1 Agriculture and Rural Development, Skopje, <https://nkeu.mk/category/working-groups/working-group-1/> (accessed November 1, 2022).

the difficult marketing of production surplus, especially regarding perishable goods such as fruits and vegetables. Secondly, they foster healthy eating habits among young generations.

Last but not least, reducing food waste along the supply chain, from farm to fork, is essential to improving food security. In absence of exact national statistics, the global estimations are that nearly one third of food produce is lost along the supply chain. Food is wasted during production, in post-harvest activities, during processing, along the distribution network, and finally by the end consumers. The Sustainable Development Goals envisaged by the 2030 Agenda for Sustainable Development also directly link food waste to pressure on natural resources, contributing to their depletion and driving pollution and lost income, as well as affecting food availability and affordability, especially for most vulnerable groups. This issue deserves particular attention and action along the whole agri-food chain.

Sustainable Agriculture and Food Security

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The agriculture sector continues to play an important role in Kosovo's economy by providing food, employment, and a sizeable percentage of the Gross Domestic Product (GDP); in 2020, the agricultural share of the country's GDP was around ten percent.¹ Based on this importance, agricultural policies have become an increasingly key issue in Kosovan development policies.

Food Security

Major global changes such as inflation of food prices, population growth, shrinking land mass, global warming, natural disasters, global pandemics, and the current war in Ukraine have led to rising food insecurity. The war in Ukraine, the uneven recovery from the COVID-19 shocks and restrictions, as well as a general recession, extreme weather shocks, and low stocks from the previous year have all contributed to an alarming rise in the level and volatility of food and fertilizer prices.²

To be sustainable, agriculture must meet the needs of present and future generations, while ensuring profitability, sustainability, as well as social and economic equity. Food security happens when "all people at all times have physical and economic access to sufficient, safe, and nutritious food to meet their dietary needs and food preferences for an active and healthy life."³ Food security has four standard dimensions: availability (having a sufficient quantity of food available regularly); access (having enough resources to acquire suitable and

healthy food); utilization (having a reasonable food use based on knowledge of essential nutrition and care); and stability of availability, access, and utilization of food.^{4,5}

There are several obstacles slowing the development of agriculture in rural areas. Kosovo faces a negative trade balance of agri-food products, and the agricultural sector continues to have poor access to financing. Interest rates for agricultural loans are high. These difficulties are amplified by the fragmentation of farms into small and medium sizes, an overall lack of infrastructure, poor market access, the insufficient application of technology, and the low quality of education and social services.⁶

Analyzing farm incomes from 2019, one notices that the total average output per farm was low compared to other countries in the region and in the EU, according to the Farm Accountancy Data Network FADN.⁷

Kosovo is a low-income country in which consumption depends greatly on imports. Consequently, the rise in global food and fuel prices, which has impacted food transport costs and increased general inflationary pressures, has led to soaring inflation in Kosovo. The nation's food security is significantly aggravated both in terms of physical availability and economic access. According to the latest Food and Agriculture Organiza-

1 Ministry of Agriculture, Kosovo Green Report 2021, Forestry and Rural Development, Prishtina, 2021, https://www.mbpzhr-ks.net/repository/docs/Green_Report_2021.pdf (accessed October 10, 2022).

2 CGIAR, Seven Actions to Limit the Impact of War in Ukraine on Global Food Security, Science for a Food-secure Future, Montpellier, France, 2021, www.cgiar.org (accessed October 11, 2022).

3 FAO, Rome Declaration on World Food Security and World Food Summit Plan of Action Rome Declaration on World Food Security; Rome, Italy, 1996.

4 Polly J. Ericksen, Conceptualizing Food Systems for Global Environmental Change Research, in: Global Environmental Change, Volume 18, Issue 1, February 2008, 234-245.

5 United Nations System High Level Task Force on Global Food Security, Food and Nutrition Security: Comprehensive Framework for Action, Summary of the Updated Comprehensive Framework for Action (UCFA), 2011, https://www.fao.org/fileadmin/templates/cfs/Docs1314/GSF/GSF_Version_3_EN.pdf (accessed January 20, 2023).

6 World Bank, Agriculture for Jobs and Growth in the Western Balkans: A Regional Report, Washington, D.C., <https://openknowledge.worldbank.org/handle/10986/32204> (accessed January 20, 2023).

7 Ministry of Agriculture, Kosovo Green Report 2019, Forestry and Rural Development, Prishtina, 2021.

tion (FAO) report on food security, one of the main reasons for the increase in food insecurity in developing countries is that many people cannot afford the rising costs of food staples as the nutritional needs of vulnerable groups continues to grow.⁸

The annual inflation rate measured in July 2022 was 14.2 percent. Within a year, between July 2021 and July 2022, the total harmonized Consumer Price Index (CPI) also went up by about 14.2 percent in Kosovo.⁹ In the third quarter (Q3) of 2022, the Index of Input 1 increased by 27.9 percent, compared to the same period in 2021. Meanwhile, the index of Input 2 has increased by 10.4 percent, compared to the same period in 2021. By now, the total index of inputs (Input 1 + Input 2) has increased by 19.7 percent, compared to the same period in 2021.¹⁰ The fertilizer prices have risen nearly 30 percent since the start of 2022, following last year's 80 percent surge. Soaring prices are driven by a confluence of factors, including surging input costs, supply disruptions caused by sanctions (Belarus and Russia), and export restrictions (China). Concerns around fertilizer affordability and availability have been amplified by the war in Ukraine,¹¹ which had a hand in increasing the production cost of agricultural products.

High input costs, supply disruptions, and trade restrictions have been the primary drivers of this drastic price increase. This is mainly explained by the increase in consumer prices for food and agricultural products during this same period, with bread and cereals to 32.1 percent; transportation up 27.7 percent; dairy and eggs 26.3 percent; meat

21.8 percent; sugar, jam, honey, chocolate, and sweets 19.1 percent; coffee, tea, and cocoa 16.8 percent; various foodstuffs, sauces, spices, salt, baby food, etc. 15.2 percent; vegetables 7.7 percent; alcoholic beverages 7.1 percent; mineral water, soft drinks, fruit, and vegetable juices 6.5 percent, etc.¹²

The latest data show that the inflation of food products in the country was and continues to be high. Meanwhile, global inflation rates continue to rise. As prices for agricultural raw materials and inputs such as fertilizers, pesticides, machinery, and fuel rise due to climate stress, export bans, and other factors, prices for domestic production are also rising.

Challenges of the Agricultural Sector in Food Security

The typology of farms in Kosovo is based on agricultural and economic size, using the standard of production coefficients. Agricultural activity in Kosovo is carried out on farms characterized by diversity in terms of land used, production patterns applied, and geographical distribution. The study of farm typologies is focused on variables such as soil quality, socio-economic conditions, infrastructure, agricultural production and inputs, production profitability, and an index of agricultural benefits. Combining economic variables with non-economic variables to classify small farms provides insights for more effective farm classifications.¹³

Although at different stages of development, the countries of the Western Balkans all face similar

8 FAO, The State of Food Security and Nutrition in the World, Food Agriculture Organisation, 2022, <https://www.fao.org/publications/sofi/2022/en/> (accessed October 19, 2023).

9 Kosovo Agency of Statistics, Input Price Index in Agriculture, The Kosovo Agency of Statistics, Q2 2022, Pristine, 2022 (accessed December 8, 2022).

10 Kosovo Agency of Statistics, Input Price Index in Agriculture, Q3 2022, Prishtinë, <https://ask.rks-gov.net/sq/agjencia-e-statistikave-te-kosoves/bujqesi/indeksi-i-cmimeve-dhe-cmimet-ne-bujqesi> (accessed January 20, 2023).

11 John Baffeswee and Chian Koh, Fertilizer Prices Expected to Remain Higher for Longer, World Bank Blogs, May 11, 2022, <https://blogs.worldbank.org/opendata/fertilizer-prices-expected-remain-higher-longer> (accessed February 20, 2023).

12 Kosovo Agency of Statistics, Harmonized Index of Consumer Prices (HICP), December 2022, <https://ask.rks-gov.net/en/kosovo-agency-of-statistics/add-news/harmonized-index-of-consumer-prices-hicp-december-2022> (accessed January 20, 2023).

13 Thomas Herzfeld, Judith Möllers, Egzon Bajrami, Sophia Davidova, Muje Gjonbalaj, Iliriana Miftari, Nol Krasniqi, and Valon Xhabali, Commercialization of Smallholder Farms in Kosovo, Food Agriculture Organisation of United Nation, Budapest, 2022, <https://doi.org/10.4060/cb7828en> (accessed January 20, 2022).

challenges in transforming and modernizing their agricultural and food sectors to become competitive in regional and EU-wide markets.¹⁴ Most farms are too small and inefficient to compete for access to the export and domestic markets. A particular challenge for decision-makers on the political level is boosting productivity growth on the huge number of small- and medium-sized farms.¹⁵ In Kosovo, 35 percent of the total area of arable land is farmland between two and five hectares, followed by the size of five to ten hectares (21%), then one to two hectares (16%). Finally, the smallest farming surface is less than 0.5 hectares.¹⁶

The agricultural and food sector is changing due to import competition, making more quality products available at more affordable prices. This change is also favored by the rising demands of consumers with higher incomes and varied preferences. This is pushing food producers to consider the advantages of investing in the consolidation of the value chain, reducing transaction costs within the chain, and improving food quality and safety.

In a time of globalization and global interlinkage of economies, no crisis in any one country can be ignored as it will spill over into other countries as well. No conflicts, in any part of the globe, remain someone else's problem alone.

Meeting rising demands for food security while adhering to principles of sustainable development requires a comprehensive approach by all important actors in the public and private sectors. Their combined efforts must ensure effective care for natural resources, the efficient use of land, water, and forests, the securing of new techniques and technologies, as well as experienced and well-educated human capital.

Recommendations

Based on these facts, it is necessary to study and analyze the characteristics of farms in Kosovo more carefully in order to understand how these farms can find support in upholding food security while remaining economically productive and competitive in national and international markets. Small farmers should not be overlooked but supported – especially in the Western Balkan countries, where most farms are severely fragmented. Land reform, and especially measures that prevent the further fragmentation of lands and allow the joining of lands on a voluntary basis to increase farm area, should be implemented as soon as possible.¹⁷

While government financial relief is needed to help farms and food processors survive inflation, food industries and governments must work together to develop long-term strategies and policies that balance industrial flexibility, product specialization, supply chain integration, local food systems, as well as market mechanisms, regulations, and policy interventions that keep markets open. Well-functioning domestic markets, regional cooperation, and an open international trading system are all important to connect producers to market opportunities and help food get to where it is needed. Open borders and well-connected internal markets can help contain supply disruptions. This is especially important for food-importing countries.

Addressing the food crisis requires working together across sectors and borders, both to mitigate immediate impacts and to reshape food systems so as to support healthy diets and align food production and consumption more closely to sustainable development. Now, more than ever, caution must be exercised when employing protectionist measures and restricting exports from countries that are

14 Julian A. Lampietti, David G. Lugg, Philip Van der Celen, and Amelia Branczik, *Agriculture and Rural Development in the Western Balkans*, World Bank Report, 2016, <https://openknowledge.worldbank.org/handle/10986/13541?show=full> (accessed January 20, 2023).

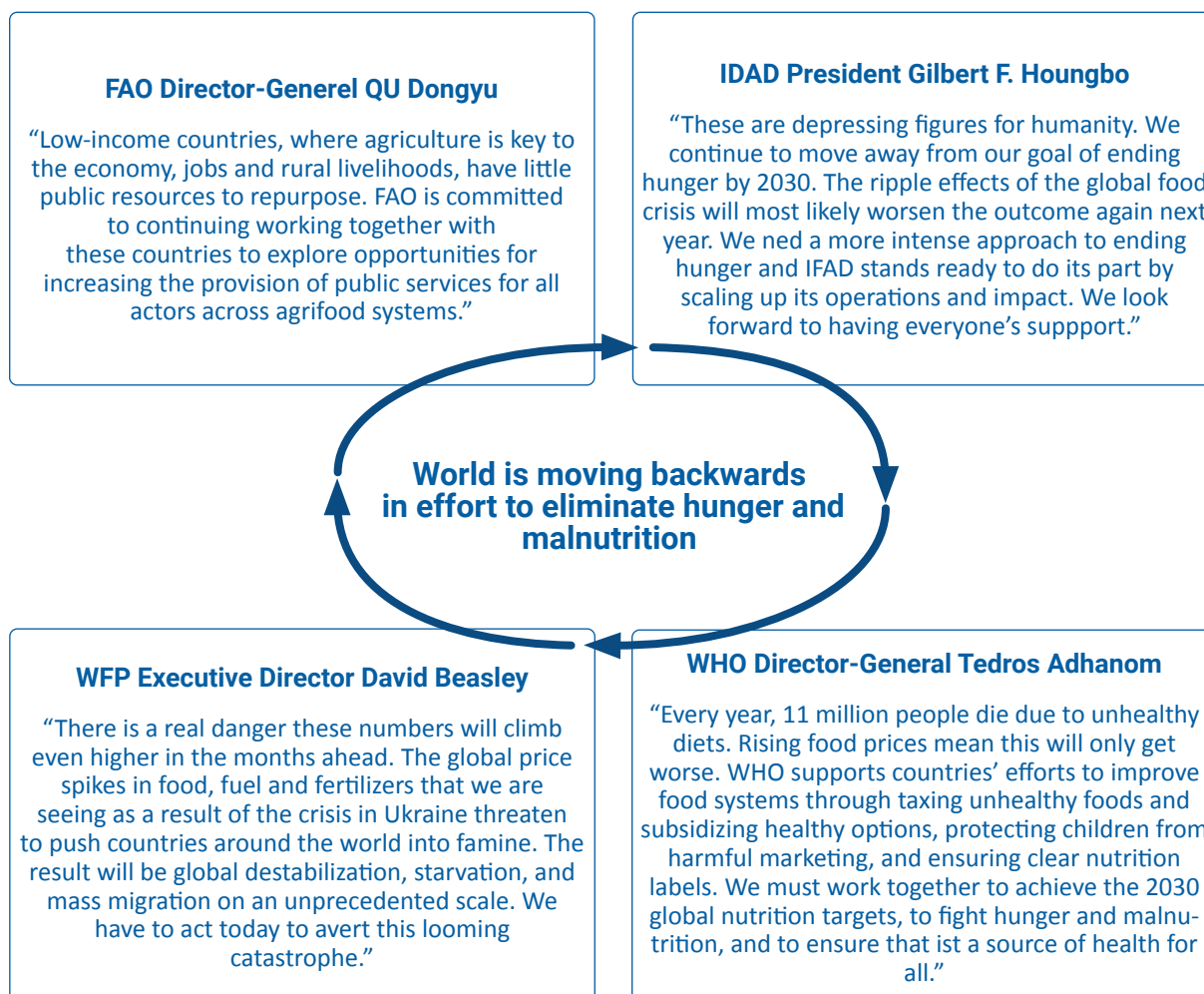
15 Emine Daci-Zejnullahi, *Tipet e fermave bujqësore në Kosovë dhe konkurrueshmëria e tyre në treg (rajoni i Pejës, Gjakovës dhe Prizrenit)* 2017, https://uet.edu.al/wp-content/uploads/2021/11/Emine_Daci.pdf (accessed January 20, 2023).

16 World Bank Group, *Raising Agricultural Productivity*, November 2021, <https://openknowledge.worldbank.org/bitstream/handle/10986/36899/P171951090fe880070be900ab47bbdb5f5e.pdf?sequence=1> (accessed January 20, 2023).

17 MAFRD, LIGJI NR. 04/L-040 PËR RREGULLIMIN E TOKËS.

Important Statement

Figure 1: Important Statements of Representatives of International Organizations that Deal with the Issue of Food Safety



Source: FAO, Sustainable Food and Agriculture, Food and Agriculture Organization of United Nation (accessed June 7, 2022).

large food producers in order to prevent and mitigate hunger, especially in countries with underdeveloped and developing economies.

Sustainable long-term strategies need to be developed to address the challenges that the agriculture and food sector is currently facing and will face in the future. It will be particularly important to understand the factors that enable food and agricultural businesses to adapt their business models quickly. WB countries should align policies with EU food safety and animal welfare standards and

promote environmentally friendly and organic agriculture. Adaptation to climate change is another challenge that the agro-food sector will face. Rainfall, floods, and droughts will result in lower yields, soil degradation, and an increase in diseases and pests – all bringing about potentially significant economic losses. These situations will require expertise in the handling of products that mitigate and manage the effects of climate change. Otherwise, the main focus of climate adaptation will be on the promotion of new agricultural practices.

In the medium and long term, investment in research and development are especially important to increase agricultural productivity, diversify climate- and food-friendly crops, and identify the most suitable region for their growth. This must be the focus for policymakers: to identify the most optimal investments and innovations to increase food and nutrition security as well as resilience to future challenges.

Populations require a heightened awareness of organic and integrated food production systems, of sustainable food production and processing, and of their impact on the environment.

The agro-food sector would also benefit from increased competition and improved efficiency in farm production. This could be achieved through the prioritization of grants for medium-sized farms, with the option of increasing farm size.

Sectors with higher added value and market demands should be promoted. Agriculture policies targeting specific sectors, such as fruits and vegetables, herbal and aromatic plants, and livestock can increase added value, competition, and export and import substitutions.

Restrictions on the import of food from countries that are large producers, such as EU countries, CEFTES countries, and other countries, represent a major concern for Kosovo; trade disruptions, food export bans can harm national food security. Kosovo is a large net importer of food, and food security is largely dependent on imports. In 2021, Kosovo imported food worth 467 million EUR from EU countries, 266.6 million EUR from CEFTES countries, and 232 million EUR from other countries.¹⁸

The government of Kosovo, like the governments of other countries, must take concrete steps to support the population and the economy by using the relevant economic recovery package to address

food production and reduce import dependence. Doubling subsidies for key crops in agricultural sectors and sub-sectors is of strategic importance to the country.

The reduction of excise duty rates for oil for farmers should suffice to cover the risk that farmers will not increase the production of their crops this year. Such support should be provided continuously until prices normalize.

Kosovo imports about a quarter of the fertilizers it uses in agriculture from Russia, one of them being urea fertilizers. Despite the fact that prices for this product have increased significantly since 2021, it will now become problematic for companies in Kosovo to ensure direct supply. Bearing in mind that Kosovo is a net importer of most products, price inflation is immediately reflected in this. The Ministry of Agriculture and the relevant state institutions together with the private sector must compile concrete projects to address this problem.

Taking into account a farm's structure, size, fragmentation, management, and output, we must analyze the comparative advantages of other countries in the region. Kosovo should determine the crops that promise the greatest economic yield and identify sectors in which it can compete in European and global markets.

Kosovo's participation in the global market is difficult, and coordination between WB countries is a necessity. Shaping good neighborly relations and regional initiatives requires legislation on economic and trade policies that align with EU legislation. Countries in the region face similar constraints, such as the absence of coherent policies and strategies to guide agricultural research, priorities based on economic interests instead of farmers' needs, poorly coordinated research, and understaffed and underfunded agricultural advisory services with inadequate linkages to research institutions.

¹⁸ MAFRD, Ministry of Agriculture, Forestry and Rural Development, *Eksportidheimporti i produkteve bujqësore 2020-2021*, https://www.mbpzhr-ks.net/repository/docs/Eksporti_dhe_Importi_i_Produkteve_bujqesore_20202021.pdf (accessed January 20, 2023).

This leads to the following recommendations:

- Shift research from technology generation to technology transfer, while collaborating with research institutes and universities in other countries;
- Use technology that has been tested and adopted by farmers in neighboring countries or under similar agricultural conditions;
- Base technology selection on the assessment of farmer's needs, emphasizing market-oriented production technologies;
- Strengthen capacities of the Kosovo Institute of Agriculture (KIA) to conduct food quality control, seed testing and certification, agricultural input analysis and control activities, soil analyses, training, and dissemination of information;
- Undertake technology identification, assessment, and diffusion cost-effectively within a regional research collaboration framework;
- Develop incentives to recruit young national scientists, including postgraduate programs, as well as regional exchange programs for existing research staff and on-the-job training for field and laboratory technicians;
- Enhance regional cooperation to promote research and innovation in the agriculture sector.¹⁹

Cooperation among agricultural research institutes in the region will facilitate the sharing of experience and the transfer of agro-technologies and knowledge. This will enhance the efficient use of limited resources, prevent duplicated work, and improve agriculture's response to the needs of farmers as well as existing and future markets.

¹⁹ Emine Daci-Zejnullahi, Agriculture Sector in Kosovo and Opportunities for Cooperation with Balkans Countries, 2014, https://www.researchgate.net/publication/319331288_Agriculture_Sector_in_Kosovo_And_Opportunities_for_Cooperation_With_Balkans_Countries (accessed October 1, 2022).

Circular Economy in the Western Balkan Region

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With the adoption of the Western Balkans Green Agenda in 2020, the Western Balkan (WB) countries agreed to key elements of the European Green Deal. They committed to implementing measures and achieving compliance in five areas, including a circular economy (CE). These are small and open economies, closely neighbored to the European Union. The European Union (EU) is the largest trade partner to all WB countries, with a share of 70 percent of total trade in the region.¹ Access to the EU market, as well as financial assistance from the EU, will critically depend on the progress achieved in transitioning toward a greener economy.

At the same time, the transition of resource-intensive industries in WB countries toward a green and circular economy is no simple task. Brown industries (high carbon emitting industries) are historically prominent and employ a significant share of the labor force. They have established value chains and market infrastructures, and they attract foreign investment to the region with a combination of relatively cheap primary resources (when excluding negative externalities) and an inexpensive labor force.²

As resource-intensive economies, countries in the region stand to gain significant economic benefits by implementing CE models. However, it is important to note that, as with the previous market transition in the region, there is a high probability that this inevitable process might also be unpopular and face considerable opposition, mainly due to its initial financial costs.

While societies and economies across the world have been adopting structural changes to reduce their environmental impact and prevent the cata-

strophic consequences of accelerated resource consumption, in the WB, CE is frequently confused with waste management and recycling – which is actually only the final stage of a product’s life cycle. The prevention of pollution and waste throughout all stages of a product’s life cycle are still out of focus for many regional actors.

Transitioning to a Circular Economy

A set of financial and non-financial incentives should be implemented to facilitate the transition to a CE:

- Support the creation of new value;
- Mitigate investment risks;
- Enhance the competitiveness of CE supply chains.

Incentives should be designed and implemented to correspond to the desired impact, size, scope, and time of implementation, with a more rigorous control mechanism for larger incentives. Effective incentives should:

- Aim to achieve concrete benefits;
- Be proportional to the desired income;
- Prevent detrimental interests and reduce unwanted compromises;
- Reflect local contexts and market maturity levels;
- Mitigate the effects of free-riders when possible;
- Evolve over time.³

Five groups of incentives were identified to help decision-makers transition to a CE:

1. Improved legislation regulating the CE;
2. Fiscal incentives for the CE;

1 World Bank, Greening the Recovery, in: Western Balkans Regular Economic Report, No. 20, Fall 2021, October 2021, 58, <https://openknowledge.worldbank.org/handle/10986/36402>, (accessed October 3, 2022).

2 Ibid, 46.

3 Nicole Couder, Emmanuel Katrakis and Gianpiero Nacci, Incentives to Boost the Circular Economy: a Guide for Public Authorities, European Commission, 2021, 12, <https://data.europa.eu/doi/10.2777/794570> (accessed October 3, 2022).

3. Introduction of the full price to cover waste management costs;
4. Green public procurement;
5. Education and awareness-raising programs.⁴

Improved Legislation Regulating Circular Economy

A stimulating political and finely tuned regulatory framework are prerequisites for transitioning to a CE. They should be designed to enable the preservation and upgrade of material value along production systems and to minimize the use of primary materials. Current policies and regulatory frameworks are not sufficient to make the business models of circular economies and value chains successful.

The following principles must be taken into consideration when formulating policies and interventions:

- Preservation and creation of value;
- Proportionality to the level of externality;
- Progressive dematerialization;
- Innovation sensitivity;
- Integrated policy interventions that support the effective and timely implementation of related existing policies or strengthen their impact.⁵

The most relevant future pieces of legislation related to circular economies are listed in the 2020 EU Action Plan for CE,⁶ and they can serve as the basis for developing a legislative framework in Bosnia and Herzegovina (BiH) and other WB countries. Some possible incentives may include:

- Reducing or terminating government subsidies for mining, fossil fuels, etc.;
- Abolishing restrictions that apply to circular

- products and services;
- Increasing the minimal legal warranty period to regulate product life expectancy and warranty duration;
- Restricting the use of disposable products when a circular alternative is available;
- Defining compensation for the purchase of primary (raw) materials;
- Determining qualitative criteria for recycling to prevent diminishing quality;
- Limiting and restricting the import of certain materials;
- Developing a clear rulebook on CE activities and business models;
- Defining targets for the reuse and refurbishment of products.

Waste management is another priority in BiH,⁷ as well as in other countries in the region.

Fiscal Incentives

Fiscal incentives include various financial incentives, such as taxation, subsidized financing, and internalization of external costs. The European Commission identifies several purposed-based groups of incentives, which are expected to:

- Provide a level playing field for CE actors to compete and succeed in the market;
- Support cooperation along the value chain to reward the optimization of CE solutions;
- Enable the creation of value by supporting models of increased product longevity;
- Stimulate end-user participation in the value chain to ensure product and material circularity;
- Integrate incentives in the public interest to reflect the costs of negative externalities and benefits of positive externalities;
- Increase knowledge and understanding of op-

4 Haris Abaspahić, Vedad Suljić, Medina Garić, Sabina Krupić, Bosnia and Herzegovina – Circular Economy White Paper, Centre for Policy and Governance, Sarajevo, April 2022, 6, <http://cpu.org.ba/publications/wpce> (accessed December 23, 2022).

5 European Commission, Accelerating the Transition to the Circular Economy: Improving Access to Finance for Circular Economy Projects, Publications Office of the European Union, March 2019, 30, <https://data.europa.eu/doi/10.2777/983129> (accessed October 3, 2022).

6 European Commission, Circular Economy Action Plan: for a Cleaner and More Competitive Europe, Publications Office of the European Union, 2020, <https://data.europa.eu/doi/10.2779/05068> (accessed October 3, 2022).

7 Ministry of Foreign Trade and Economic Relations, Environmental Approximation Strategy of BiH, May 2017, 154, <http://www.mvteo.gov.ba/data/Home/Dokumenti/Vodni%20resursi/Environmetal.pdf> (accessed December 23, 2022).

- opportunities related to financing CE business models;
- Support first movers in creating market demand and including consumers in CE business models.⁸

In BiH, Environment Protection Funds earn most of their revenue from various fees and play an important role in the environmental sector, as they support a significant number of projects on an annual basis. For example, in its most recent public call, the Environment Protection Fund of the Federation of Bosnia and Herzegovina (FBiH) awarded 4.5 million EUR to 183 projects – three of which had “CE” in their name.⁹ Yet, these funds are symbolic in comparison to subsidies for coal-based technologies. The funds can take an active role in encouraging CE with the existing and new sources of financing.

Some financial incentives for CE projects in the wider region include:

- Providing direct or indirect financial assistance to encourage companies to make changes toward circular activities;
- Ensuring partly concessionary co-financing or loans for projects aiming to introduce the CE model into operations;
- Providing guarantee funds and partly replenishing investments in fixed assets or starting capital for companies applying circular operations;
- Encouraging banks to introduce targeted loans to support circular operations with subsidized interest rates;
- Offering longer grace periods in targeted loans for circular operations;
- Providing local subsidies for circular products or setting lower service taxes if such a system is introduced;
- Protecting interest rates against the risk of other factors;
- Introducing additional fees, such as excise taxes or taxes for production operations that do not comply with CE requirements or have a negative impact on the environment;
- Providing an alternative source of loans;
- Establishing a fund to support circular operations.¹⁰

Introducing the Full Price of Waste Management Costs

The pay-as-you-throw (PAYT) system is a price model for the collection of waste that has consumers pay for the waste they generate. The introduction of this system is a strong incentive to separate waste at the place of origin and minimize waste generation.

In Albania, Bosnia and Herzegovina, and North Macedonia, the system of Extended Producer Responsibility (EPR) is in force. Despite the need for improvements, it provides a significant added value for this incentive. In BiH, the system encompasses commercial entities – manufacturers, importers, and distributors – and addresses packaging waste across the country (in both: the Federation of Bosnia and Herzegovina, FBiH and the Republika Srpska, RS), as well as electrical and electronic waste in FBiH.

The PAYT system would include municipal waste and thus directly involve households and physical persons. Waste paid under the EPR would not be charged in the PAYT model. To increase the sorting and quality of waste when a municipality signs an agreement under the PAYT scheme, the EPR may provide financing for containers, activities for raising public awareness, and sorting capabilities.

The average weighted annual tariff for waste management is 0.5 percent of household expenditures in BiH, while the EU norm is 1-1.5 percent of

8 European Commission, Accelerating the Transition to the Circular Economy: Improving Access to Finance for Circular Economy Projects, Publications Office of the European Union, March 2019, 8, <https://data.europa.eu/doi/10.2777/983129> (accessed December 23, 2022).

9 Environment Protection Fund of FBiH, Decision on the Selection of Beneficiaries of the Environmental Protection Fund, December 2021, <https://fzofbih.org.ba/wp-content/uploads/2021/12/Odluka-UO-JK-2021.pdf> (accessed October 3, 2022).

10 Ibid 4, 32.

household expenditures. The average fee collection rate is 82 percent in RS, and 87 percent in FBiH, which is very hard to increase given that some 18 percent of the population lives below the national poverty line. The current fee for households includes Value Added Tax (VAT), while international and EU practice is excluding VAT on these services, as the fee is already considered to be a tax.¹¹

The downside of this scheme is that waste companies would be responsible for reaching new agreements with households and collecting fees, which creates the risk of reduced collection rates. This could be mitigated by municipalities taking charge of collecting fees from households in the form of taxes, and the government exempting the fees from VAT, leaving the companies to collect fees based on individual agreements with commercial or institutional entities. This could result in significant savings and reduce the subsidies that some municipalities currently pay for waste management.

Green Public Procurement

Green public procurement is a procedure implemented by contracting authorities when they strive to procure goods, services, and works that have a reduced environmental impact throughout their life cycle, in contrast to similar goods, services, or works that would otherwise be procured.¹²

The total value of contracts awarded in public procurement procedures in BiH in 2019 was 1.42 billion EUR, or 8.1 percent of the nominal gross domestic product (GDP).¹³ The legislation on public procurement in BiH does not include precisely defined rules for attaching importance to environmental aspects. It still provides sufficient opportunities to include green criteria in procedures. Inter alia, contracting authorities have the following options:

- Specify green criteria as a condition for the pre-qualification of potential bidders;
- Define technical specifications and apply green criteria for environmentally suitable goods, services, and works;
- Specify green criteria for contract awards by giving preference to bidders who offer environmentally sound solutions;
- Stipulate green criteria in contract provisions concerning the methods for procuring goods, services, and works;
- Approach specific procurement exercises in an alternative or green way.

An essential factor in the implementation of green public procurement is the commitment of the contracting authority as well as their sincere intention to adopt a greener approach not only in the procurement process, but also in their general behavior and attitude toward the environment. Some of the instruments that may be used in public procurement include:

- A standard ISO (International Organization for Standardization) 14000 or Eco-Management and Audit Scheme (EMAS) certificate as a condition for qualification;
- Statements that bidders will implement measures of environmental management throughout the duration of their contract;
- Commitments to implement measures for the disposal of waste generated in the process of providing services that are in line with applicable waste management law;
- Requirements for the bidder to employ an expert in ecology, environmental engineering, or a similar field of studies;
- Certificates confirming that marked goods comply with environmental specifications and norms;

11 Kremena M. Ionkova, Municipal Solid Waste Management Sector Review: Strategic Directions and Investment Planning up to 2025 – Part A: Federation Bosnia and Herzegovina (English), World Bank Group, Washington, D.C., 2018, 4, 58, <http://documents.worldbank.org/curated/en/604171562139744120/Municipal-Solid-Waste-Management-Sector-Review-Strategic-Directions-and-Investment-Planning-up-to-2025-Part-A-Federation-Bosnia-and-Herzegovina> (accessed December 23, 2022).

12 European Commission, Public Procurement for a Better Environment, COM(2008) 400 final, July 2008, 4, <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2008:0400:FIN:EN:PDF> (accessed December 23, 2022).

13 Public Procurement Agency of Bosnia and Herzegovina, Annual Report on Awarded Contracts in Public Procurement Procedures in 2019, May 2020, 21, <https://cms-ajn.azureedge.net/documents/f4583bd0-4569-4324-8443-4151aa8a726e.pdf> (accessed January 16, 2023).

- A list of similar environmentally-aware contracts previously executed, with the confirmation of their implementation issued by a third party;
- Special obligations to mitigate environmental impacts such as the use of recycled packaging.¹⁴

When selecting goods and services most suitable for the implementation of green criteria, the European Commission and most member countries took into consideration the following factors:

- The choice of goods and services that have a high environmental impact during their lifecycle;
- A focus on high-consumption financial sectors;
- A focus on the areas that have the strongest market impact potential.

Awareness-Raising and Educational Programs

The development of the strategic and regulatory framework for CE should be accompanied by activities that encourage consumers to consume sustainably, especially if the market can offer sustainable alternatives at an affordable cost.

Awareness-raising activities that benefit CE must be adapted to different target groups. This should be preceded by surveys on the level of knowledge of CE and perceptions and views of consumers, companies, universities, and schools. Educational and awareness-raising programs may include the following:

- Awareness-raising campaigns in cooperation with governmental organizations, the civil sector, consumers, and companies;
- Introduction of CE into university curricula;
- Encouraging entrepreneurial and innovation skills, knowledge, and views on CE.

Universities and innovation centers play a critical role in disseminating knowledge about CE. Aside from the need to teach CE in their curricula, universities, and the broader innovation community may contribute to other areas of research, knowledge-sharing, and encouraging eco-friendly solutions and businesses. Technical universities have laboratories where students and professors can research the reuse of materials and generally have capacities to develop innovative CE models. The lack of cooperation across sectors – as well as between the private and public sectors – regarding the promotion and testing of innovative business models is a challenge that needs to be addressed.

Companies, particularly small- and medium-sized enterprises (SMEs), need to be encouraged to adopt resource efficiency measures. Achieving this would require awareness among SMEs on how resource efficiency brings return on small investments. This would be the first decisive step for BiH and other countries in the region toward transitioning to a greener economy.¹⁵

Barriers to Overcome

The transition toward CE is hampered by the linear environment of legislation, markets, investment tools, and practices. This environment prevents businesses from reflecting on the negative externalities of their prices.

Barriers to transition toward circular economies can be classified as internal, such as decisions on business models, priorities, or operational culture, and external, such as public policies, prices or incentives offered by the government, and requirements, practices, or activities of buyers or organizations in the supply chain. As each internal decision is made within a context of external factors, synergies can unfold between various barriers.¹⁶

14 Dražen Vidaković, Recommendations to Mainstream Green Criteria in Public Procurement in Bosnia and Herzegovina, United Nations Development Programme (UNDP) in BiH, November 2021, 8-9, <https://www.undp.org/sites/g/files/zskgke326/files/migration/ba/green-public-procurement-recommendations-bosnia-herzegovina-ENG.pdf> (accessed December 23, 2022).

15 OECD et al., SME Policy Index: Western Balkans and Turkey 2019: Assessing the Implementation of the Small Business Act for Europe, SME Policy Index, OECD Publishing, Paris, Chapter 14, 526-528, <https://doi.org/10.1787/g2g9fa9a-en> (accessed December 23, 2022).

16 Paul Ekins, Teresa Domenech, Paul Drummond, Raimund Bleischwitz, Nick Hughes, and Lorenzo Lotti, The Circular Economy: What, Why, How and Where, UCL Institute for Sustainable Resources, University College London, 2019, 38–39, <http://t4.oecd.org/cfe/regionaldevelopment/Ekins-2019-Circular-Economy-What-Why-How-Where.pdf> (accessed December 23, 2022).

Regulatory Barriers

BiH needs to ensure a coordinated and harmonized countrywide approach to resolving waste management issues, and this is of particular importance in the context of CE. This needs to be reflected both in the country's legislative framework as well as in its strategic approach. Legislation needs to be aligned with the directive on landfills, and all landfills that do not meet the specified criteria must be closed or rehabilitated.¹⁷

In comparison to other WB countries, BiH faces unique challenges in this regard, as it does not have state-level legislation on environmental protection that would provide a basis for the harmonized development of other laws on issues such as waste management.

CE can rarely be found in laws and strategic documents, but certain principles related to CE are integrated all the same. Still, most current strategic documents do not explicitly address CE-related issues. Future sectoral strategies are expected to place more emphasis on CE.

One important cornerstone for developing CE-related policies is the availability of data on CE relevance, which should be collected at a local level and shared with higher systemic levels. A critical step in this direction would be the establishment of waste management systems. In FBiH, the Environmental Protection Fund launched this system in February 2021; it is currently being established in RS. This will also enhance transparency along the entire supply chain and provide a sound basis for decision-makers when designing CE-related policies.

Financial Barriers: Minimizing the Expenses

Financial cost-effectiveness and sustainability are essential preconditions for the CE model. In this

context, barriers are often caused by external factors, such as market conditions, tax policies, systems of incentives, and access to finances.

Research conducted by the Circular Economy Balkan Beacons (CEBB) identified key financial barriers to the implementation of CE in BiH as follows:

- High initial investment costs;
- Poor consideration for negative externalities;
- Short-term agendas favored in corporate governance;
- Cost inefficiency of recycled materials compared to raw materials;
- High management and planning costs.¹⁸

Frequently, high initial investments in new technologies or the reorganization of operations make circular economies appear not to be cost-effective in the short term. If the introduced CE measures directly result in reduced costs, they become incentives. However, if they lead to increased operational costs, then they become prohibitive in the view of a profit-oriented company.¹⁹

The introduction of operations that comply with CE principles often requires a change of technology and process organization; both may entail high costs. Large sections of regional economies do not rely on the latest technological solutions, primarily due to high investment costs compared to low purchasing power.

In many countries, a lack of financial incentives has been recognized as the main barrier to CE. Currently, financial instruments supporting CE in BiH occur only in rare cases, while hundreds of millions of euros worth of direct and indirect subsidies are afforded for coal-based technologies.²⁰ If strategic documents do not explicitly entail CE

17 Directorate-General for Neighbourhood and Enlargement Negotiations, European Commission, Bosnia and Herzegovina Report 2021, October 2021, 103, https://neighbourhood-enlargement.ec.europa.eu/bosnia-and-herzegovina-report-2021_en (accessed December 23, 2022).

18 Circular Economy Balkan Beacons, Cirekon & REIC, 2021.

19 Ibid 16, 45.

20 Energy Community Secretariat, Rocking the Boat: What is Keeping the Energy Community's Coal Sector Afloat? – Analysis of Direct and Selected Hidden Subsidies to Coal Electricity Production in the Energy Community Contracting Parties, September 2019, https://www.energy-community.org/dam/jcr:23503de3-fccd-48f8-a469-c633e9ac5232/EnC_Coal_Study_092019.pdf (accessed December 23, 2022).

priorities, the action plans will not include circular activities, and it will not be possible to allocate more funds for these incentives.

Financing business operations with loans, including those related to CE, is more challenging in BiH than in the EU or other countries in the WB region. In addition to paying higher interest rates, companies in BiH also must face the rigidities of banking and financial systems, with alternative sources of financing either unavailable or limited. The stock exchange is available to fund only a negligible number of business ventures. Lending and financing institutions do not recognize CE investments as a particular category to be financed.

Banks in the wider region are increasingly taking environmental, social, and governance criteria into consideration when making investment decisions. Funds allocated to the EU economic investment plan for the Western Balkans will improve access to finances for companies proposing CE projects – more affordable financing opportunities are to be expected. Such loans often include additional benefits in the form of grants or the provision of technical assistance.

In BiH, there is a limited number of financial mechanisms that support the transition to CE. Among such means are fees payable for non-compliance with recycling and reuse targets for specific categories of waste.

Another problem on the path toward establishing a CE system is the underdeveloped recycling industry that is constrained by the lack of incentives on the one hand, and by a relatively small market for primary materials on the other.²¹

Global market prices for input materials often fluctuate, particularly amidst increasingly frequent global disturbances that affect supply chains. The

WB markets are particularly vulnerable due to their small size and high dependence on international trade. The average industrial producer price index recorded drastic cost spikes, which particularly affects import-intensive economies. On the other hand, increasing prices of imported materials have a positive effect on the cost competitiveness of secondary and domestic material.

Technological Barriers

Technological barriers are related to the life cycle of materials and products, ranging from research and development, to design, production, and recovery. Technologies may be developed internally, within the company, or externally, through publicly financed research and development programs. To apply new technologies, BiH companies also require the transfer of know-how. In this respect, the nascent entrepreneurial tradition in and around BiH, combined with complex transition processes within all WB countries, as well as low levels of foreign direct investments, are all additional obstacles.²²

Typically, the process of developing new products and implementing new technologies, e.g., when developing a new smartphone, rarely consider the need for the simultaneous development of technological and organizational capacities for ecological design and product development following CE principles. These should include product longevity and durability; modularity, standardization and compatibility; the possibility to disassemble, recycle and reuse products; the reduction of material quantities; and use of sustainable technologies. Existing technologies are old and poorly adapted, thus making the implementation of CE principles difficult. In this context, product complexity can prevent the separation of materials, which makes recycling difficult.

21 BiH Environmental Strategy and Action Plan – ESAP 2030+, Waste Management in Bosnia and Herzegovina: a Gender Equality, Social Equity and Poverty Reduction Lens, August 2021, 2, https://esap.ba/wp-content/uploads/2022/04/GESEP_Waste-DB_ENG_WEB.pdf (accessed December 23, 2022).

22 Aida Soko, The Role of Behavioral Economics in B&H; Does Remittances and Foreign Aid Have Adverse Effect on Economic Development?, International Burch University, Sarajevo, IBU Repository, 2016, <https://omeka.ibu.edu.ba/items/show/735> (accessed December 23, 2022).

Consumer-Related Barriers

Consumer-related barriers are perceptions and customs of end-users that undermine or inhibit the implementation of circular business models.

Examples of such barriers can be found in deeply rooted cultural and societal norms, low levels of awareness among citizens for the importance of sorting waste, and the fact that, in most cases, consumers prefer first-hand products. The promotion of pro-environmental behavior in daily life is critical for CE. Apart from awareness, the willingness to buy green products also depends on the availability of funding, time, and opportunity.²³

The transition of regional economies to CE principles is also met with barriers in the form of deeply rooted societal norms, as consumers avoid sharing products and services and prefer to have their own. This is the primary barrier to models such as the sharing economy or product-as-a-service. An illustrative example of this is car ownership. In 2019, the number of registered vehicles in BiH increased by 10.5 percent in comparison to 2018.²⁴ This trend adversely impacts efforts to expand car-sharing services, which might bring significant economic advantages, since cars in the EU are parked 92 percent of the time on average.²⁵

Another barrier is that, in keeping with the principles and habits of consumer societies, the population in WB prefers to buy new and avoid second-hand, repaired, or refurbished products.

The separate collection of different kinds of waste is a crucial prerequisite for mass recycling and public participation in the transition to CE. Statistical data shows that more than 90 percent of municipal waste generated in 2020 in BiH was dumped in a landfill. The existing fees-for-waste

system, which charges a certain amount per square meter of waste, significantly disincentivizes waste separation at the place of origin.

Organizational Barriers and the Role of the Business Community

Ingenuity in the private sector is the only way to achieve the circular products, materials, and solutions needed to achieve a zero-waste economy.

Yet companies still face organizational barriers, and the incentive to overcome these barriers is primarily rooted in shifting external conditions that foster CE development.²⁶ These external conditions include profit opportunities and the need to cut costs or comply with CE regulations. Change in external factors can shift the opportunities and the benefits considered and enhance a company's potential.

A CEBB survey showed that around 70 percent of representatives interviewed in small and medium-sized companies (SMEs) believed they could not implement change and benefit from the opportunities that CE offered. Over 40 percent of respondents stated that reasons for this included a long return timeframe and unclear market benefits.²⁷

The lack of long-term planning in small companies often comes to the detriment of a corporate vision, as small companies tend to focus operations on the current market situation and use their available resources to respond to client demands. Long-term planning requires monitoring trends and recognizing the need to change and adapt toward more circular strategies and business models. Therefore, SMEs need encouragement to adopt steps toward resource efficiency.

23 Svetlana Ratner, Inna Lazanyuk, Svetlana Revinova, and Konstantin Gomonov, Barriers of Consumer Behavior for the Development of the Circular Economy: Empirical Evidence from Russia, *Applied Sciences* 11, no. 1, 2021, 46, <https://doi.org/10.3390/app11010046>.

24 Information on Registered Motor Vehicles in BiH from January to December 2019, Bosnia and Herzegovina Auto-Moto Club (BIHAMK), March 2020, https://bihamk.ba/assets/upload/Broj_registrovanih_motornih_vozi.pdf (accessed December 23, 2022).

25 Ellen MacArthur Foundation, McKinsey Center for Business and Environment, Growth Within: A Circular Economy Vision for a Competitive Europe, 2015, https://emf.thirdlight.com/file/24/_A-BkCs_h7gRYB_Am9L_JfbYWF/Growth%20within%3A%20a%20circular%20economy%20vision%20for%20a%20competitive%20Europe.pdf (accessed December 23, 2022).

26 Ibid.

27 Ibid 18

Nevertheless, numerous companies in the region include some elements of circularity in their operations to a limited extent. Centre for Policy and Governance identified 72 companies that implemented some form of circular activities, along with 62 examples of circular activities in the region – mainly in Serbia and Croatia – that are not implemented in BiH.²⁸

Most companies studied possess a basic knowledge of CE, although it is noticeable that there is a lack of understanding of the different techniques used for waste treatment. The collection and transport of secondary materials are often misidentified as recycling and thus as part of CE. In most cases, however, CE is linked to sustainable development, waste reduction, product recycling, closed-loop systems, limiting resource input, reuse cycles, competitiveness, positive social influence, product design, waste management, product repair, environment protection, and much more.

Concerning companies in BiH, CE is often implemented as a separate activity – very few companies operate predominantly based on CE principles. There are multiple reasons for this, and the study pointed at some of them, including:

- Lack of financing;
- Misunderstanding of CE as waste management;
- Insufficient internal CE capacities;
- Complex and incompatible administrative procedures;
- Lack of institutional support to improve CE-related legislation;
- Problems related to the supply of input materials;
- Complex import procedures;
- Lacking CE support systems and financial mechanisms.

None of the analyzed companies implemented a fully-fledged circular model of operation, which is quite understandable considering the barriers they face and the fact that CE is in its very early stages of development in the region. Two out of three identified companies use the resource recovery model; other models are less represented.

It is hard to identify companies implementing CE activities, as companies tend to publish little information regarding their CE activities. This, among other things, confirms the belief that most companies in BiH implement CE sporadically at best.

Drivers of CE activities within companies are different. Some companies have recognized CE as a primary business model, while others use CE to complement their core business. Still others, given their close links with international markets and owners, generally implement more advanced models, including circular models. In most cases, CE activities were initiated by top management.

The essential tools companies use to implement CE models include resource efficiency, planned sustainability, modular products, life cycle assessment (LCA), and ecodesign. Companies pointed to several external factors that might improve the implementation of CE systems, such as technical assistance in analyzing resource efficiency, innovating processes and services, as well as training and development.

Keeping Products in Circulation

Product life extension is one of five business models that serve as a basis for transformation toward CE – the use of products for their intended purpose is extended by adjusting their design, repairing them, renewing their components, upgrading and selling them in the secondary market.²⁹

The extended use of products may refer to the period of initial use and beyond. Keeping the prod-

28 Lejla Dragnić, Vedad Suljić, Branko Zlokapa, Adis Muhović, and Sabina Krupić i Stela Pilav, Case Study Implementation of Circular Economy Business Models in BiH, Centre for Policy and Governance, Sarajevo, April 2022, <http://cpu.org.ba/publications/csce/> (accessed December 23, 2022).

29 Peter Lacy, Jessica Long, and Wesley Spindler, The Circular Economy Handbook: Realizing the Circular Advantage, Palgrave Macmillan, Springer Nature Limited, London, 2020.

uct in longer use can prolong the time between two purchases and allow the product to be sold to a further user on the secondary market. This business model includes a larger number of interventions, from repairs, adjustments, and improvements between sale and resale. Some of these activities can be seen as a separate business model. Implementing this business model does not require a shift in companies' business models, but an expansion of business capacities – primarily concerning product design – and distribution channels, as well as the creation of new revenue flows, for example by offering repair and resale services.³⁰

This model makes companies focus on the customers' needs and helps engender greater customer loyalty. It favors the use of more durable and higher-quality materials to extend products' lifespans and employs a modular design to enable future product upgrades. This model is becoming more and more widespread in various industries, primarily electrical and electronic, as well as in the fashion and furniture industry.

The provision of services instead of products is one of the key recommendations for CE, and the service sector plays an important role in moving away from linear production systems. The relevant literature often proposes that companies with roots in linear production systems must look for new business models focusing on services to complete the resource circle. There is a potential for small, service-oriented companies to offer services that may contribute to circularity, both to companies that receive technical support as well as to companies that rely on product manufacturing.³¹

Conclusion

There is a lot of work to be done in all fields of society in the Western Balkans, which requires funds that are hard to come by. Our economies already struggle to produce enough to finance the real needs and many public "functions" that are a by-product of ill political consensus. Furthermore, priorities for stakeholders in developing econo-

mies are not the same as in developed countries – as budgetary constraints are more common in private and public spending in WB upper middle-income economies, there is not much room to think about the hidden cost.

In addition to the importance of the price tag in daily consumption, the difference in knowledge about the importance of sustainability, of production and consumption, is also noticeable. Apart from that, it may also be about the sense of entitlement.

Citizens and businesses in the Western Balkans may seem short-sighted, but we have been resourceful throughout our modern history. What in the western world is now called circular economy, we in the (South-)East know as "the way our parents used to do it when they had to." As a market economy and liberalized trade were not given a chance here until the 1990s, scarcity was all-present. Not out of will or knowledge, but out of necessity, one didn't throw anything away, didn't buy what could be borrowed, and would try to use every moving asset and real estate to its full potential. Disposable and single-use packaging was as rare as glass deposit bottles are today.

Being "linear" is a new occurrence here. As with everything new, linearity symbolizes modernity and abundance for part of the population, and some may be uninterested in "greening" their behavior. Why would they? Are they poor? Westerners enjoyed this convenient lifestyle far longer, and it didn't destroy them.

As the result of these constant shortages – lack of cash, information, and self-reflection – the population and decision-makers of the Western Balkans have consistently refused to seize the opportunity for economic and political reforms. If there is anything to learn from our short conflict-free past, but also from the developments in assembling the new parliamentary majorities in BiH and creation of coalition "reform priorities," it is that the environ-

³⁰ Ibid 28, 14.

³¹ Ibid 4, 24.

ment will most probably not be the top mid-term priority. On the contrary, in the WB, both left and right think brown and are quick to come up with excuses.

The U.S. right says the Green Deal is a leftist agenda to introduce big government under the pretext of a fictitious environmental crisis. In the WB where big government is, unfortunately, still mostly looked upon favorably, the right populist may take a different approach, and blame the developed West for changing the rules for everyone in order to fix the problem developed industries caused. Conveniently, just when we started to develop and catch-up.

These and similar excuses make it easy to skip the hard work and difficult decisions that need to be made. The European Green Deal will bring groundbreaking changes for the region. With the current political environment in the WB and slow governments, one can only fear dire economic consequences and vast business extinction. Survival of the fittest – businesses and municipalities who act now and prepare for tomorrow.

List of Abbreviations

BAM	Bosnia and Herzegovina convertible mark (Bosnian currency)	PC	Public Company
BiH	Bosnia and Herzegovina	RS	Republic of Serbia
CE	Circular Economy	SEE	South East Europe
CEBB	Circular Economy Balkan Beacons	SME	Small- and Medium-Sized Enterprises
CPI	Consumer Price Index	UN	United Nations
CSO	Civil Society Organization	VAT	Value-Added Tax
EBRD	European Bank for Reconstruction and Development	WBIF	Western Balkan Investment Framework
EIA	Environmental Impact Assessment	WB	Western Balkans
EIP	European Commission's Economic and Investment Plan		
EMAS	Eco-Management and Audit Scheme		
EMS	Environmental Management System		
EPR	Extended Producer Responsibility		
EPS	Elektroprivreda Srbije		
ESG	Environmental, Social, and Governance		
ETS	Emissions Trading System		
EU	European Union		
EU ETS	EU Emissions Trading System		
FADN	Farm Accountancy Data Network		
FAO	Food and Agriculture Organization		
FBiH	Federation of Bosnia and Herzegovina		
GAWB	Green Agenda for the Western Balkans		
GDP	Gross Domestic Product		
GVA	Gross Value Added		
HBIS	Hebei Iron and Steel		
ISO	International Organization for Standardization		
IPCC	Intergovernmental Panel on Climate Change		
LCA	Life Cycle Assessment		
IPA	Pre-Accession Assistance		
LNG	Liquefied Natural Gas		
NDC	Nationally Determined Contribution		
NERP	National Emission Reduction Plan		
NGO	Non-Governmental Organization		
OECD	European Bank for Reconstruction and Development		
PAYT	"Pay As You Throw"		

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