



Study and road map for **green** business in Montenegro

Summary

Subject and goal of research

“The study on policies and incentives for green business in Montenegro with a focus on agriculture, energy and tourism, with a roadmap for future climate action in these areas” is part of the major UNDP project **“Growth of green business in Montenegro” (2018–2021)** whose aims are to promote low-carbon business initiatives, create green jobs and decarbonize the Montenegrin economy (low-carbon development).

The study shows that we are facing a **triple crisis**: an acute health and socio-economic crisis that has temporarily shut down most economic sectors, as well as a crisis with deeper roots – a chronic crisis of globalization and economic transformation. The latter has been feeding climate change and income inequality and is rapidly leading to massive unemployment. We need to learn and rethink the way to manage growing risks, as individuals and collectively, as the public and private sectors, globally, nationally and locally. That is why the main message of the research is **resilience and preparedness**, how to make economies and priority sectors more resilient and ready for all climate and economic challenges in the future.

That is why Europe’s response must be unique and comprehensive, based on strengthened country solidarity, in order to avoid the growth of dangerous extremisms that call into question fundamental European values and a common future within the European Union.

Therefore, Montenegro, as a European country on the path to full membership of the European Union, is making **its own low-carbon development strategy**.

This study and the identified measures are only a **contribution** to this development commitment.

Structure

The study covers **four key components**:

1. Analysis of the European Green Deal and the Action Plan for Sustainable Growth Financing – a strategy that Montenegro is striving for;
2. Financing of green business with an emphasis on the possibility of developing a green bond market in Montenegro;
3. Analysis of the strategic and legislative framework for sustainable development and climate actions in Montenegro;
 - a. Development framework and European context
 - b. IDF and green business in Montenegro, the path to green credit lines and new financial incentives
 - c. Development projections and constraints
 - d. The COVID-19 pandemic and possible measures – how to achieve a more prepared and resilient economy

- e. Agriculture – a review of the development concept, incentives and key challenges related to climate action
 - f. Energy – a review of the development concept, incentive measures, climate and energy goals and a new development concept
 - g. Tourism – basic indicators and a review of the development concept, incentive measures, and the path to low-carbon tourism in the light of new challenges
4. A roadmap for policies and incentives for green business in Montenegro (horizontal actions, energy, other sectors, agriculture and forestry, and tourism).

European Green Deal

The European Green Deal (2019) is a new development strategy that should be accepted by Montenegro as well. Its goal is the transformation into a fairer and more prosperous society, with a modern, resource-efficient and competitive economy, with reduced CO₂ emissions and where economic growth is decoupled from the use of resources. The goal of this strategy is to protect, but also to encourage the human, social, natural and economic capital of Montenegro, and to help achieve the UN sustainable development goals in the country.

The European Green Deal covers:

1. Bigger EU climate ambitions for 2030 and 2050 with the implementation of the new European Climate Law, which establishes Europe's climate neutrality by 2050
 2. Providing clean, affordable and safe energy
 3. Industrial strategy for a clean and circular economy
 4. Sustainable and smart mobility
 5. Greening of the Common Agricultural Policy through the "Farm to Fork" strategy
 6. Conservation and protection of biodiversity
 7. Achievement of a zero-pollution ambition for a non-toxic environment (Chemical Strategy for Sustainability)
 8. Incorporating sustainability into all EU policies
 9. The EU as a global leader and strategic actor in conducting international climate negotiations, including the promotion of the European Green Deal to the international community, but also to the enlargement countries (creation of a green investment programme, the Green Agenda for the Western Balkans)
 10. Working together – the European Climate Agreement and Eighth Environmental Action Programme.
- ▷ **Montenegro** should create its development framework by 2050 according to the European framework given through the European Green Plan.

EU Taxonomy of Sustainable Economic Activities

The EU adopted the **Regulation on Taxonomy** (June 2020) – the Taxonomy is the classification of sustainable activities in the EU – 70 groups of economic activities in the NACE classification, with a significant effect on reducing greenhouse gas emissions, with a proposal of the principles and benchmarks (reference values) to be applied in the preparation and approval of new projects (**Annex 1**). Montenegro has harmonized its legal framework and capacities for the application of the EU taxonomy for sustainable activities and to monitor the further development of the evaluation of projects, programmes and other activities on this basis.

- ▷ **Montenegro** needs to align its future investment decisions on green business with this taxonomy.

Measures and instruments for financing sustainable growth

The **Sustainable Growth Financing Plan (2018)** has become an integral part of the European Green Plan and it includes three clear goals: the Action Plan has set three clear goals: redirecting capital flows towards **sustainable investments** in order to achieve sustainable and inclusive growth; **managing the financial risks** arising from climate change, resource depletion, environmental destruction and social issues; (the inclusion of sustainability in risk management), and **encouraging transparency and long-term** financial and economic activities.

The European Investment Bank (EIB) also has a key role to play in financing the transition to a carbon-neutral and sustainable economy. The EIB engages its own resources and support from the EU budget under various programmes and instruments for financing climate policy measures and environmental investments inside and outside the EU. Almost 30% of the EIB's operations in 2018 related to climate action, including support for investments to mitigate and adapt to climate change, and investment in low-carbon, climate-resilient growth/investment. The EIB's role in financing a sustainable transition will be further strengthened as the EIB becomes the EU's climate bank. The EIB will gradually increase its share of financing for climate action and environmental sustainability, in order to reach a level of 50% by 2025. A similar policy is being pursued by the EBRD, the CEB and other development banks and development agencies in EU member states. The Montenegrin economy, its banks and the IDF itself must adapt to this long-term trend.

- ▶ Montenegro should develop and implement the **concept of green finance** as much as possible, taking actions from the EU plan for financing sustainable growth.
- ▶ With the mentioned improvements and the **offer of green credit lines**, the following would be obtained:
 - ▶ a strong financial instrument for strengthening sustainable, low-carbon development in Montenegro, while achieving both economic and environmental goals and combating the negative effects of climate change (achieving climate and energy goals in three key aspects: reducing CO₂ emissions, the share of RES and EE growth;
 - ▶ better insight into the potential of green growth in Montenegro, better records of green projects and disclosure of data on the green business of Montenegrin companies;
 - ▶ continuous education of all involved in the process of the realization of loans and grants;
 - ▶ strengthening Montenegrin institutions and the private sector in the sustainable financing of development;

Green bonds

One of the results of the project is to provide a comprehensive overview of the functioning of the green bond market globally both in the EU and in its ongoing development and specific sectors. At the same time, it is one of the possibilities for Montenegro to secure the missing funds through the issuing of green bond.

Green financing as a concept combines the area of finance (financial industry) and business (oriented towards economic growth) with environmental behaviour (improvement and protection of the environment). It is the intertwining of the financial sector, the environment and sustainable economic development that directs the business of financial institutions in the direction of creating green products and services.

Green bonds are debt instruments used to finance green projects that bring environmental benefits. A green bond differs from a regular bond in its obligation to use the funds raised to finance or refinance green projects, assets or business activities. Green bonds can be issued by public or private actors, in advance, to raise capital for projects or for refinancing purposes, by releasing capital and leading to increased lending. The Netherlands, France and Slovenia have very good experiences in this area.

- ▷ **Montenegro** should educate and motivate all the actors in the financial market towards joint operations in this area, because green bonds are one of the innovative ways to provide the missing funds for projects in the field of environmental protection;

Development framework and challenges of COVID-19

The project summarizes the strategic and legislative framework for sustainable development and climate action in Montenegro.

The transition to a more sustainable economy and society is a priority. This is also shown by the COVID-19 pandemic. It is very likely that in the future, the frequency and severity of declines in economic activity caused by health crises will be our reality, as will climate change, which shows an increasing trend. That is why the European Green Plan is our common European response to future development challenges.

The study shows that we are facing a **threefold crisis**: an acute health and socio-economic crisis that has temporarily closed down most economic sectors, as well as a crisis with deeper roots – a chronic crisis of globalization and economic transformation. The latter encourages climate change and income inequality, leading to high unemployment. We need to learn how to manage growing risks, as individuals and collectively, as the public and private sectors, globally, nationally and locally. That is why the main message of the research is **resilience and readiness**: how to make economies and priority sectors more resilient and more prepared for all climate and economic challenges in the future.

That is why Europe's response must be unique and comprehensive, based on strengthened solidarity between countries, in order to avoid the growth of dangerous extremisms that call into question fundamental European values and a common future within the European Union. Therefore, as stated, Montenegro, as a European country on the path to full membership in the European Union, is making its own **strategy of low-carbon development**. This study and the identified measures are only a **contribution to this development commitment**.

The economic and social measures are analysed and future action is proposed, which view economic recovery, at the same time, as a challenge and as an opportunity for a transition to a greener economy, which will

be more resilient and ready for growing challenges.

Investment and Development Fund of Montenegro and climate action

The role of the IDF in encouraging the greening of credit lines has been especially analysed. During 10 years of work (2010–2019), the **Investment and Development Fund of Montenegro** has been significantly achieving its basic activity of stimulating economic growth and development in Montenegro, by placing over €1 billion of financial resources in priority economic sectors, in line with the defined development priorities of the country. Credit lines cover a large number of target groups, which satisfies the need for dispersion of loans and incentive measures for different types of users.

- Starting from the fact that loan beneficiaries decide to apply primarily on the basis of **incentive measures and achieving the financial effects of the investment project** (return on investment based on proposed studies of justification of investment in a particular economic activity) – in the coming period it is necessary to **gradually introduce incentive measures, strengthening those economic activities that, in addition to the economic goals, also meet the environmental and social development goals** – to protect the environment, reduce GHG emissions, increase energy efficiency, strengthen renewable energy sources, protect water resources and preserve the existing ecosystem. Therefore, the IDF should introduce new programmes and incentive measures for subsidies for loans based on the achievement of climate and energy goals (payment based on effects).
- **There is significant potential for green lending to IDFs in priority sectors** (identified groups of agricultural products with the least environmental impact, with higher employability, competitiveness and export opportunities, and potential for improving value chains; within the existing Programme for Lending Projects for Environmental Protection, Energy Efficiency and RES, there is also room for expanding the range of credit support, especially in the field of energy efficiency for the SME sector and entrepreneurs, in which we also include the tourist sector).
- **The IDF should gradually adjust its credit policy to international, especially European trends, in terms of financing climate action.** By introducing green credit lines, the IDF will be able to make available significant financial resources for Montenegrin entrepreneurs and the SME sector from the international financial market.

Environmental Protection Fund

The Eco Fund started operating in March 2020. The main activity of the Eco Fund is financing the preparation, implementation and development of programmes, projects and similar activities in the field of the preservation, sustainable use, protection and improvement of the environment, energy efficiency and the use of renewable energy sources at the national and local levels.

The beneficiaries of the Eco Fund funds can be: companies and other legal and natural persons registered in accordance with the law, local self-government, state administration bodies and other independent legal entities financed from the state budget, non-profit organizations and individuals. The Eco Fund funds can be allocated to beneficiaries in various forms: loans, subsidies, grants and donations. When allocating these funds, the Eco Fund conducts the procedure of assessing the feasibility/justification of investments, i.e. the procedure of determining the financial, economic, technical and personnel capacity of beneficiaries, as

well as the expected positive effects of funds intended to be invested in projects, programmes and similar activities in the areas of environmental protection, energy efficiency and the use of renewable energy sources.

- ▷ The Environmental Protection Fund (Eco Fund) should develop its own development concept and activities in accordance with the best practices of similar organizations in the EU

Priority sectors: agriculture, energy and tourism

The priority sectors are summarized in this study, with a focus on incentives and future development challenges, in the context of climate action.

Roadmap for policies and incentives for green business in the agricultural, tourism and energy sectors in Montenegro

An overview of key measures to encourage climate actions in priority sectors.

CONTENT

SUMMARY	3
OVERVIEW OF TABLES, SCHEMES AND FIGURES.....	10
ACRONYMS.....	11
I. INTRODUCTION.....	13
1. APPROACH AND METHODOLOGY	15
2. TIMEFRAME	16
II. THE EUROPEAN GREEN DEAL	17
1. ANALYSIS OF THE EU ACTION PLAN FOR FINANCING SUSTAINABLE GROWTH AND PROPOSED ACTIVITIES	17
2. THE EUROPEAN GREEN DEAL	21
2.1. <i>Investment plan for the European Green Deal 2021–2030</i>	24
2.2. <i>EIB contribution to mobilization of other financial institutions</i>	25
3. THE EU TAXONOMY	27
3.1. <i>Next steps toward complete implementation of the EU Taxonomy on Green Activities and technical screening criteria</i>	33
3.2. <i>Montenegro, NACE classification and the EU Taxonomy</i>	33
4. THE EUROPEAN GREEN DEAL AND COVID-19: IMPLICATIONS FOR EU CLIMATE POLICY	34
III. GREEN BONDS.....	37
1. FINANCIAL STRATEGIES TO ACCELERATE GREEN GROWTH.....	37
2. ANALYSIS OF THE GREEN BOND MARKET AND AN OVERVIEW OF ITS FUNCTIONING, CURRENT DEVELOPMENT AND KEY BOTTLE-NECKS.....	39
2.1. <i>Trends in the green bond market</i>	42
2.2. <i>Analysis of the role of the public sector and the possibility of strengthening the green bond market by implementing specific measures in the public sector</i>	44
2.2.1. The Netherlands	44
2.2.2. Slovenia	47
2.2.3. Croatia	49
2.2.4. Serbia.....	51
3. OPPORTUNITIES FOR THE DEVELOPMENT OF THE GREEN BOND MARKET IN MONTENEGRO: APPROACH TO A ROADMAP.....	59

IV. STRATEGIC AND LEGISLATIVE FRAMEWORK FOR SUSTAINABLE DEVELOPMENT AND CLIMATE ACTION IN MONTENEGRO..... 63

1. NSSD VISION OF SUSTAINABLE DEVELOPMENT OF MONTENEGRO UNTIL 2030	63
2. RATIFICATION OF THE GLOBAL AGREEMENT ON CLIMATE CHANGE AND MONTENEGRO'S CONTRIBUTION TO REDUCING GREENHOUSE GAS EMISSIONS	65
3. NATIONAL STRATEGY ON CLIMATE CHANGE	69
4. DEVELOPMENT POLICY FRAMEWORK.....	71
5. SUSTAINABLE DEVELOPMENT AND THE EUROPEAN INTEGRATION	72
6. LEGISLATIVE FRAMEWORK AND POTENTIAL FOR STRENGTHENING GREEN BUSINESS	72
7. THE INVESTMENT AND DEVELOPMENT FUND OF MONTENEGRO JSC AND ITS ROLE IN PROMOTING GREEN BUSINESS IN MONTENEGRO	75
7.1. Programmes of the Investment and Development Fund of Montenegro	75
7.2. Priority investment sectors.....	77
7.3. Incentive measures	78
7.4. Development of green credit lines and performance-based payment mechanisms	78
8. MONTENEGRO: DEVELOPMENT PROJECTIONS	82
9. THE COVID-19 PANDEMIC AS A NEW FRAMEWORK OF ECONOMIC FUNCTIONING AND CHANGE IN COUNTRY DEVELOPMENT PROJECTIONS.....	83
10. MONTENEGRO AND THE COVID-19 PANDEMIC: POLICY RESPONSE.....	86
11. THE COVID-19 PANDEMIC AND GREEN BUSINESS: POSSIBLE MEASURES	96

V. PRIORITY GREEN BUSINESS SECTORS IN MONTENEGRO..... 101

1. AGRICULTURE	103
1. A review of the strategic and legislative framework	103
1.1. Strategy for Development of Agriculture and Rural Areas of Montenegro 2015–2020	103
1.2. Legislative framework and alignment with the Common Agricultural Policy of the EU.....	106
1.3. Review “Development Directions of Montenegro 2018–2021”	108
2. Overview of basic indicators	109
3. Agricultural budget funds	112
3.1. Incentives and support for agri-ecological measures.....	115
4. Concluding assessments and recommendations for a roadmap for strengthening green business in the agricultural sector	118

4.1. Credit lines of the Investment and Development Fund of Montenegro	118
4.2. Further strengthening of the agricultural budget with higher allocations for agri-ecological measures.....	119
4.3. Biodiversity.....	120
4.4. Implementation of the Forest Development and Forestry Strategy with a focus on fire protection measures, biodiversity protection and other forest ecosystem services	121
2. ENERGY SECTOR.....	122
1. <i>Energy Balance of Montenegro</i>	123
1.1. Electrical energy.....	124
1.2. Petroleum and gas	126
1.3. Coal	127
2. <i>Strategic framework of the energy sector</i>	128
2.1. Review of the Energy Development Strategy of Montenegro until 2030.....	128
2.2. Review of “Development Directions of Montenegro 2018–2021”	130
2.3. Renewable energy sources/RES	130
2.2.4. Energy efficiency (EE)	132
2.2.5. Towards a new energy policy and a national energy and climate plan.....	132
3. <i>Energy and policy on climate change mitigation</i>	133
4. <i>Incentive measures in the energy sector in Montenegro</i>	137
4.1. Incentive measures for the use of renewable energy sources and highly efficient cogeneration	137
4.2. Incentive measures for efficient energy use	140
5. <i>Concluding assessments and recommendations for a roadmap for strengthening green business in the energy sector</i>	143
3. TOURISM	144
1. <i>Overview of basic indicators in the tourist sector</i>	144
2. <i>Strategic framework</i>	147
2.1. Review of the “Tourism Development Strategy until 2020”	147
2.2. Review of “Development Directions of Montenegro 2018–2021”	148
2.3. Review of the “Economic Reform Programme for Montenegro 2020–2022”	150
2.4. Review of the Rural Tourism Development Programme with Action Plan until 2021.....	151
3. <i>Development of low-carbon tourism in Montenegro</i>	153
4. <i>Incentive measures</i>	155

4.1. Incentive measures in the Law on Tourism and Hospitality.....	155
4.2. Programme of Incentive Measures in the Field of Tourism for 2019–2020	155
5. Prospects for the recovery of tourism in Europe and the plan of the European Commission (13 May 2020).....	157
6. Concluding assessments and recommendations for a roadmap for strengthening green business in the tourist sector	159
4. THE ENVIRONMENTAL PROTECTION FUND AND ITS ROLE IN THE IMPLEMENTATION OF INCENTIVE SCHEMES FOR GREEN BUSINESS	
161	

VI. CONCLUDING REMARKS AND RECOMMENDATIONS: ROADMAP..... 163

ANNEX 1. THE EU TAXONOMY 2020 – DESCRIPTION OF PRIORITY ECONOMIC ACTIVITIES WITH SIGNIFICANT CONTRIBUTIONS TO GHG EMISSIONS.....174

ANNEX 2. CONSULTED DOCUMENTS 194

Overview of tables, schemes and figures

Table 1. The Action Plan on financing sustainable growth – 10 measures.....	18
Table 2. The European Green Deal: key actions.....	22
Table 3. NACE sectors considered in the EU Taxonomy based on CO ₂ e emission	28
Table 4. Economic activities and its contribution to environmental objectives	29
Table 5. Sort of activities and criteria.....	30
Table 6. Technical screening criteria for a particular economic activity.....	31
Table 7. Summary of world output, projections (annual percentage change, real GDP growth rates)	35
Table 8. Ten biggest green bonds/loans – CBI, 2019	43
Table 9. Dutch State Treasury Agency: Green Bonds, DSL 0.50%, 15 January 2040	45
Table 10. State of the Netherlands Green Bond Report 2020.....	46
Table 11. Loan indebtedness vs. issuing municipal bonds.....	52
Table 12. The course of the municipal bond issuance project	56
Table 13. Municipal bonds on the financial market of Montenegro	61
Table 14. Total GHG emissions expressed in CO ₂ eq by sectors, 1990–2017 and WEM Scenario.....	66
Table 15. Recommended measures in the field of climate change strategy	69
Table 16. Investment and Development Fund of Montenegro's credit lines in 2020	75
Table 17. IDF MNE credit lines per economic activity/sector 2010–2019.....	77

Table 18. Factors of production – real growth rates and share in gross value added (GVA).....	82
Table 19. Projections of GDP growth rates of Montenegro, revised according to the current phase of the COVID-19 scenario.....	83
Table 20. Macroeconomic projections for Montenegro (MF, July 2020)	85
Table 21. First package of COVID-19 pandemic mitigation measures in Montenegro: 19 March 2020.....	87
Table 22. Second package of COVID-19 pandemic mitigation measures in Montenegro: 24 April 2020	89
Table 23. Structure of the agricultural budget in the period 2017–2020.....	113
Table 24. Structure of the financing sources of the agricultural budget in the period 2017–2020.....	113
Table 25. Structure of donations in the agricultural budget in the period 2017–2020	113
Table 26. IPARD II 2014–2020: Indicative budget and measures.....	114
Table 27. Incentive measures for organic production.....	116
Table 28. Incentive measures for the conservation of indigenous genetic resources	117
Table 29. Energy balance of Montenegro, energy production and consumption in the period 2018-2020 (TJ).....	123
Table 30. Energy balance of electric energy of Montenegro, 2014–2020 (GWh).....	124
Table 31. The structure of final electric energy consumption of Montenegro, 2014–2018 (GWh).....	125
Table 32. Energy balance of petroleum and gas, 2014–2020 (kilotons).....	126
Table 33. Structure of final oil and gas consumption of Montenegro, 2014–2018 (kilotons).....	126
Table 34. Energy balance of coal, 2014–2020 (kilotons)	127
Table 35. Structure of the final coal consumption in Montenegro, 2014–2018 (kilotons).....	127
Table 36. Horizontal EE measures (€).....	141
Table 37. EE measures in buildings (€).....	141
Table 38. EE measures for households (€)	142
Table 39. EE measures for the public sector (€).....	142
Table 40. EE measures for the commercial services sector and the industrial sector (€)	142
Table 41. EE measures for the transport sector (€).....	143
Table 42. EE measures on the energy supply side (€)	143
Table 43. Movement of the number of tourists and the number of overnight stays 2015–2019	145
Table 44. Movement of the number of passengers and the number of cruises by foreign ships in the period 2015–2019	145
Table 45. Movement of the number of arrivals of foreign vessels and the number of visitors in the category of nautical tourism in the period 2015–2019.....	145
Table 46. Balance of payments, revenues and expenditures from tourism, 2015–2019 (€ thousands)	147

Table 47. Incentive measures in the field of tourism for 2019/2020	156
Table 48. Current status of incentive measures in tourism for 2019/2020.....	156
Table 49. Roadmap for policies and incentives for green business in the sectors of agriculture, tourism and energy in Montenegro	164
Scheme 1. Sustainable Europe Investment Plan 2021–2030.....	25
Scheme 2. Definition of green finance.....	37
Scheme 3. Relationship between green financing and other related financing concepts	38
Scheme 4. Montenegro's development policy framework, which includes strategic horizontal documents in the field of sustainable development and climate change	71
Scheme 5. Montenegro: symmetrical action of the COVID-19 pandemic and policy response	86
Figure 1. Output gap forecasting (GDP_GAP): an alternative scenario for reducing energy-sector emissions	68

Acronyms

AFOLU	agriculture, forestry and other land use
AP	action plan
APEE	Energy Efficiency Action Plan
BAU	business as usual
BUR	Biennial Update Report
CEB	Council of Europe Development Bank
CC	climate change
CEDIS	Montenegrin Electricity Distribution System
CGES	Montenegrin Electricity Transmission System
COTEE	Montenegro Electricity Market Operator
DNSH	do no significant harm (assessment)
EIB	European Investment Bank
EBRD	European Bank for Reconstruction and Development
EEAP	Energy Efficiency Action Plan
EET	Environmental Eligibility Test)
EPCG	Electrical Power Industry of Montenegro
ETS	Emissions Trading Scheme
EU	European Union
EU TEG	EU Technical Expert Group

GEF	Global Environment Facility
GHG	greenhouse gas
GDP	gross domestic product
GVA	gross value added
GWh	gigawatt-hour
ha	hectare
HPP	hydroelectric power plant
IDF MNE	Investment Development Fund of Montenegro
INDC	intended nationally determined contribution
IPCC	Intergovernmental Panel on Climate Change
IRF CG	Investment Development Fund of Montenegro
ISO	International Standards Organization
ISO 14062-2: 2014	Greenhouse gases – Part 2: Specification with guidance at the project level for quantification, monitoring and reporting of greenhouse gas emission reductions or removal enhancements
ISO 14062-3: 2019	Greenhouse gases – Part 3: Specification with guidance for the verification and validation of greenhouse gas statements
JSC / AD	Joint Stock Company
km	kilometre
kt	kiloton
ktoe	kiloton of oil equivalent
LDN	land degradation neutrality
TNG	liquified petroleum gas
LULUCF	land use, land use change and forestry
MoE	Ministry of the Economy
MARD	Ministry of Agriculture and Rural Development
MONSTAT	Statistical Office of Montenegro
MRV	measurement, reporting and verification
MSDT	Ministry of Sustainable Development and Tourism
NACE	Statistical Classification of Economic Activities in the European Community (today's European Union)
NCCS	National Climate Change Strategy
NDC	Nationally Determined Contribution
NEAS	National Strategy with Action Plan for Transposition Implementation and Enforcement of the EU Acquis on the Environment and Climate Change 2016–2020
EE	energy efficiency
NŠS	National Forest Strategy
NSOR	The National Strategy of Sustainable Development to 2030
ODA	Official Development Assistance
OIE	renewable energy sources
PBPS	performance-based payment scheme
PDV	value-added tax

RES	renewable energy sources
SDG	Sustainable Development Goals
SEFF	sustainable energy financial facility
SNC	Second National Communication to the UNFCCC
SOC	soil organic carbon
SPP	solar power plant
TNA	technical needs assessment
TNC	Third National Communication to the UNFCCC
ToR	terms of reference
TPP	thermoelectric power plant
TWh	terawatt-hour
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change
UNIDO	United Nations Industrial Development Organization
VAT	value-added tax
WAM	with additional measures (scenario)
WeBSEFF	Western Balkans Sustainable Energy Financing Facility
WEM	with existing measures (scenario)
WOM	without measures (scenario)

I. INTRODUCTION

The United Nations Development Programme (UNDP), which acts as the executive agency of the Global Environment Facility (GEF)¹, is supporting the Government of Montenegro, especially the Ministry of Sustainable Development and Tourism (MSDT), to implement the project **“Growing Green Business in Montenegro”** (2018–2021). The project is being jointly funded by the GEF, MSDT, the Investment and Development Fund, and the municipalities. The aim of the project is to promote low-carbon business initiatives, create green jobs and decarbonize the Montenegrin economy (low-carbon development).

The overall goal of the project is to create a favourable business climate and conditions for private-sector investment in low-carbon and other environmentally friendly economic activities in Montenegro. The aim of the project is to promote private-sector investment in low-carbon and green jobs in Montenegro, i.e. to stimulate low-carbon economic growth and create green jobs.

The project uses a **combination of incentive policies** (development and implementation of a favourable policy framework, as well as the provision of business support services) and **financial instruments** that encourage investment/reduce the risk of losing access to finance² (improving access to finance for innovative green companies and partnerships, especially in agriculture, tourism and the energy sector).

The basic components of the project are:

1. Development of policies and services to support the business of green *start-ups* and small and medium-sized enterprises

- 1.1. Study and roadmap for policies and incentives for green enterprises in the sectors of agriculture, tourism and energy
- 1.2. Technical support for the Environmental Protection Fund (legal framework and provision of advisory services in order to diversify funding sources)
- 1.3. Establishment of the Green Business Incubator in Cetinje (support for entrepreneurs and training for skills development for green business)

2. Green business financing

- 2.1. Capacities created within the Investment and Development Fund for the implementation/ improvement of green financing of companies
- 2.2. Design and implementation of financing mechanism (performance-based payment scheme)

¹ **The Global Environmental Facility (GEF)** was established in 1991 under a joint programme run by UNDP, UNEP and the WB (the WB is a GEF trustee; all are implementing agencies; UNDP plays a primary role in capacity building and technical assistance, UNEP in technical and scientific analysis and the WB in managing investment projects). The GEF provides new and additional grants and concessional funding to meet the incremental costs (additional costs associated with transforming a project with national benefits into one with global environmental benefits) of measures to achieve **global environmental benefits** in six focus areas listed as: Biodiversity; Climate Change; International Waters; Land Degradation; the Ozone Layer; and Persistent Organic Pollutants (POPs) (Heggelund, G., Andresen, S. & Ying, S. (2005). Performance of the Global Environmental Facility (GEF) in China: Achievements and Challenges as Seen by the Chinese Int. Environ. Agreements 5, 323–348). Today, the GEF has a very complex organizational structure and 183 member countries, of which 32 countries are donors. Developing countries and countries with economies in transition are recipients of GEF support. During the period 1992–2019 the GEF invested over \$18.1 billion and leveraged \$94.2 billion in additional resources for more than 4,500 projects in 170 countries (GEF publication, https://www.thegef.org/sites/default/files/publications/gef_beyond_numbers_august_2019.pdf).

² Global financial institutions are increasingly severing or restricting business relationships with remittance transfer companies and smaller local banks in certain regions of the world – a practice called “risk reduction”. This practice puts them at risk of losing access to the global financial system itself. If the current trend continues, people and organizations in more volatile parts of the world or in small countries with limited financial markets could be completely cut off from access to regulated financial services. (<https://www.worldbank.org/en/topic/financialsector/brief/de-risking-in-the-financial-sector>)

3. Raising awareness of green business practices and financing opportunities³

This project is a component of the presented large project, subcomponent 1.1. which is amended to include the following aspects:

a) Basic research framework:

- ▶ Development of a **study and roadmap for policies and incentives for green business in the agricultural, tourism and energy sectors**, with the aim of reassessing incentive policies – and how to make them more cost-effective and enable them to benefit a wide range of the population in Montenegro with a focus on green growth.

a) Extended research framework:

- ▶ **Analysis of the expected negative impacts of the COVID-19 pandemic on the framework of incentive measures in Montenegro**, especially those support lines that could be considered a green incentive and whether the proposed recovery measures negatively affect these measures.
- ▶ **Relying on the EU's Green Deal, prepare a list of options and an assessment of applicability in the Montenegrin context**, which can be used as part of a green stimulus package that would combine spending in times of (health) crisis to restart the economy with environmental goals. Proposals could include, among other things, tax breaks by encouraging the use/procurement of clean energy equipment, requirements that save industries and businesses that are committed to reducing emissions and investing in green infrastructure.

All of the above becomes part of the activities within the UNDP project **“Development of Green Business in Montenegro”**, whose main goal is to promote private-sector investment in low-carbon and green businesses in Montenegro. Other important UNDP projects are “Development of Low-Carbon Tourism in Montenegro” and the UNFCCC GEF-funded reporting efforts.

In addition to the GEF, Montenegro has the support of the **Green Climate Fund (GCF)**⁴ which supports developing countries in their efforts to limit or reduce greenhouse gas emissions and to adapt to the negative impacts of climate change. Montenegro received the support of the GCF for the implementation of the so-called the first readiness project **“Development of Montenegro's capacity for effective engagement with the Green Climate Fund”**, with a focus on building the technical and coordination capacities of the National Contact Point for engagement with the GCF and the development of the State Programme. Also, the second proposal of the project **“Development of Montenegro's capacity for efficient engagement with the Green Climate Fund, which focuses on low-carbon mobilization of the private sector”** was submitted to the GCF. This project proposal⁵ is primarily aimed at encouraging private sector engagement in the adoption and use of low-carbon (mitigation) initiatives. Montenegro also requested GCF funding for the development of a National Adjustment Plan (NAP) with UNDP as a project partner. The NAP proposal aims

³ <https://www.me.undp.org/content/montenegro/en/home/projects/GreenJobs.html>.

⁴ The Green Climate Fund (GCF) is the world's largest dedicated fund helping developing countries reduce their greenhouse gas emissions and enhance their ability to respond to climate change. It was set up by the United Nations Framework Convention on Climate Change (UNFCCC) in 2010 and is based in the city of Incheon, South Korea. The GCF has a crucial role in serving the Paris Agreement, supporting the goal of keeping average global temperature rise well below 2°C. It does this by channelling climate finance to developing countries, which have joined other nations in committing to climate action. The GCF launched its initial resource mobilization in 2014, and rapidly gathered pledges worth \$10.3 billion. The GCF's activities are aligned with the priorities of developing countries through the principle of country ownership, and the Fund has established a direct access modality so that national and sub-national organizations can receive funding directly, rather than only via international intermediaries (<https://www.greenclimate.fund/about>).

⁵ According to the Ministry of Sustainable Development and Tourism, the proposal for this second GEF project is in the approval procedure.

to improve medium- and long-term adaptation planning in Montenegro by establishing efficient processes aimed at integrating climate risks into policy, planning and budgeting at the national and sector levels. The aim of the project is to strengthen the adaptive capacities of Montenegro through the development of a suitable environment for participatory design, implementation and monitoring of priority adaptation actions and will focus on capacity building and identification of adaptation measures in the following sectors: water supply, agriculture, public health and tourism.

1. Approach and methodology

To achieve the goals of sustainable development, **national policy makers** should ensure policy coherence and create synergies between national and international investment policies, between investment and other sustainable development policies (e.g. taxes, trade, competition, technology, and policies in environmental, social policy and labour markets) and between micro- and macroeconomic policies. Modern state governments are expected to facilitate private-sector investment in sustainable development. Historically, sustainable development projects, whether infrastructure, renewable energy or agriculture, have required more intensive efforts to promote and facilitate investment. At the national level, it is necessary to establish a number of different policies in order to respond to the challenges and constraints in mobilizing funds, directing them to the SDG sectors and ensuring sustainable impact. Future activities should focus on creating a new generation of investment promotion strategies and institutions, new forms of partnership for SDG investments, enabling innovative financing mechanisms and redirecting financial markets and incentives to invest in SDGs.

In this context, the aim is to develop a **study and roadmap for policies and incentives for green business in the sectors of agriculture, tourism and energy in Montenegro**, with a view to re-evaluating incentive policies – and how to make them more cost-effective and enable them to benefit a wide range of the population in Montenegro with a focus on green growth. The development of these documents means understanding and recognizing possible incentives for green business in the sectors of agriculture, tourism and energy. The aim is to enable the development of the roadmap and its further adoption and implementation in the Montenegrin political framework and thus contribute to a better investment environment.

The study aims to identify **specific policies**, which could contribute to green economic growth and investment in green business, such as providing targeted fiscal, financial and procedural incentives, and will clarify the advantages and disadvantages of the proposed policies and mechanisms. Based on the recommendations of the study, **a roadmap** for the introduction of policies and incentives for green business in the sectors of agriculture, tourism and energy is being developed. The goal is to develop a roadmap in cooperation with the representatives of the ministries, as well as the basic development guidelines given in the strategic documents and valid incentive mechanisms.

An added value of the study is a concise **overview of the functioning of the green bond market** at the global level and in the EU, and of its on-going development and specific sectors. Based on this part of the research, it is necessary to determine the possibilities **for the implementation of specific public-sector measures to strengthen the green bond market** in Montenegro.

A special focus is on strengthening the function of the Environmental Protection Fund and expectations regarding the growth of its competencies.

All of the above is especially important in the framework of Montenegro's efforts **to join the EU**, because the European Union is a leader in terms of sustainable development, and green and sustainable finance.

The methodology for designing this project is a response to the set goals in the job description itself. In this research a systematic approach, content analysis, historical method, comparative method, descriptive statistics and interviews were applied as the methodological framework.

2. Timeframe

The project task was set in a very short timeframe (**April–July 2020**), with research that includes horizontal linking of different research areas, as well as significant research into EU practice and useful comparative experiences.

The team consists of three experts with complementary skills (an economist with skills in sustainable development and planning, a legal expert and an economist/financial expert):

Prof. Gordana Đurović, PhD, University of Montenegro, Faculty of Economics, Podgorica

Prof. Jasmina Četković, PhD, University of Montenegro, Faculty of Economics, Podgorica

Prof. Nenad Ivanišević, PhD, University of Belgrade, Faculty of Civil Engineering, Belgrade, Serbia

The project was realized by the consulting company “Fidelity consulting” d.o.o. Podgorica (RFP 42/19).

During the implementation of this project, the research team cooperated with representatives of the Ministry of Sustainable Development and Tourism (especially with the Directorate for Climate Affairs, but also with those responsible for tourism), the Ministry of the Economy, the Ministry of Agriculture and Rural Development, the Environmental Protection Fund and representatives of UNDP.

The work on preparation of **the study** included several stages and forms of activities, which are summarized as follows: analysis of the situation in the EU – the European Green Deal and its applicability; analysis of the situation in Montenegro; assessment of legislation; analysis of green bonds; assessment of policies and fiscal regimes with a focus on priority sectors; analysis of the negative impacts of COVID-19 on the framework of incentive measures in Montenegro. Based on the results of the study and in cooperation with the institutions involved, **a roadmap** has been developed to encourage green business in priority sectors in Montenegro.

Special challenges during the implementation of this research were: challenges of working on the project in the COVID-19 pandemic, the limitation of the available data (including financial estimates), the limited period of study preparation, i.e. the limited possibility of collecting additional information from the private sector and other actors.

II. THE EUROPEAN GREEN DEAL

*We are in a climate and environmental emergency. **The European Green Deal** is an opportunity to improve the health and well-being of our people by transforming our economic model. Our plan sets out how to cut emissions, restore the health of our natural environment, protect our wildlife, create new economic opportunities, and improve the quality of life of our citizens. We all have an important part to play and every industry and country will be part of this transformation. Moreover, our responsibility is to make sure that this transition is a just transition, and that **nobody is left behind** as we deliver the European Green Deal.”⁶*

Frans TIMMERMANS
Executive Vice-President of the European Commission 2019–2024
Responsible for the European Green Deal and DG CLIMA

1. Analysis of the EU Action Plan for Financing Sustainable Growth and proposed activities

The importance of, and the need to take action on, the SDGs and the Paris Agreement is recognized in the European Commission’s Action Plan on Financing Sustainable Growth (**the Action Plan**⁷) launched in March 2018.

The key challenges⁸ that the action plan needed to address are as follows:

- the need to define “sustainable investment” through the classification of sustainable economic activities;
- the risk of “greenwashing” of investment products⁹ – hence the need to define standards and labels for “green” financial products that give investors certainty;
- the fact that banks and insurers often give insufficient consideration to climate and environmental risks – there is a need to study whether capital requirements should reflect the exposure to climate change and environmental risks;
- the fact that investors often disregard sustainability factors or underestimate their impact; and
- that there is too little information on corporate sustainability-related activities – there is a need for improving the disclosure of non-financial information, and thus long-termism in governance.

⁶ Presentation of the European Green Deal, 11 December 2019, https://ec.europa.eu/commission/presscorner/detail/en/IP_19_6691.

⁷ European Commission, Communication from the Commission: Action Plan: Financing Sustainable Growth (8 March 2018), available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52018DC0097>.

⁸ EC, AP for financing sustainable growth, 2018, https://ec.europa.eu/info/files/180308-action-plan-sustainable-growth-factsheet_en.

⁹ Using marketing to present an organization’s products, activities, or policies as environmentally friendly, although they are not; misuse of green marketing.

The Action Plan has three **broad aims**:

1. reorient capital flows towards **sustainable investment** in order to achieve sustainable and inclusive growth;
2. **manage financial risks** stemming from climate change, resource depletion, environmental degradation and social issues (integrating sustainability into risk management); and
3. **foster transparency and long-termism** in financial and economic activity.

To this end, the Action Plan sets out a strategy to encourage the **integration** of environmental, social and governance (EDU/ESG¹⁰) factors **into investment decision making**, so as to facilitate the mobilization of private capital to finance sustainable activities. According to estimates from the European Investment Bank (EIB), the overall investment gap in transport, energy and resource management infrastructure (water supply and waste management) has reached an astounding yearly figure of €270 billion¹¹.

Table 1. The Action Plan on financing sustainable growth – 10 measures

I.	REORIENT CAPITAL FLOWS TOWARDS SUSTAINABLE INVESTMENT IN ORDER TO ACHIEVE SUSTAINABLE AND INCLUSIVE GROWTH
	1. Unique classification system for sustainable activities
	<p><u>Measure 1: Establishing a European system for the classification of sustainable activities</u></p> <p>1.1. The EC has presented a Proposal of the Regulation on Taxonomy¹² – ensuring the progressive development of a European taxonomy of sustainable activities in the fields of climate change, environment and social issues, to facilitate sustainable investment in the environment (24 May 2018).</p> <p>1.2. The Technical Expert Group for Sustainable Financing (TEG) was established¹³ in July 2018, which prepared the first report with a proposal for a taxonomy and for mitigation measures, as well as climate change adaptation measures (19 June 2019, revision 9 March 2020¹⁴).</p>
	2. Standards and labels for sustainable financial products
	<p><u>Measure 2: Establishing standards and labels for green financial products</u></p> <p>2.1. TEG, Report on EU green bond standard (18 February 2019)¹⁵.</p> <p>2.2. The EC has determined the contents of the Prospectus for Issuing Green Bonds¹⁶; new regulation and measures in force from 21 July 2019.</p> <p>2.3. Once the EU sustainability taxonomy is adopted, the Commission will consider using the EU Ecolabel framework for specific financial products.</p>

¹⁰ Environmental, social and governance.

¹¹ The estimate is a yearly average investment gap for the period 2021–2030, based on the PRIMES model projections used by the European Commission in the Impact Assessment of the Proposal of the Energy Efficiency Directive (2016), <http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1483696687107&uri=CELEX:52016SC0405>.

¹² European Commission, Proposal for a Regulation of the European Parliament and of the Council on the establishment of a framework to facilitate sustainable investment (24 May 2018), available at <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52018PC0353>.

¹³ https://ec.europa.eu/info/publications/sustainable-finance-technical-expert-group_en.

¹⁴ EU, Technical Expert Group on Sustainable Finance, Taxonomy Technical Report, June 2019, revised version published on 9 March 2020.

¹⁵ Report on EU green bond standard, TEG, 18 February 2019, https://ec.europa.eu/info/sites/info/files/business_economy_euro/banking_and_finance/documents/190618-sustainable-finance-teg-report-green-bond-standard_en.pdf.

¹⁶ Commission Delegated Regulation (EU) 2019/980 of 14 March 2019 supplementing Regulation (EU) 2017/1129 of the European Parliament and of the Council as regards the format, content, scrutiny and approval of the prospectus to be published when securities are offered to the public or admitted for trading on a regulated market, and repealing Commission Regulation (EC) No 809/2004.

	3. Encouraging investment in sustainable projects, especially for infrastructure¹⁷
	<p><u>Measure 3: Encouraging investment in sustainable facilities</u></p> <p>3.1. The Commission, on the basis of existing efforts to strengthen advisory capacity for, inter alia the development of sustainable infrastructure projects, will undertake further measures to improve the efficiency and effectiveness of support instruments for sustainable investment in the EU and partner countries.</p>
	4. Sustainability aspect in financial advisory
	<p><u>Measure 4: Incorporating sustainability into financial consulting</u></p> <p>4.1. The EC has amended delegated acts MiFID II¹⁸ (Markets in Financial Instruments Directive¹⁹), and delegated acts²⁰ Insurance Distribution Directives (IDD, Insurance Distribution Directive) to ensure that sustainability preferences are taken into account when assessing adequacy. The European Securities and Markets Authority (ESMA), has included provisions on sustainability preferences in its guidelines for adequacy assessment²¹.</p>
	5. Sustainability benchmarks
	<p><u>Measure 5: Development of sustainability benchmarks</u></p> <p>5.1. Under the Benchmark Regulation²²:</p> <ul style="list-style-type: none"> i. The EC adopts delegated acts on the transparency of methodologies and functions of benchmarks, to enable users to better assess the quality of benchmarks²³; and ii. The TEG published a report on the concept and methodology of a benchmark for low-carbon emissions²⁴. The TEG published a Handbook on Climate Transition Benchmarks, Benchmarks for Compliance with the Paris Agreement and Benchmarks for Disclosure of Environmental, Social and Management Factors²⁵.
II.	MANAGE FINANCIAL RISKS STEMMING FROM CLIMATE CHANGE, RESOURCE DEPLETION, ENVIRONMENTAL DEGRADATION AND SOCIAL ISSUES
	1. Sustainability in market research and credit ratings
	<p><u>Measure 6: Better inclusion of sustainability into ratings and market research</u></p> <p>1.1. Examine the benefits of changes to the Regulation on Credit Rating Agencies in order to authorize them to explicitly include sustainability factors in their ratings in a proportionate manner in order to preserve market access for smaller entities.</p> <p>1.2. The ESMA is to: i. Evaluate the current practice in the credit rating market and determine the extent to which environmental, social and management aspects are taken into account; and ii. Include information on environmental and social sustainability in its disclosure guidelines for credit rating agencies, and to consider additional guidance or measures as appropriate.</p> <p>1.3. The Commission is to produce a comprehensive study on ratings and sustainability research.</p>

17 According to the OECD, infrastructure contributes about 60% of greenhouse gas emissions (OECD, Investing in Climate, Investing and Growth, 2017). However, beyond large-scale infrastructure projects, the clean energy transition also requires adequate finance available for smaller-scale, distributed projects (this concerns particularly energy efficiency improvements, for example in buildings, and deployment of renewable energy).

18 The Commission-implemented regulation regarding the integration of Environmental, Social and Governance (ESG) considerations and preferences into the investment advice and portfolio management has not been adopted yet; the full list of implemented and delegated acts of MiFID II is available at https://ec.europa.eu/info/sites/info/files/business_economy_euro/banking_and_finance/documents/mifid2-level-2-measures-full_en.pdf.

19 Directive 2014/65/EU of the EP and of the Council of 15 May 2014 on markets in financial instruments (MiFID II).

20 The Commission-delegated regulation amending Regulation (EU) 2017/2359 as regards the integration of Environmental, Social and Governance (ESG) considerations and preferences into the investment advice for insurance-based investment products has not yet been adopted; the full list of implemented and delegated acts of Insurance Distribution Directive is available at https://ec.europa.eu/info/sites/info/files/business_economy_euro/banking_and_finance/documents/idd-level-2-measures-full_en.pdf.

21 Guidelines on MiFID II suitability requirements (ESMA35-43- 1163), European Security and Markets Authority, 6 November 2018, item 28 – it would be a good practice to collect information on the client's preferences on environmental, social and governance factors (https://www.esma.europa.eu/sites/default/files/library/esma35-43-1163_guidelines_on_certain_aspects_of_mifid_ii_suitability_requirements_0.pdf).

22 Regulation (EU) 2016/1011 of the European Parliament and of the Council of 8 June 2016 on indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds. In force as of 1 January 2018.

23 The full list of implemented and delegated acts of EU Benchmark Regulation 2016/1011 is available at https://ec.europa.eu/info/sites/info/files/business_economy_euro/banking_and_finance/documents/benchmarks-regulation-level-2-measures-full_en.pdf.

24 TEG, Final Report on Climate Benchmarks and Benchmarks' ESG Disclosures, September 2019.

25 TEG, Handbook of Climate Transition Benchmarks, Paris-Aligned Benchmark and Benchmarks' ESG Disclosures, 20 December 2019 (https://ec.europa.eu/info/sites/info/files/business_economy_euro/banking_and_finance/documents/192020-sustainable-finance-teg-benchmarks-handbook_en_0.pdf).

	2. Responsibilities of Institutional investor and asset manager in terms of sustainability
	<p><u>Measure 7: Clarification of the obligations of institutional investors and asset managers</u></p> <p>7.1. The Commission is to submit legislative proposal clarifying obligations of institutional investors and asset managers on sustainability issues.</p>
	3. Credit rating requirements for banks and insurance companies
	<p><u>Measure 8: Incorporating sustainability into prudential requirements</u></p> <p>1.1 Investigate the possibility of incorporating climate change and other environmental factors into institutions' risk management policies and the potential calibration of capital requirements for banks under the Capital Requirements Regulation and Directive.</p> <p>1.2 The European Insurance and Occupational Pensions Authority (EIOPA²⁶) is to deliver an opinion on the impact of prudential rules for insurance companies on sustainable investments, with particular emphasis on climate-change mitigation. The Commission will take this opinion into account in the report that it will submit by 1 January 2021 to the EP and the Council under the Solvency Directive²⁷.</p>
III.	FOSTER TRANSPARENCY AND LONG-TERMISM IN FINANCIAL AND ECONOMIC ACTIVITY
	1. Publishing and accounting
	<p><u>Measure 9: Strengthening disclosure in the area of sustainability and accounting policies</u></p> <p>1.1 Checking the compliance of EU legislation on public corporate reporting²⁸, including the Directive on the Disclosure of Non-Financial Information, to assess the suitability of public corporate reporting requirements for listed and non-listed companies, as well as for digital reporting capabilities.</p> <p>1.2 The Commission has revised the Guidelines for Reporting on Non-Financial Information: Supplement on Reporting Climate-Related Information²⁹, 2019/C 209/01.</p> <p>1.3 The TEG published a report on Climate-Related Disclosures³⁰.</p> <p>1.4 The European Corporate Reporting Laboratory is established within the European Financial Reporting Advisory Group (EFRAG)³¹ to promote innovation and the development of best practices in corporate reporting such as environmental accounting. A business and investor forum where they can share best practices in sustainability reporting.</p> <p>1.5 The Commission will request of EFRAG to, as appropriate, evaluate the impact of new or revised International Financial Reporting Standards (IFRS) on sustainable investments.</p>
	2. Corporate governance and unjustified short-termism on the capital market
	<p><u>Measure 10: Encouraging sustainable corporate governance and limiting short-termism in the capital markets</u></p> <p>1.1 The Commission will conduct analyses and consultations in order to promote corporate governance that encourages sustainable investment in collaboration with relevant stakeholders, to identify: (i) the possible need to require from enterprises' management to develop and publish a sustainability strategy, including appropriate in-depth analysis throughout whole supply chain, and measurable sustainability targets; and (ii) the possible need to clarify the rules under which directors would act in the long-term interest of the company.</p> <p>1.2 The Commission invites the European Supervisory Authorities to gather evidence of unjustified short-term pressure on the capital market by enterprises and to consider further measures, where necessary, based on the evidence collected.</p>

The new European Commission, led by Ursula von der Leyen, unveiled the **European Green Plan**³² already at the beginning of her mandate, on 11 December 2019, as one of the key priorities of work in the period 2019–2024. The Sustainable Growth Financing AP is integrated into this broader context of action.

²⁶ European Insurance and Occupational Pensions Authority.

²⁷ Article. 77.fi 111. of Directive 2009/138/EC of the European Parliament and of the Council of 25 November 2009 on the taking-up and pursuit of the business of Insurance and Reinsurance (Solvency II).

²⁸ Regulation (EU) 2019/2088 of the European Parliament and of the Council of 27 November 2019 on sustainability-related disclosures in the financial services sector, effective from 27 December 2019.

²⁹ Communication from the Commission — Guidelines on Non-Financial Reporting: Supplement on Reporting Climate-Related Information, 2019/C 209/01, [https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52019XC0620\(01\)](https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52019XC0620(01)).

³⁰ TEG report on Climate-Related Disclosures, January 2019, https://ec.europa.eu/info/sites/info/files/business_economy_euro/banking_and_finance/documents/190110-sustainable-finance-teg-report-climate-related-disclosures_en.pdf.

³¹ <https://www.efrag.org/>.

³² Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions, The European Green Deal, Brussels, 11 December 2019, COM (2019) 640 final <https://eur-lex.europa.eu/legal-content/EN/TXT/DOC/?uri=CELEX:52019DC0640&from=EN>.

2. The European Green Deal

Climate change and environmental degradation pose an existential threat to Europe and the world. To overcome this challenge, Europe needs a new growth strategy that will transform the European Union into a modern, resource-efficient and competitive economy with no net greenhouse gas emissions by 2050, where economic growth does not come solely from resource use and where no individual or region is neglected. **The EU's climate and energy framework by 2030** contains the following key objectives³³:

- At least a 40% reduction in GHG emissions (from 1990 levels)
- At least a 32% share for renewable energy
- At least a 32.5% improvement in energy efficiency

The European Union is already doing well in reducing greenhouse gas emissions while maintaining economic growth. Emissions in 2018 were **23%** lower than in 1990, while the Union's GDP grew by **61%** in the same period³⁴. Existing policies reduce GHG emissions by only 60% by 2050. Much remains to be done, starting with a more ambitious climate policy in the next decade, which includes more ambitious climate and energy targets by 2050. The vast majority of Europeans believe that environmental protection is important (95%). Almost 8 out of 10 Europeans (77%) say that environmental protection can stimulate economic growth³⁵. The results of a **Eurobarometer survey** on the attitudes of EU citizens regarding the environment confirm broad public support for environmental legislation at the level of the European Union and the EU in financing environmentally friendly activities. Becoming the world's first climate-neutral continent by 2050 is the greatest challenge and opportunity of our time. To achieve this, the European Commission presented the **European Green Deal** on 11 December 2019, the most ambitious package of measures that should enable European citizens and businesses to benefit from a sustainable green transition. Measures accompanied by initial maps of major policies range from ambitious emission reductions, to investment in cutting-edge research and innovation, and to the preservation of Europe's natural environment. Supported by investments in green technologies, sustainable solutions and new businesses, the Green Deal can be a **new EU growth strategy**. The involvement and commitment of the public and all stakeholders is crucial to its success.

The EU Green Deal is an integral part of this Commission's strategy for implementing the United Nations 2030 Agenda and the Sustainable Development Goals.

Above all, the European Green Plan lays the foundation for a transition that is just and socially just (equitable, rightful). It is designed to leave no individual or region behind in the great transformation that lies ahead.

The European Green Deal provides a roadmap with activities to strengthen the resource efficiency of the transition to a clean, circular economy and to halt climate change and retrograde impacts on biodiversity loss, and to reduce pollution. It presents the necessary investments and available funding tools and explains how to ensure a fair and comprehensive transition. The European Green Deal covers **all sectors of the economy**, especially transport, energy, agriculture, buildings and industries such as: steel, cement, ICT, textiles and chemicals. **The European Green Deal**³⁶ was presented on 11 December 2019 as one of the key priorities of the work of the European Commission in the period 2019–2024.

³³ The framework was adopted by the European Council in October 2014. The targets for renewable energy and energy efficiency in 2018 have been revised upwards.

³⁴ European Environmental Agency, Trends and projections in Europe 2019, 15/2019; <https://www.eea.europa.eu/publications/trends-and-projections-in-europe-1>.

³⁵ Special Eurobarometer 490, Climate Change, April 2019.

³⁶ Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions, European Green Plan, Brussels, 11 December 2019., COM (2019) 640 final, <https://eur-lex.europa.eu/legal-content/EN/TXT/DOC/?uri=CELEX:52019DC0640&from=EN>.

Table 2. The European Green Deal: key actions

1. Greater climate ambitions of the EU for 2030 and 2050 (2020/2021)
<ul style="list-style-type: none"> ▶ Proposal for a European Climate Law³⁷ establishing the objective of climate neutrality for 2050³⁸ ▶ A comprehensive plan to increase the EU's climate target for 2030 by at least 50% and towards 55% in a responsible manner ▶ The key targets for 2030 are the following: reducing GHG emissions by at least 40% compared to 1990 levels; an RES share of at least 32% and improvement of EE by at least 32.5% ▶ Proposals for revisions to the relevant legislative measures in order to achieve greater climate ambitions following the review of the Emissions Trading System Directive; effort-sharing regulations; regulations on land use, land use change and forestry; directives on energy efficiency; directives on the promotion of the use of energy from renewable sources; a CO₂ emission standard for cars and vans (2021) ▶ Proposal for the revision of the Energy Taxation Directive (2021) ▶ Proposal of a carbon border adjustment mechanism for selected sectors (2021) ▶ A new EU strategy for adapting to climate change (2021)
2. Clean, affordable and safe energy (2020)
<ul style="list-style-type: none"> ▶ Evaluation of the final National Energy and Climate Plans ▶ Strategy for smart sector integration ▶ The "Renovation Wave" initiative for the construction sector ▶ Evaluation and review of the Trans-European Network – Energy Regulation ▶ Strategy on offshore wind energy
3. An industrial strategy for a clean and circular economy (2020)
<ul style="list-style-type: none"> ▶ A new EU industrial strategy for a globally competitive, green and digital Europe³⁹ ▶ Circular Economy Action Plan, including the sustainable products initiative and particular emphasis on resource-intensive sectors, such as the textiles, construction, electronics and plastics sectors ▶ Initiatives to foster leading markets for climate-neutral and circular products in energy-intensive industries ▶ A state aid proposal for zero-carbon steel production processes until 2030 ▶ Battery legislation to support the Strategic Action Plan for Batteries and the Circular Economy ▶ Proposing waste legislation reform
4. Sustainable and smart mobility (2020–2021)
<ul style="list-style-type: none"> ▶ Strategy for sustainable and smart mobility ▶ Call for funding for the introduction of public refuelling and supply sites within the alternative fuel infrastructure ▶ Consider legislative options to encourage the production of sustainable alternative fuels for different modes of transport ▶ Revised proposal for the Directive on Combined Transport ▶ Review of the Alternative Fuels Infrastructure Directive and the Trans-European Transport Network Regulation ▶ Initiatives to increase capacity and better management of rail and inland waterways ▶ Proposal for stricter pollutant emission standard values for internal combustion engine vehicles

³⁷ https://ec.europa.eu/info/sites/info/files/commission-proposal-regulation-european-climate-law-march-2020_en.pdf.

³⁸ The Commission proposed in 2018 (COM (2018) 773 final) that the EU should become climate-neutral by 2050, compensating not only for all remaining CO₂ but also for all remaining other GHG emissions. European Council (European Council conclusions, 12 December 2019) and Parliament (European Parliament resolution of 14 March 2019 on climate change and the resolution of 28 November 2019 on the UN Climate Change Conference 2019 in Madrid, Spain) (COP 25)) approved this long-term EU goal.

³⁹ https://ec.europa.eu/info/strategy/priorities-2019-2024/europe-fit-digital-age/european-industrial-strategy_hr.

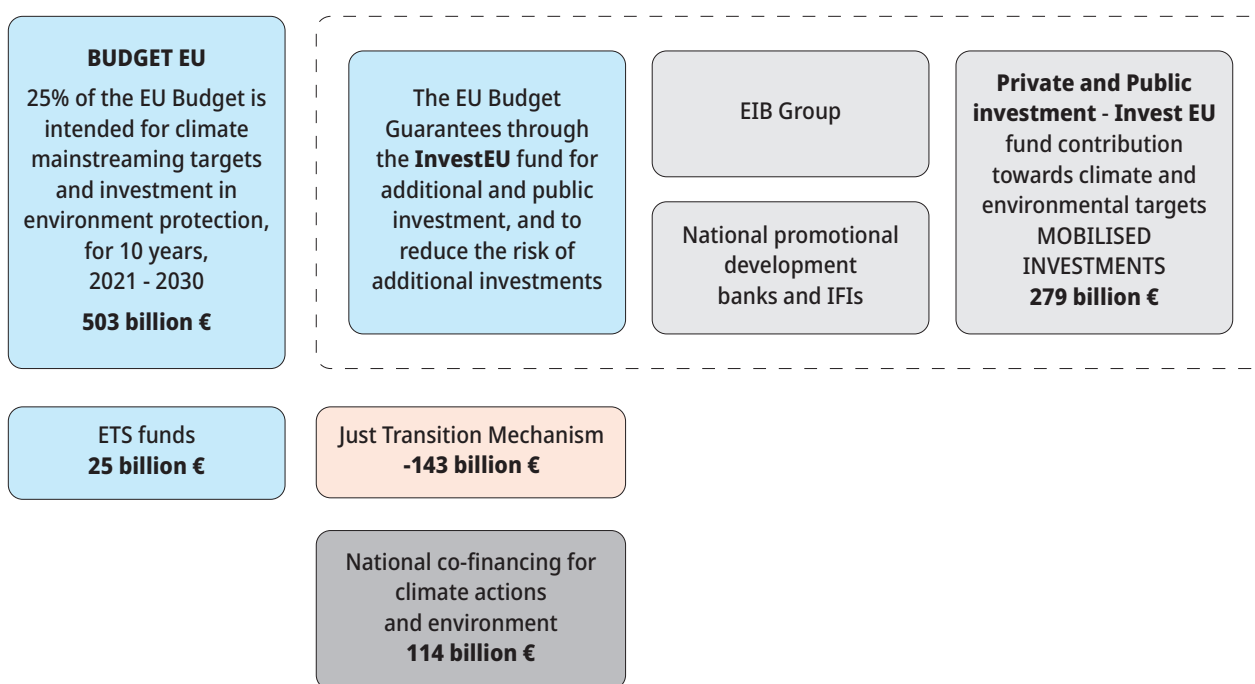
5. Greening the Common Agricultural Policy/“Farm to Fork” Strategy (2020–2021)
<ul style="list-style-type: none"> ▶ Review of draft national strategic plans in view of the ambitions of the European Green Plan and the Farm to Fork Strategy ▶ Farm to Fork Strategy 2020; measures, including legislative ones, to significantly reduce the use and risk of chemical pesticides, and the use of fertilizers and antibiotics, in 2021
6. Preserving and protecting biodiversity (2020–2021)
<ul style="list-style-type: none"> ▶ EU Biodiversity Strategy to 2030 ▶ Measures to address the root causes of biodiversity loss ▶ New EU Forest Strategy ▶ Measures to support value chains without deforestation
7. Towards a zero-pollution ambition for a non-toxic environment
<ul style="list-style-type: none"> ▶ Chemicals strategy for sustainability ▶ Zero-pollution action plan for water, air and soil ▶ Revision of pollution-control measures from large industrial plants
8. Mainstreaming sustainability in all EU policies
<ul style="list-style-type: none"> ▶ Proposal for a Just Transition Mechanism, including a Just Transition Fund, and a Sustainable Europe Investment Plan ▶ Renewed Sustainable Financing Strategy (autumn 2020) ▶ Review of the Non-Financial Reporting Directive ▶ Initiatives to verify and establish benchmarking practices for green budget management of Member States and the EU ▶ Review of relevant state aid guidelines, including guidelines on state aid for environment and energy ▶ Aligning all new Commission initiatives with the objectives of the Green Plan and fostering innovation ▶ Stakeholders identify and correct inconsistent legislation that reduces the effectiveness of the implementation of the European Green Plan ▶ Integration of the Sustainable Development Goals into the European Semester
9. The EU as a global player
<ul style="list-style-type: none"> ▶ The EU continues to conduct international negotiations on climate and biodiversity, further strengthening the international policy framework ▶ Strengthening EU diplomacy on the green agenda in cooperation with Member States ▶ Bilateral efforts to encourage partners to act and ensure comparability of actions and policies ▶ The Green Agenda for the Western Balkans (from 2020)
10. Working Together – A European Climate Pact (2020)
<ul style="list-style-type: none"> ▶ Launching the European Climate Pact ▶ Proposal for the 8th Environmental Action Programme

According to the document, the EU will work especially to support the strengthening of the green economy of its closest neighbours, including the countries of the Western Balkans. An ecological transition for Europe can only be fully effective if the European Union’s immediate neighbourhood goes through effective measures. The Commission is working on a **Green Agenda for the Western Balkans**.

2.1. Investment plan for the European Green Deal 2021–2030

Finally, on 14 January 2020, the Commission also presented the communication **Sustainable Europe Investment Plan**⁴⁰, i.e. **European Green Deal Investment Plan**, which should contribute to the achievement of the Sustainable Development Goals in Europe. In the coming decade (2021–2030) this plan will require the additional mobilization of €1,000 billion in sustainable investments which is presented in the following scheme:

Scheme 1. Sustainable Europe Investment Plan 2021–2030⁴¹



Investment structure proposal:

- **from the EU Budget €503 billion will be provided in the period 2021–2030**, in line with the 25% climate mainstreaming target proposed for the 2021–2027 Multiannual Financial Framework (MFF) and including spending on the environment across all programmes (European Agricultural Fund for Rural Development, European Agricultural Guarantee Fund, European Regional Development Fund, Cohesion Fund, Horizon Europe and Life funds);
- this will trigger additional **national co-financing of €114 billion** over this timeframe on climate and the environment;
- **attracting private investment through InvestEU** – by providing an EU guarantees to reduce the risk of financing and investment operations, the InvestEU fund will encourage additional private and public climate and environmentally-related investments in the amount of approximately **€279 billion** over the period 2021–2030;

40 Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions – Sustainable Europe Investment Plan/ European Green Deal Investment Plan, Brussels, 14 January 2020, COM(2020)21final (https://ec.europa.eu/commission/presscorner/detail/en/fs_20_48).

41 COM(2020)21final, p. 5.

- to leave no one behind, **the Just Transition Mechanism** will include financing from the EU budget, co-financing from the Member States as well as contributions from InvestEU and the EIB to reach €100 billion of investments to be mobilized over 2021–2027, which, extrapolated over 10 years, will reach €143 billion to ensure a just transition;
- **the Innovation and Modernization funds**, which are not part of the EU budget but are financed through a part of the revenues from the auctioning of carbon allowances under the Emissions Trading Scheme, will provide at least some €25 billion for EU transition to climate neutrality.

Following the AP for Sustainable Growth Financing (2018) and the European Green Plan (2019), the Commission will present, at the end of 2020, a **Renewed Sustainable Financing Strategy**.

2.2. EIB contribution to mobilization of other financial institutions

The European Investment Bank (EIB) is also playing a key role in financing the shift to a carbon-neutral, sustainable economy. It is using its own resources and EU budgetary support under various programmes and facilities to finance climate action and environmental investments both inside and outside the EU. In 2018, almost 30% of EIB-signed operations contributed to climate action, supporting investments in climate change mitigation and adaptation, low-carbon and climate-resilient growth⁴².

For the duration of the Sustainable European Investment Plan over a decade, the EIB is expected to finance, outside of EU mandates, around **€600 billion** of climate investments across all Member States.

The role of the EIB in financing the sustainable transition will grow as it becomes the EU's climate bank. The EIB will gradually increase the share of its financing dedicated to climate action and environmental sustainability to reach 50% by 2025 and beyond. A significant share of this will be carried out under the InvestEU Programme, which will allow the EIB to engage in more innovative, higher policy-added value projects, by covering a part of the risk of financing and investment operations. Moreover, the EIB Group will align all its financing activities with the principles and goals of the Paris agreement by the end of 2020. A first step in that direction was the adoption of the new Energy Lending Policy on 14 November 2019, which prioritizes lending to energy efficiency, renewable energy, new green technologies and new types of energy infrastructure required for the future low-carbon energy system. The revised Energy Lending Policy also foresees the phasing out of support to energy projects reliant on fossil fuels after the end of 2021, including, notably, all-natural-gas infrastructure projects.

Other international and national financial institutions will play an increasing role in financing sustainability in line with EU policy objectives. The Commission will therefore work closely with them to explore how their activities could be aligned more closely with the objectives of the European Green Deal.

To conclude, the global challenges of climate change and environmental degradation require a **global response**. The EU will continue to promote its environmental goals and standards in the UN's Biodiversity and Climate Conventions and reinforce its green diplomacy. The G7, G20, international conventions and bilateral relationships will be used to persuade others to step up their efforts. The EU will also use trade policy to

⁴² The EIB Climate Action Eligibility List – the EIB's list of eligible sectors/activities is regularly updated. The EIB Financing Programme in the areas of climate change mitigation is in accordance with the list of approved sectors and benchmarks. Climate action mitigation activities comprise the following categories: renewable energy; low-carbon and energy-efficient generation; production of fuels from low-carbon energy sources; energy efficiency; agriculture, forestry and land use; non-energy GHG reductions; waste and wastewater; transport; low-carbon technologies; and cross-cutting issues (support for national or local policy through technical assistance or policy lending, etc.), https://www.eib.org/attachments/strategies/climate_action_lending_eligibility_list_2020_en.pdf.

ensure sustainability and will build partnerships with its neighbours in the Balkans and Africa to help them with their own transitions⁴³. The European Green Deal is the first comprehensive plan to achieve sustainable development in any major world region. As such, **it becomes a global benchmark – a “how-to” guide for planning the transformation** into a prosperous, socially inclusive, and environmentally sustainable economy. The Green Deal announced by the European Commission is a demonstration of European social democracy at work. A mixed economy, combining markets, government regulation, the public sector, and civil society (a citizen-based approach), will pursue a mixed strategy: public goals, public investments in infrastructure, private investments in industrial transformation, public–private research and development missions, and an informed population⁴⁴.

3. The EU Taxonomy

The EU Taxonomy is a classification framework according to which activities can be assessed in order to determine whether they are environmentally sustainable. To be environmentally sustainable, an activity must satisfy four tests (a common understanding of the characteristics of “sustainability”). In other words, economic activity:

- must **substantially contribute** to the one or more of the specified environmental objectives outlined in the Proposed Taxonomy Regulation, these being: climate change mitigation; climate change adaptation; sustainable use and protection of water and marine resources; transition to a circular economy, waste prevention and recycling; pollution prevention and control; and protection of healthy ecosystems;
- must **do no significant harm (DNSH)** to any of the other listed environmental objectives;
- must be carried out in **compliance with minimum social safeguards** (i.e. the eight fundamental International Labour Organization conventions⁴⁵); and
- must **comply with the technical screening criteria**, which, in effect, define what it means to “substantially contribute” and DNSH to an environmental objective.

In its report, the Technical Expert Group on Sustainable Finance (TEG) sought to identify and assess activities that make a substantial contribution to climate change mitigation or adaptation on their own, as well as those activities that enable the overall transition to a low-emissions, climate-resilient economy. The TEG started from the available sector-level emission data, as presented in the NACE table.

The TEG has adopted the **NACE classification of economic activities**⁴⁶ – it has defined the priority sectors based on their significant contribution to climate change mitigation, i.e. a reduction of greenhouse gas emissions⁴⁷:

43 https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal_en.

44 Sachs, D. Jeffrey, European Green Plan, 13 December, 2019, Project Syndicate (<https://www.project-syndicate.org/commentary/europe-green-deal-is-global-beacon-by-jeffrey-d-sachs-2019-12>).

45 The right not to be subjected to forced labour, the freedom of association, workers’ right to organize, the right to collective bargaining, equal remuneration for men and women workers for work of equal value, non-discrimination in opportunity and treatment with respect to employment and occupation, as well as the right not to be subjected to child labour.

46 NACE – Nomenclature statistique des activités économiques dans la Communauté européenne (NACE) is a European industry standard classification system – the Statistical Classification of Economic Activities in the European Community.

47 In total, the activities of the selected sectors account for 93.5% of greenhouse gas emissions according to the NACE classification. TEG, Taxonomy Technical Report, March 2020 (https://ec.europa.eu/info/sites/info/files/business_economy_euro/banking_and_finance/documents/190618-sustainable-finance-teg-report-taxonomy_en.pdf).

- Agriculture, forestry and mining;
- Manufacturing;
- Electricity, gas, steam and air conditioning supply;
- Water, sewerage, waste and remediation;
- Transportation and storage;
- Information and communication technologies;
- Buildings (construction and real estate activities with application to other sectors as appropriate).

NACE sectors considered in the EU Taxonomy based on CO₂e emission are presented in Table 3 below. Almost 30% of emissions are in sector D and 53% in sectors D and C.

Table 3. NACE sectors considered in the EU Taxonomy based on CO₂e emission

NACE macro-sector code	Scope 1 (tonnes CO ₂ e) 2018	%
D – Electricity, gas, steam and air conditioning supply	1,021,327,916.14	29.2%
C – Manufacturing	836,131,368.27	23.9%
H – Transportation and storage	543,990,599.69	15.6%
A – Agriculture, forestry and fishing	526,387,217.14	15.1%
E – Water supply; sewerage, waste management and remediation activities	161,962,114.37	4.6%
B – Mining and quarrying	81,201,552.02	2.3%
G – Wholesale and retail trade; repair of motor vehicles and motorcycles	79,399,182.95	2.3%
F – Construction (<i>Building criteria</i>)	64,791,686.40	1.9%
Q – Human health and social work activities	32,512,530.55	0.9%
O – Public administration and defence; compulsory social security	29,297,099.74	0.8%
N – Administrative and support service activities	21,424,859.33	0.6%
I – Accommodation and food service activities	17,333,105.86	0.5%
P – Education	17,273,274.20	0.5%
M – Professional, scientific and technical activities	17,056,511.88	0.5%
K – Financial and insurance activities	10,837,435.09	0.3%
S – Other service activities	9,816,300.62	0.3%
J – Information and communication	8,780,514.69	0.3%
R – Arts, entertainment and recreation	8,298,587.66	0.2%
L – Real-estate activities (<i>Building criteria</i>)	5,726,208.34	0.2%
T – Activities of households as employers	234,573.70	0.0%
U – Activities of extraterritorial organizations and bodies	26.68	0.0%
TOTAL	3,493,782,665.32	100.0%
Based on emissions – fully considered sectors		
Based on emissions – partially considered sectors		
It may be able to enable substantive emission reductions in other sectors		
The selected sectors represent a minimum of 93.5% of NACE-based Scope-1 emissions based in the EU (based on 2018 data, i.e. EUROSTAT emission inventory data 2016). Source: TEG ; Taxonomy report, Technical Annex, March 2020.		

The first activity in the Action Plan on Financing Sustainable Growth (2018) was development of the EU Taxonomy. In supporting the diversion of capital flows towards more sustainable activities the **Proposed Taxonomy Regulation**⁴⁸ was politically aligned in December 2019.

On 15 April 2020 the Council adopted by written procedure its position at first reading with respect to the Taxonomy Regulation. The European Parliament approved the text pursuant to the “early second reading agreement” procedure on 18 June 2020. The text will soon be published in the Official Journal and will enter into force on the 20th day after its publication⁴⁹.

The TEG has also prepared the useful **EU taxonomy tools in Excel format**⁵⁰ to help users of the Taxonomy to implement it in their own activities. In Excel format the following is given: a summary and detailed overview of climate change mitigation activities, as well as climate change adaptation activities, a list of related EU regulations and links with other economic classifications (BICS⁵¹ and TRBC⁵²).

Economic activities can also be viewed through contributions to particular environmental **objectives**:

Table 4. Economic activities and its contribution to environmental objectives

Economic activities that significantly contribute to climate change mitigation⁵³ are:
<ul style="list-style-type: none"> ▶ The production, storage or use of renewable energy or climate-neutral energy (including carbon-neutral energy), including innovative technology with the potential for significant future savings or needed network strengthening ▶ Improved energy efficiency ▶ Increasing clean or climate-neutral mobility ▶ Switch to the use of renewable materials ▶ Increasing the use of carbon capture and storage ▶ Gradual suspension of anthropogenic greenhouse gas emissions, inter alia from fossil fuels ▶ Establishing the energy infrastructure needed to decarbonize energy systems ▶ Production of clean and efficient fuels from renewable or carbon-neutral sources
Economic activities that significantly contribute to climate change adaptation⁵⁴ are:
<ul style="list-style-type: none"> ▶ Any economic activity that contributes substantially to reducing the negative effects of the current and expected future climate, or preventing an increase, or shifting of the negative effects of climate change (location- and context-specific negative effects of climate change; the negative effects that climate change may pose to the natural and built environment within which the economic activity takes place).
Economic activities that significantly contribute to the sustainable use and protection of water and marine resources are:
<ul style="list-style-type: none"> ▶ Protection of water from the adverse effects of municipal and industrial wastewater discharges by ensuring the proper collection and treatment of municipal and industrial wastewater ▶ Protecting human health from the harmful effects of any pollution on drinking water ▶ Pumping water in accordance with the objective of good quantitative status ▶ Improving water efficiency, facilitating water reuse, or any other activity that protects or improves water quality ▶ Ensuring the sustainable use of marine ecosystem services or contributing to the good status of the marine environment

48 Proposal for Regulations on Taxonomy, May 2018; European Commission, Proposal for a Regulation of the European Parliament and of the Council on the Establishment of a Framework to Facilitate Sustainable Investment (24 May 2018), <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX-%3A52018PC0353>.

49 https://ec.europa.eu/info/publications/sustainable-finance-teg-taxonomy_en.

50 https://ec.europa.eu/info/files/sustainable-finance-teg-taxonomy-tools_hr.

51 The Bloomberg Industry Classification System (BICS).

52 The Thompson Reuters Business Classification system (TRBC).

53 “Climate change mitigation” means the process of holding the increase in the global average temperature to well below 2°C above pre-industrial levels and limiting the temperature increase to 1.5°C above pre-industrial levels.

54 “Climate change adaptation” means the process of adjustment to actual and expected climate and its effects.

Economic activities that significantly contribute to the circular economy⁵⁵, waste prevention and recycling are:
<ul style="list-style-type: none"> ▶ Improving the efficiency of the use of raw materials in production, inter alia by reducing the use of primary raw materials and the increasing use of by-products and waste ▶ Increasing durability, ability to repair, upgrade or reuse the product ▶ Increasing the ability to recycle products, including individual materials contained in products, inter alia by replacing or reducing the use of non-recyclable products and materials ▶ Reducing the share of hazardous materials in materials and products ▶ Extension of product use, inter alia by increasing re-use, re-production, upgrade, repair, and product sharing among consumers ▶ Increasing the use of secondary raw materials and their quality, including through high quality waste recycling ▶ Reducing waste generation ▶ Increasing preparation for reuse and recycling of waste ▶ Avoiding incineration and disposal of waste ▶ Avoiding and cleaning up waste and other pollution caused by improper waste management ▶ Efficient use of natural energy sources
The economic activities that have shown a contribution to prevention and controlled pollution are:
<ul style="list-style-type: none"> ▶ Reducing air, water and land pollution other than greenhouse gas emissions ▶ Improving the level of air, water or land quality in areas where economic activity is carried out while minimizing the negative effects and risks to human health and the environment ▶ Reducing the significant adverse effects of the production and use of chemicals on human health and the environment
Economic activities that significantly contribute to the protection of healthy ecosystems:
<ul style="list-style-type: none"> ▶ Nature conservation (habitat, species); protecting, restoring and improving the condition of ecosystems and their ability to provide services ▶ Sustainable land management, including adequate protection of soil biodiversity; neutrality of land degradation; state aid for the disposal of contaminated sites ▶ Sustainable agricultural practices, including ones that contribute to stopping or preventing deforestation and habitat loss ▶ Sustainable forest management

Source: Proposal for a Regulation on the Establishment of a Framework for Facilitating Sustainable Investments, Art. 6-11, COM(2018)353final;

The TEG then developed quantitative screening criteria **for 70 priority activities** within these sectors that had the potential to contribute substantially to **climate change mitigation** by (i) being already low-carbon (“green” activities); (ii) contributing to a transition to a net-zero-emission economy by 2050 (but which are not currently “green”) (“greening of” activities); or (iii) enabling low-carbon performance or emissions reductions by other activities (“greening by” activities). The type of screening criteria applied to each priority activity was determined by its characteristics.

⁵⁵ “Circular economy” means maintaining the value of products, materials and resources in the economy for as long as possible, and minimizing waste, including through application of the waste hierarchy.

Table 5. Sort of activities and criteria

	Green activities	Greening of activities	Greening by activities
Characteristics	Activities that are already low-carbon and compatible with a 2050 net-zero-carbon economy	Activities that contribute to a transition to a 2050 net-zero-carbon economy but are not currently operating at that level	Activities that enable climate change mitigation to occur
Examples	Zero-emissions transport Afforestation Near to zero-carbon electricity generation	Efficient steel manufacturing Low-carbon car fleets Efficient electricity generation	Manufacture of wind turbines Installing efficient boilers in buildings
Quantitative screening criteria – substantial contribution to mitigation	Long-term stable criteria tied to greenhouse gas emission-based thresholds	Criteria tied to greenhouse gas emission thresholds subject to regular revisions tending towards zero emissions For relevant sectors, the EU ETS benchmarks have generally been used as the initial threshold to be achieved in the short term. This benchmark will reduce over time, towards zero emissions by 2050	Stable and long-term (if the enabling activities are already “green”) or subject to regular revision tending towards zero emissions (if enabling activities are not yet “green”) (see boxes to the left)

Source: TEG, EU Taxonomy Report, June 2019, pp. 29–30.

The inclusion of “greening of” and “greening by” activities (provided they meet the technical screening and other criteria) represents the broad approach taken by the TEG to enable a more holistic approach to climate change mitigation. However, as the transition to a low-carbon economy will involve the **phasing out** of some economic activities, such as unabated fossil fuel power generation, the TEG considered that these activities should be excluded from the taxonomy.

In respect of climate change adaptation, the TEG emphasized that adaptation is **location- and context-specific** and that it is therefore not possible to produce a comprehensive list of activities that could be viewed as contributing to adaptation under **all** circumstances.

Instead, **investors** should consider **guiding principles and a set of qualitative screening criteria** to determine whether the activity contributes significantly to climate change adaptation, which can be applied in any sector. The principles and criteria to be applied will depend on whether the activity in question is an “adaptation” of the activity itself or an “adaptation” to other activities. “Adaptation” of activities refers to those that are more climate-resilient by adopting measures to reduce the material and physical risks from climate change, while “adaptation” through certain activities includes those activities that support adaptation to climate change by other activities.

To test the application of the principles and screening criteria, the TEG developed an initial list of economic activities (sectors) especially important for the **climate change adaptation**: (a) agriculture, forestry and mining; (b) electricity, gas, steam and air conditioning supply; (c) information and communication technologies; (d) financial services and insurance; (e) professional, scientific and technical activities; and (f) water, sewerage, waste and remediation. No activities were excluded from the scope of activities substantially contributing to climate change adaptation, on the basis that adaptation in all sectors is important to build a climate-resilient future.

Other criteria – do no significant harm and social safeguards (DNSH) – Under the proposed Taxonomy Regulation, no climate change mitigation or adaptation activity will be considered to be environmentally sustainable if it causes significant harm to any of the other environmental objectives (protection of water resources; transition to a circular economy; pollution prevention and control; and healthy eco-systems) or if it does not comply with minimum social safeguards (i.e. the principles and rights set out in the fundamental International Labour Organization conventions).

The baseline for DNSH is compliance with the relevant EU environmental legislation, with additional criteria where appropriate. DNSH criteria have been set out for the **70 priority climate change mitigation activities** identified in the TEG report⁵⁶.

Finally, a very important part of the Taxonomy Regulatory proposal is the **technical screening criteria** for a particular economic activity, for evaluating the significant contribution to reducing GHG emissions.

As shown in the table, the technical screening criteria for a particular economic activity relate to: 1. criteria for identifying material, physical climatic risks; 2. support system adaptation; and 3. monitoring adaptation results.

Table 6. Technical screening criteria for a particular economic activity

A1. REDUCING MATERIAL, PHYSICAL CLIMATE RISKS – The economic activity must reduce all material, physical climate risks to that activity to the extent possible and on a best effort basis.	
A1.1	The economic activity integrates physical and non-physical measures aimed at reducing – to the extent possible and on a best-effort basis – all material and physical climate risks to that activity, which have been identified through a risk assessment.
A1.2	The above-mentioned risk assessment has the following characteristics: it considers both the current weather variability and future climate change, including uncertainty; it is based on robust analysis of available climate data and projections across a range of future scenarios; it is consistent with the expected lifetime of the activity.
A2. SUPPORTING SYSTEM ADAPTATION – The economic activity and its adaptation measures do not adversely affect the adaptation efforts of other people, nature and assets.	
A2.1	The economic activity and its adaptation measures do not increase the risks of an adverse climate impact on other people, nature and assets, or hamper adaptation elsewhere. Consideration should be given to the viability of “green” or “nature-based” solutions over “grey” measures to address adaptation.
A2.2	The economic activity and its adaptation measures are consistent with sector-level, regional, and/or national adaptation efforts.
A3. MONITORING ADAPTATION RESULTS – The reduction of physical climate risks can be measured.	
A3.1	Adjustment results can be monitored and measured against defined indicators. Recognizing that risk evolves over time, it is necessary, whenever possible, to undertake updated assessments of physical climate risks, at an appropriate frequency.
Source: EU TEG, Taxonomy Report, Technical Annex, March 2020, p. 25.	

As shown in the table, the technical screening criteria for a particular economic activity relate to: 1. criteria for identifying material, physical climatic risks; 2. support system adaptation; and 3. monitoring adaptation results.

⁵⁶ For instance, production of electricity from wind power will meet the DNSH criteria related to the protection of eco-systems if an Environmental Impact Assessment (EIA) is carried out to recognized standards (e.g. under the EIA Directive 2011/92/EU), if the procedure for Appropriate Assessment in the Birds Directive (2009/147/EC) and the Habitats Directive (Council Directive 92/43/EEC) have been followed, and if any impacts on birds and bats and visual amenity have been minimized.

The proposed Taxonomy Regulation envisages **two** main mandatory users of the taxonomy:

- **Member States and the EU** when setting rules about financial products or corporate bonds that are marketed as environmentally sustainable; and
- **Financial market participants** offering financial products as environmentally sustainable investments (or as investments having similar characteristics). In essence, financial market participants are institutional investors and asset managers⁵⁷. Financial products include portfolio management, funds (UCITS⁵⁸ funds, alternative investment funds), insurance-based investment products, pension products and pension schemes.

The proposed Taxonomy Regulation does not require financial market participants to invest in taxonomy-eligible activities but, rather, to **disclose information** on how and to what extent the taxonomy has been applied to determine the **environmental sustainability** of the products they offer. Future **delegated acts** will further specify the information required to be disclosed to comply with this obligation.

In implementing the taxonomy, the TEG envisages that financial market participants will identify potentially taxonomy-eligible activities covered by a financial product and assess whether each activity meets the taxonomy's criteria. They will then need to calculate and disclose the percentage of the investment or investment portfolio that is comprised of environmentally sustainable activities (e.g. an infrastructure fund is 53% taxonomy-compliant). Ultimately, this is intended to put an end to "green-washing" and to increase capital flows to the financing of activities that will have a meaningful impact in achieving the EU's climate goals.

This is not to say that the taxonomy will not or cannot have other uses. For instance, it is expected to be used to define the characteristics of green bonds under the proposed **EU "Green Bond Standard"**⁵⁹, and may be used on a voluntary basis by others for green loans, green finance or ESG analysis.

The EU Taxonomy could also be used outside the EU, using analogous local laws and standards as appropriate.

Challenges and opportunities of using the EU Taxonomy:

- It is a challenge to **gathering quality data on a company's**: (i) revenue from, or expenditure on, taxonomy-eligible activities; (ii) performance against the screening and DNSH criteria (do no significant harm assessment); and (iii) social performance.
- To varying degrees, companies and data providers will need to invest time, money and human resources to be able to **disclose meaningful, comparable and quality information** that allows investors and asset managers to carry out a due diligence exercise against the taxonomy's requirements.
- Asset managers and institutional investors will similarly need the **systems and expertise** to fully analyse and apply this data.
- Other criticisms concerning the taxonomy's implementation largely relate to the perception that it

57 "Financial market participants" comprise any of the following: (i) an insurance undertaking which makes available an insurance-based investment product; (ii) an alternative investment fund manager; (iii) an investment firm which provides portfolio management; (iv) an institution or occupational retirement provision or a provider of a pension product; (v) a manager of a qualifying venture capital fund; (vi) a manager of a qualifying social entrepreneurship fund; and (vii) a UCITS management company.

58 UCITS – Undertakings for Collective Investment in Transferable Securities – is an open-ended investment fund with a public offering. This means that money is raised based on an offer open to anyone who wants to invest, whether small or professional investors.

59 The Commission has sought the TEG's assistance in developing an EU Green Bond Standard. The TEG published its final report in June 2019, which the Commission is currently considering.

will encourage the categorization of companies (and their activities) as either good (“**green**”) or bad (“**brown**”). Some say these risks creating a “green bubble”, whereby assets that are environmentally sustainable are artificially inflated, destabilizing the market and impacting the economic viability of financing such projects in the long term. Furthermore, the dichotomy of activities as good or bad could also create stranded assets, by **discouraging investment** in certain sectors and industries.⁶⁰

In relation to the PBPS project inception report (28 February 2020), the European Commission revised its list of priority NACE activities in March 2020, with a focus on climate change adaptation and climate change mitigation measures. Annex 1 provides a new overview, focusing on climate change adaptation measures. The list was expanded from 67 to **70 activity groups**.

- **Annex 1 – EU Taxonomy, revised document, March 2020 – Description of priority economic activities with significant contribution to GHG emissions.**

3.1. Next steps toward complete implementation of the EU Taxonomy on Green Activities and technical screening criteria

Through adoption of the Taxonomy Regulation, the European Commission, on the basis of the final report on the Taxonomy of Green Activities from March 2020, will develop legal instruments for bringing the taxonomy criteria into legal effect (complete and binding application) and the delegated act, which contains technical screening criteria, will be developed in two phases.

- The first technical screening criteria for activities that significantly contribute to **mitigation or adaptation to climate changes** will be adopted by the end of 2020 and will enter into force by the end of 2021.
- The second set of technical screening criteria covering **economic activities that substantially contribute to additional environment objectives** will be adopted by the end of 2021 and will enter into force by the end of 2022. Besides this, according to the TEG, the Commission will, by the beginning of June 2021, adopt a delegated act specifying how **corporate disclosure obligations** should be applied in practice. The EU has announced that it plans in the future to include economic activities in the taxonomy via a created **Platform on Sustainable Financing** that will functional by the end of 2020.

Besides the above-mentioned, the Commission will, by the beginning of June 2021, at the suggestion of the Technical Expert Group, adopt a delegated act that details how corporations will have to apply **disclosure obligations** (relevant data for review of green activities inside companies necessary for future investment decisions) in practice. The EU has announced that it plans in the future to include economic activities in the taxonomy via a created **Platform on Sustainable Financing** that will be functional by the end of 2020.

3.2. Montenegro, NACE classification and the EU Taxonomy

Montenegro adopted the **Law on the Classification of Activities** in early 2011 (“Official Gazette of Montenegro” No. 18/11). The basic definitions and rules for the correct application of the 2010 Industry Classifica-

⁶⁰ In response to these concerns, the TEG has highlighted that the taxonomy is a component of the broader EU Climate Strategy, which seeks to generate more sustainable activities to satisfy investor demand, and that the risk of creating stranded assets is generated not by the taxonomy, but by the implementation of climate policies and the lack of long-termism in investment decision making. By other words, if harnessed strategically, the taxonomy could represent a positive and important starting point.

tion are aligned with the definitions and rules for the application of the statistical classification of economic activities in the European Union, i.e. with Regulation (EC) No. 1893/2006 EP and Council of 20 December 2006 – which establishes the statistical classification of economic activities NACE Revision 2, and amending Council Regulation (EEC) No. 3037/90, as well as certain EC regulations on special statistical areas⁶¹ – which has been in force in the Member States of the European Union since 1 January 2008.

Classification provides development and publication of statistics according to economic activities. KD 2010 consists of four hierarchical levels that are marked as follows:

- The first level of classification is the **sector** and this is denoted by a single letter. Level 1: 21 sections denoted by the letters A to U;
- The second level of classification is **the area** and this is denoted by a two-digit number. Level 2: 88 divisions denoted by two-digit numerical codes (01 to 99);
- The third level of classification is **the branch** and this is denoted by a three-digit number. Level 3: 272 groups denoted by three-digit numerical codes (01.1 to 99.0);
- The fourth level of classification is **the group** and this is denoted by a four-digit number. Level 4: 615 classes denoted by four-digit numerical codes (01.11 to 99.00)⁶².

By use of the 2010 classification of activities, which **substantially and structurally fully corresponds to NACE Rev. 2**, high quality international comparability of statistical data is provided.

We can conclude that the system of classification of economic activities in Montenegro is harmonized with the system applied in the EU and in its Member States. In this context, Montenegro has an established legal framework and capacity to implement the EU classification (taxonomy) for sustainable activities.

4. The European Green Deal and COVID-19: Implications for EU climate policy

In late December 2019, a cluster of unexplained cases of pneumonia was reported in Wuhan, China. A few days later, the causative agent of this mysterious pneumonia was identified as a novel coronavirus. This causative virus was temporarily named as: severe acute respiratory syndrome coronavirus 2, and the relevant infected disease was named as: coronavirus disease 2019 (COVID-19) by the World Health Organization⁶³. With incredible speed, this health crisis has grown into a deep economic crisis that has spread across the world⁶⁴.

The pandemic disease COVID-19 continues to spread into the integrated world, especially from human to human, with no vaccine to check such an outbreak. No health system on the globe is capable of stopping the virus. The initial centre of the epidemic was in China, and after four weeks, other epicentres were identified, such as: Japan, Iran, Italy, Spain, Germany, United Kingdom, United States, and others around the globe. The uncertainty about the emergence of new cases and locations is not silent. The World Health Organization (WHO) declared the new coronavirus outbreak a Public Health Emergency of International Concern (PHEIC)

61 Regulation (EC) No 1893/2006 of the EP and the Council of 20 December 2006 establishing the statistical classification of economic activities NACE Revision 2 and amending Council Regulation (EEC) No 3037/90, as well as certain EC Regulations on specific statistical domains/REGULATION (EC) No. 1893/2006 of the EP and the Council of 20 December 2006 establishing the statistical classification of economic activities NACE Revision 2 and amending Council Regulation (EEC) No 3037/90, as well as certain EC Regulations on specific statistical domains, <https://eur-lex.europa.eu/legal-content/GA/TXT/?uri=CELEX:32006R1893>.

62 MONSTAT, <http://www.monstat.org/cg/page.php?id=107&pageid=107>.

63 He, F., Deng, Y., Li, W. (2020). Coronavirus disease 2019: What we know?, Journal of Medical Virology. 14 March 2020, <https://doi.org/10.1002/jmv.25766>.

64 Djurovic, G., Djurovic, V., Bojaj, B.M. (2020). The Macroeconomic Effects of COVID-19 in Montenegro: A Bayesian VAR Approach, (manuscript submitted on 22 April 2020 to Financial Innovation, A Springer OA Journal, SSCI indexed journal).

on 31 January 2020.

The global economy is projected to contract sharply by –3% in 2020 as a result of the COVID-19 pandemic, a much worse contraction than during the 2008–09 financial crises (IMF, WEO, April 2020⁶⁵). The IMF's projection for the **EU is a –7.1% decrease in GDP in 2019**. For the SEE region, the IMF's projections for the decrease in GDP real growth rates range from 3% for Serbia, –4% for North Macedonia, –5% for Albania, Bosnia and Herzegovina and Kosovo, to –9% for Montenegro and Croatia.

Table 7. Summary of world output, projections (annual percentage change, real GDP growth rates)

	2018	2019	2020	2021
World	3.6	2.9	–3.0	5.8
Advanced economies	2.2	1.7	–6.1	4.5
European Union (EU27 since 2020)	2.3	1.7	–7.1	4.8
Euro Area (19)	1.9	1.2	–7.5	4.7
Other selected countries/groups				
Advanced economies	2.2	1.7	–6.1	4.5
United States	2.9	2.3	–5.9	4.7
Japan	0.3	0.7	–5.2	3.0
United Kingdom	1.3	1.4	–6.5	4.0
Emerging and developing Asia	6.3	5.5	1	8.5
China	6.7	6.1	1.2	9.2
India	6.1	4.2	1.9	7.4
Russia	2.5	1.3	–5.5	3.5
Western Balkans				
Albania	4.1	2.2	–5.0	8.0
Bosnia and Herzegovina	3.6	2.7	–5.0	3.5
Kosovo	3.8	4.0	–5.0	7.5
Montenegro	5.1	3.6	–9.0	6.5
North Macedonia	2.7	3.6	–4.0	7.0
Serbia	4.4	4.2	–3.0	7.5
Source: MMF, WEO, April 2020;				

The projections for 2021 are explained as period of **gradual recovery**. Assuming the pandemic fades in the second half of 2020 and that policy actions taken around the world are effective in preventing widespread firm bankruptcies, extended job losses and system-wide financial strains, the IMF projects global growth in 2021 to rebound to 5.8%.

The full extent of the impact is difficult to quantify, given the evolving nature of the pandemic, but job losses and an increase in poverty are expected. According to the IMF projections, the cumulative loss to global GDP over 2020 and 2021 from the pandemic crisis could be around **\$9 trillion**, greater than the economies of

65 IMF, WEO, April 2020, (<https://www.imf.org/en/~media/E3E05B38F9F342598E9D36A8B244DE1F.ashx>).

Japan and Germany, combined⁶⁶.

It is very likely that this year the global economy will experience its worst recession since the Great Depression, surpassing that seen during the global financial crisis a decade ago. The Great Lockdown, as one might call it, is projected to shrink global growth dramatically. A partial recovery is projected for 2021, with above-trend growth rates, but the level of GDP will remain below the pre-virus trend, with considerable uncertainty about the strength of the rebound.

The important question in our project is: What are the implications of the COVID-19 pandemic on the European Green Deal?

Climate change policy cannot be the first priority of the EU for the immediate future. However, in spite of the coronacrisis the urgency of climate change mitigation has not disappeared. The post-corona recovery can both put the EU's decarbonization progress back on track – after low-carbon investments inevitably take a hit – but also the EU's Green Deal proposals can likewise **support** the general economic recovery.

It will be important to ensure that **recovery measures** are compatible with the priorities of global climate change and of the European Green Deal, so that stimulus money will flow into economic activities that have a place in a climate-neutral world. As time passes, the relaunch may actually offer a unique opportunity for the EU to live up to the Green Deal's promise of economic modernization along the Paris decarbonization objectives.

The period we have until the relaunch should be used to develop a new agenda. These ideas will not per se be off-the-shelf, but will go beyond the current solutions for decarbonization. Instead of tinkering around the margins, the EU should focus on transformational technologies and, for example, go big on low-carbon infrastructure, efficient buildings, and lead markets to boost demand for climate-neutral industry⁶⁷.

⁶⁶ <https://blogs.imf.org/2020/04/14/the-great-lockdown-worst-economic-downturn-since-the-great-depression/>.

⁶⁷ Elkerbout, M., Egenhofer, C., Núñez Ferrer, J., Cătuți, M., Kustova, I., & Rizos, V. The European Green Deal after Corona: Implications for EU climate policy, CEPS, Brussels, 31 March 2020, <https://www.ceps.eu/ceps-publications/the-european-green-deal-after-corona/>.

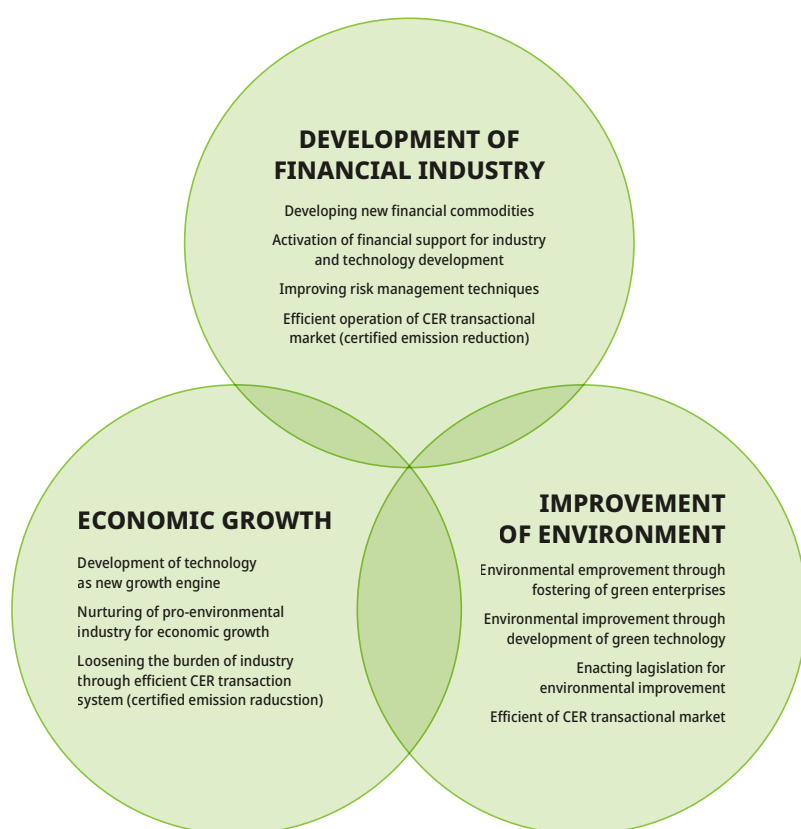
III. GREEN BONDS

One of the projects results is to give a comprehensive overview of the functioning of the green bond market globally and in the EU, and its on-going development and specific sectors. At the same time, one of the options for Montenegro to secure the missing funds is through the issuing of green bond.

1. Financial strategies to accelerate green growth

In the conditions of the global trend and the need to preserve the environment and sustainable economic development, there is a need to define a green concept in finance, which primarily refers to the development of new financial instruments. The term **green finance** still does not have a universal definition. One of the first authors to deal with green finance infrastructure is **Hee Jin Noh**⁶⁸, who views **green finance** as a concept that combines finance (financial industry) and business (growth-oriented) with environmental behaviour (improvement and environmental protection). It is the intertwining of the financial sector, the environment and sustainable economic development that directs the business of financial institutions in the direction of creating green products and services. According to Noh, the areas of overlap in the next scheme are room for the development of green finance.

Scheme 2. Definition of green finance

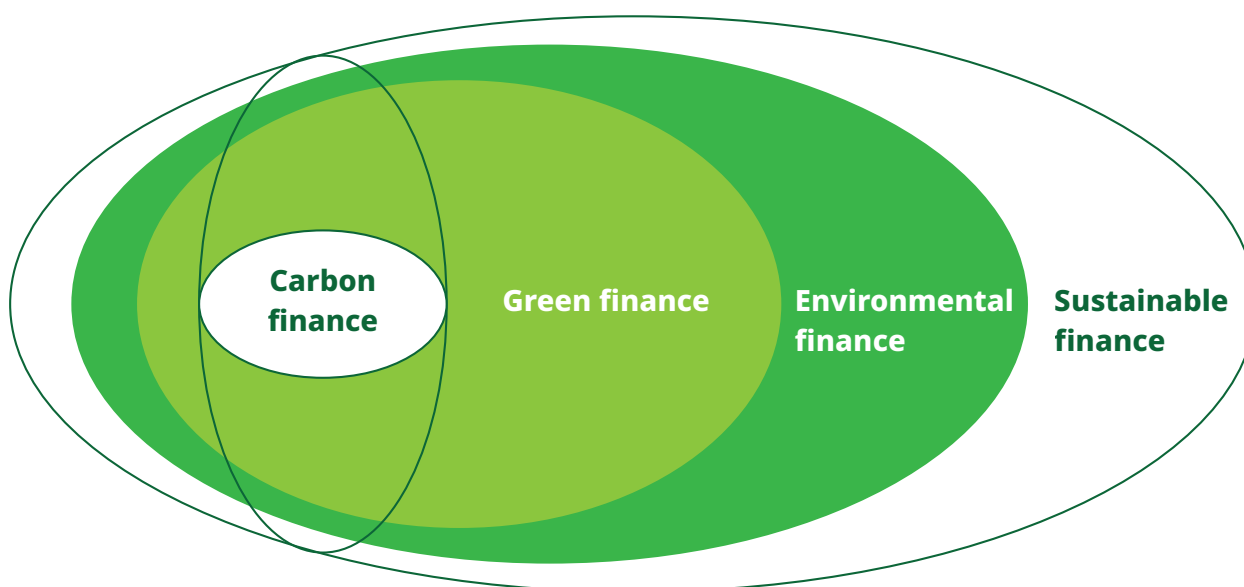


Green finance is a type of future-oriented financing that simultaneously follows the development of the financial industry, the improvement of the environment and economic growth. Green finance should include: financing green companies and technologies, developing green financial products and green investors, considering environmental risks when evaluating loans, as well as the efficient issuing of green securities and trading on markets. In other words, they should include those financial products that take into account the environment, energy efficiency and the reduction of pollutant emissions, in order to support low-carbon growth.

68 Noh, H.J. (2019) Financial Strategies to Accelerate Green Growth. In: Sachs, J., Woo, W., Yoshino, N., Taghizadeh-Hesary, F. (eds). Handbook of Green Finance. Sustainable Development. Springer, Singapore.

There are several concepts related to green finance: sustainable financing, environmental financing, financing the reduction of GHG emissions and financing overall climate actions. The relationship of these concepts is shown in Scheme 3 below. Financing sustainable development is the practice of creating economic and social value through financial models, products and markets that are sustainable over time⁶⁹ (University of California, Berkeley). It takes into account investments that are more expansive, comprehensive and inclusive, respecting not only the environmental aspect but also the social aspect and governance issues. Environmental financing is financing with a focus on the environment (air, water, land, etc.), where it is prohibited to finance projects that harm or could potentially harm the environment. This concept is broader than green finance in that it focuses on environmental protection, which may not contribute to economic growth. GHG emission reduction financing (low-carbon financing) provides resources for projects aimed at reducing emissions of carbon dioxide and other GHG gases. It is developed through the emissions trading system. Climate finance supports climate change adaptation and mitigation activities to achieve a low-carbon economy and implement climate-resilient development. This concept also supports adaptation projects that are not covered by the previous model.

Scheme 3. Relationship between green financing and other related financing concepts⁷⁰



In 2016, the **Green Finance Study Group G20** described green finance as “financing investments that provide environmental benefits in the broader context of sustainable environmental development”. All this includes definitions at the level of financial instruments (green indices or green bonds) and financial market subsectors (green insurance or green banking).⁷¹

It is the intertwining of the financial sector, the environment and sustainable economic development that directs the business of financial institutions in the direction of creating green products and services. New technologies, financial products, industry and services must take into account the environment, energy efficiency and the reduction of pollutant emissions.

69 University of California, Berkeley (2017) Berkeley sustainable business and investment forum, <https://responsiblebusiness.haas.berkeley.edu/events/bsbif.html>.

70 Noh, H.J. (2019). Financial Strategies to Accelerate Green Growth. In: Sachs, J., Woo, W., Yoshino, N., Taghizadeh-Hesary, F. (eds). Handbook of Green Finance. Sustainable Development. Springer, Singapore.

71 G20 Green Finance Study Group, G20 Green Finance Synthesis Report, 2016 (https://unepinquiry.org/wp-content/uploads/2016/09/Synthesis_Report_Full_EN.pdf).

2. Analysis of the green bond market and an overview of its functioning, current development and key bottlenecks

Green bonds are debt instruments used to finance green projects that deliver environmental benefits. A green bond is differentiated from a regular bond by its commitment to use the funds raised to finance or re-finance “green” projects, assets or business activities. Green bonds can be issued by either public or private actors up front to raise capital for projects or for refinancing purposes, freeing up capital and leading to increased lending.

The green bond project definitions and requirements for disclosure of the use of proceeds are the basis for developing a credible green bond market by avoiding misuse of a “green washing”⁷².

Globally, the most widely accepted standards are **the Green Bond Principles (GBP)**⁷³, a set of voluntary guidelines elaborated by key market participants under the coordination of ICMA (International Capital Markets Associations), and **the Climate Bonds Standard**, which also includes sector-specific criteria, developed by scientific experts under the stewardship of the **Climate Bonds Initiative (CBI)**⁷⁴.

The green bond market can offer several important **benefits** for green investment:

- a) Providing an additional source of green financing.** Given the immense green investment needs, bonds are one appropriate financing instrument to address such projects. As traditional sources of debt financing will not be sufficient in light of the immense green investment needs, there is a need to introduce new means of financing that can leverage a wider investor base including institutional investors (such as pension funds, insurance companies, etc.).
- b) Enabling more long-term green financing by addressing maturity mismatch.** In many countries, the ability of banks to provide long-term green loans is constrained due to the short maturity of their liabilities and a lack of instruments for hedging duration risks. Corporates that can only access short-term bank credit also face refinancing risks for long-term green projects. If banks and corporates can issue medium- and long-term green bonds for green projects, these constraints on long-term green financing can be mitigated.
- c) Enhancing issuers’ reputation and clarifying environmental strategy.** Issuing a green bond is an effective way to develop and implement a credible sustainability strategy to investors and the general public by clarifying how proceeds raised will contribute to a pipeline of tangible environmental projects. Green bonds can thus help enhance an issuer’s reputation along with internal sustainable development policies, as this is an effective way for the issuer to display its commitment towards improving environmental sustainability. These enhancements may result in benefits for product marketing as well as potential government policy incentives for business operations. Setting up a green bond framework also can serve to upgrade issuers’ environmental risk management process due to their commitment to “green” disclosure.

⁷² Using marketing to present an organization’s products, activities, or policies as environmentally friendly, even though they are not.

⁷³ Green Bonds Principles, <https://www.icmagroup.org/green-social-and-sustainability-bonds/green-bond-principles-gbp/>.

⁷⁴ Green Bonds: Country Experiences, Barriers and Options, prepared by the Organisation for Economic Cooperation and Development (OECD), International Capital Markets Association (ICMA), Climate Bonds Initiative (CBI), and the Green Finance Committee (GFC) of China Society for Finance and Banking, 2016, (http://unepinquiry.org/wp-content/uploads/2016/09/6_Green_Bonds_Country_Experiences_Barriers_and_Options.pdf).

- d) Offering potential cost advantages.** While the cost advantage is not yet evident in the current nascent green bond market, it is possible that, once the market attracts a wider investor base both domestically and internationally, a better pricing for green bonds vs. regular bonds may emerge provided demand is sustained. According to the CBI, a number of issuers also report a benefit in the increased speed of “book building” (i.e. the process of generating, capturing, and recording investor demand for a bond issue), which translates into reduced costs for marketing and road shows. In some countries, government incentives, such as tax reduction, interest subsidies and credit guarantees, are also being discussed as options for further reducing the funding costs for green bonds, with the US having already experimented in this area with green property bonds and municipal bonds.
- e) Facilitating the “greening” of traditionally brown sectors.** The aforementioned benefits of the green bond market can function as a transition mechanism that encourages issuers in less environmentally-friendly sectors to take part in the green bond market (provided they ring-fence the proceeds for green projects) and also to reduce their environmental footprint by engaging in green investment activities that can be funded via a green bond. This complements mandatory ‘real economy’ policies that lead to changes in business models (such as “carbon pricing” – including the cost of environmental pollution with carbon in the price of the product itself⁷⁵, waste reduction and recycling targets, policies to promote the circular economy, etc.).
- f) Making new green financial products available** to responsible and long-term investors⁷⁶.

Green bonds are any type of bond instrument where the proceeds will be exclusively applied to finance or refinance, in part or in full, new and/or existing eligible green projects and which are aligned with **the four core components of the GBP**:

- 1. Use of proceeds** – all designated Green Projects should provide clear environmental benefits, which will be assessed and, where feasible, quantified by the issuer. The GBP explicitly recognize several broad categories of eligibility for Green Projects, which contribute to environmental objectives such as: climate change mitigation, climate change adaptation, natural resource conservation, biodiversity conservation, and pollution prevention and control.

The eligible Green Project categories include, but are not limited to:

- renewable energy (including production, transmission, appliances and products);
- energy efficiency (such as in new and refurbished buildings, energy storage, district heating, smart grids, appliances and products);
- pollution prevention and control (including reduction of air emissions, greenhouse gas control, soil remediation, waste prevention, waste reduction, waste recycling and energy/emission-efficient waste to energy);
- environmentally sustainable management of living natural resources and land use (including sustainable agriculture; environmentally sustainable animal husbandry; climate smart farm inputs, such as: biological crop protection or drip-irrigation; environmentally sustainable fishery and aquaculture; environmentally-sustainable forestry, including afforestation or reforestation, and preservation or restoration of natural landscapes); terrestrial and aquatic biodiversity conservation (including the protection of coastal, marine and watershed environments);

⁷⁵ A carbon price is a cost applied to carbon pollution to encourage polluters to reduce the amount of greenhouse gases they emit into the atmosphere. Economists widely agree that introducing a carbon price is the single most effective way for countries to reduce their emissions. It is internalization of the costs of future environmental damage in the price of product whose production led to the GHG emission. It usually takes the form either of a carbon tax or a requirement to purchase permits to emit, generally known as carbon emissions trading, but also called “allowances” (<http://www.lse.ac.uk/GranthamInstitute/faqs/what-is-a-carbon-price-and-why-do-we-need-one/>).

⁷⁶ Op. cit. pp. 5-6.

- clean transportation (such as electric, hybrid, public, rail, non-motorized, multi-modal transportation, infrastructure for clean energy vehicles and reduction of harmful emissions);
 - sustainable water and wastewater management (including sustainable infrastructure for clean and/or drinking water, wastewater treatment, sustainable urban drainage systems and river training and other forms of flooding mitigation);
 - climate change adaptation (including information support systems, such as climate observation and early warning systems);
 - eco-efficient and/or circular-economy-adapted products, production technologies and processes (such as development and introduction of environmentally sustainable products, with an eco-label or environmental certification, resource-efficient packaging and distribution);
 - green buildings which meet regional, national or internationally recognized standards or certifications.
2. **Process for Project Evaluation and Selection** – The issuer of a green bond should clearly communicate to investors: the environmental sustainability objectives; the process by which the issuer determines how the projects fit within the eligible Green Projects categories identified above; the related eligibility criteria, including, if applicable, exclusion criteria or any other process applied to identify and manage potentially material environmental and social risks associated with the projects.
 3. **Management of Proceeds** – The net proceeds of the green bond, or an amount equal to these net proceeds, should be credited to a sub-account, moved to a sub-portfolio or otherwise tracked by the issuer in an appropriate manner, and attested to by the issuer in a formal internal process linked to the issuer's lending and investment operations for green projects. The GBP encourage a high level of transparency and recommend that an issuer's management of proceeds be supplemented by the use of an auditor, or other third party, to verify the internal tracking method and the allocation of funds from the green bond proceeds.
 4. **Reporting** – Issuers should make, and keep readily available up-to-date information on the use of proceeds to be renewed annually until full allocation, and on a timely basis in case of material developments. The annual report should include a list of the projects to which the green bond proceeds have been allocated, as well as a brief description of the projects and the amounts allocated, and their expected impact. Where confidentiality agreements, competitive considerations, or a large number of underlying projects limit the amount of detail that can be made available, the GBP recommend that information is presented in generic terms or on an aggregated portfolio basis (e.g. percentage allocated to certain project categories)⁷⁷.

It is recommended that in connection with the issuance of a green bond or a programme, issuers appoint (an) external review provider(s) to confirm the alignment of their bond or bond programme with the four core components of the GBP as defined above.

⁷⁷ Green Bond Principles – Voluntary Process Guidelines for Issuing Green Bonds, ICMA, June 2018, pp. 2–6, (<https://www.icmagroup.org/assets/documents/Regulatory/Green-Bonds/June-2018/Green-Bond-Principles---June-2018-140618-WEB.pdf>).

2.1. Trends in the green bond market

The green bond market emerged in 2007–08 with the first few issuances by multilateral development banks. From 2007 to 2012, the market mainly featured the issuing of green bonds by so called SSA actors⁷⁸, such as the European Investment Bank and the World Bank (International Finance Corporation – IFC), along with a few local government funding agencies, municipalities and national development banks.

There are currently **four types of green bonds** (additional types may emerge as the market develops and these will be incorporated into annual GBP updates)⁷⁹:

- **Standard Green Use of Proceeds Bond:** a standard recourse-to-the-issuer debt obligation.
- **Green Revenue Bond:** a non-recourse-to-the issuer debt obligation in which the credit exposure in the bond is to the pledged cash flows of the revenue streams, fees, taxes, etc., and whose use of proceeds goes to related or unrelated green project(s).
- **Green Project Bond:** a project bond for a single or multiple green project(s) for which the investor has direct exposure to the risk of the project(s) with or without potential recourse to the issuer.
- **Green Securitized Bond:** a bond collateralized by one or more specific green project(s), including but not limited to covered bonds, ABS, MBS⁸⁰ and other structures.

With growing market appetite for such bonds there has been increasing diversification of issuers and investors participating in the green bond market. Progressive green bond and loan issuance for 2019 passed \$202.2 bn as of 22 October 2019⁸¹ and \$257 bn by 2019 in total.

Bonds which are verified as conforming with the Climate Bonds Standard are called **Certified Climate Bonds**. The benefits of certification for users are: robust label – credible standard, more diverse investor base, easier-to-find credible green/climate bond, enhanced reputation and lower costs. Investors can use the Climate Bonds Standard as a screening tool to assure the low-carbon nature and integrity of their fixed-income investments. By mid-2020, there were **\$120 billion of certified Climate Bonds** in the CBI base.

For the time being, according to the **Climate Bonds Initiative** (CBI)⁸², money raised through green bonds is most commonly used to fund projects in the **renewable energy sector**. The 2017 report, however, states that this sector's share is shrinking, with significant increases in allocations for the construction of "green" buildings, i.e. **energy-efficient and low-CO₂ buildings**. Projects related to waste and land management have the smallest share of funding through these bonds, precisely because of controversy over what might qualify as a "green" or sustainable venture.

⁷⁸ Sovereign, Supranational and Agency (SSA).

⁷⁹ Green Bond Principles, Voluntary Process Guidelines for Issuing Green Bonds, June 2018, <https://www.icmagroup.org/assets/documents/Regulatory/Green-Bonds/Green-Bonds-Principles-June-2018-270520.pdf>.

⁸⁰ Securitization is one of the most important financial innovations, often tied to bonds. It originally meant replacing bank loans by issuing securities. Later, securitization becomes a process of transforming the bank's illiquid financial assets into marketable securities. The basis of securitization are mortgage loans, from which pools are formed and on the basis of which securities (MBS – mortgage-backed securities) are issued. In the second case, the most frequently used assets for securitization are leasing contracts, vehicle loans and credit card receivables – securitization of securities secured by assets (ABS – asset-backed securities). The purpose of securitization is greater marketability of assets. Significance is reflected in the release of capital that can be used for other operations as well as the reduction of credit risk.

⁸¹ Climate Bonds Initiative, <https://www.climatebonds.net/2019/10/green-bond-issuance-tops-200bn-milestone-new-global-record-green-finance-latest-climate>.

⁸² The Climate Bonds Initiative is an international, investor-focused not-for-profit organization – the only organization working solely on mobilizing the \$100 trillion bond market for climate change solutions (<https://www.climatebonds.net/>).

Table 8. Ten biggest green bonds/loans – CBI, 2019

Issuer	Amount issued (bn)	Issue currency	USD eqv. (bn)	Climate Bonds Certified	Sector
Dutch State Treasury Agency	5.99	EUR	6.66	✓	Energy, buildings, transport, water
KfW	3	EUR	3.36		Energy, buildings
Industrial Bank Co., Ltd.	20	CNY	2.91		Energy, buildings, transport, water, waste
Republic of France	2.47	EUR	2.77		Energy, buildings, transport, waste, land use, A&R
ACWA Power (Silk Road Fund, UAE)	2.69	USD	2.69	✓	Energy
ICBC	2.5	USD	2.5		Energy, transport, water supply
Société du Grand Paris	2	EUR	2.27	✓	Transport
Republic of Poland	2	EUR	2.24		Energy, transport, land use
National Treasury Management Agency	2	EUR	2.21		Energy, buildings, transport, waste, land use, A&R
KfW	2	USD	2		Energy, buildings
Source: Green Bonds Initiative, October 2019 ⁸³					

The top 15 2019 green bond issuances by country: US, FR, CN, DE, NL, supranational, SE, ES, JP, IT, CA, South Korea, UAE, India, Australia, IE.

Stock exchanges play a vital role in providing market access. Dedicated **green bond lists** have been crucial in showcasing green bonds. The green bond lists on stock exchanges are useful for improving the visibility of green bonds to investors, and encourage secondary market trading. Numerous stock exchanges have launched a dedicated green bond or sustainable bond section⁸⁴.

Barriers to scaling up the green bond market: Many medium- and long-term green projects with steady cash flows are good candidates for financing by the bond market. However, the bond market, which currently provides about one-third of total financing for corporates globally, has yet to play a comparable role in green financing. The potential for scaling up the green bond market is tremendous. In the short term this will depend on policy, market and institutional barriers constraining its development being addressed; in the longer term the primary constraint is the slow pace of development of climate change mitigation and adaptation investments by governments. There are several challenges to the growth of the green bond market and their importance may vary for different markets. The selection of these challenges is supported by the results of a GFSG⁸⁵ survey on “barriers to scaling up the green bond market”. This GFSG survey received responses from

⁸³ The five largest green bonds/loans issued in 2019 so far are from: the Dutch State Treasury Agency* – €5.99 bn (\$6.66 bn), KfW – €3 bn (\$3.36 bn), Chinese Industrial Bank Co. Ltd. – CNY20.0 bn (\$2.91 bn), Republic of France – €2.47 bn (\$2.77 bn) and Noor Energy 1 (ACWA Power, Silk Road Fund, UAE)* – \$2.69 bn green loan, funding the single largest concentrated solar power (CSP) site in the world, <https://www.climatebonds.net/2019/10/green-bond-issuance-tops-200bn-milestone-new-global-record-green-finance-latest-climate>.

⁸⁴ Oslo, Stockholm, London, and Shanghai, Mexico Stock Exchange, Luxembourg, Borsa Italiana, Taipei, Johannesburg, Japan Exchange Group, Vienna, Nasdaq Helsinki, Nasdaq Copenhagen, Nasdaq Baltic, The International Stock Exchange, Frankfurt, Moscow and Euronext, (<https://www.climatebonds.net/green-bond-segments-stock-exchanges>).

⁸⁵ The G20 Green Finance Study Group (GFSG).

a group of 24 key investors, issuers and intermediaries in the green bond market. According to the survey results, 74% of respondents confirmed as being important barriers “a lack of awareness of green bond benefits”; 43% stated “a lack of local definition of green bonds”; 41% mentioned “the high cost of meeting green bond requirements”; 56% indicated “a lack of ratings, indices and listings; 55% pointed to “a lack of targeted incentives for green bond issuers”; 67% said “difficulties for international investors to access local green bond markets”, and 59% cited “a lack of domestic green investors”⁸⁶.

The International Finance Corporation (IFC), a member of the World Bank Group, also believes that green bonds could play a significant role in fundraising, but warns that the market is problematic for several reasons: first of all, there is no global agreement on what is considered to be a “green” project and there is no widely accepted system of mandatory reporting on the environmental impact of such projects. That is why there are different controversies in the green bond market, so the question is whether traditional energy companies can represent themselves as “green” because they will finance a reduction of, instead of completely eliminating greenhouse gas emissions.

2.2. Analysis of the role of the public sector and the possibility of strengthening the green bond market by implementing specific measures in the public sector

Issuing bonds is the collection of long-term funds by issuing bonds. Depending on the type of issuer, bonds can be issued by the state, local authorities, a company, a bank or other financial organization. Government bonds are issued by the state or by some of its bodies or agencies. Local government bonds or municipal bonds are issued by local authorities – regions, municipalities, cities, etc. With corporate bonds, as the name suggests, companies appear in the role of issuer.

In the document “Green Bonds: Country Experiences, Barriers and Options” interesting experiences are presented for Sweden and France (2016). In the CBI database of certified climate bonds, green bonds are also issued by the following European countries: Belgium, the Netherlands, Germany, Greece, Italy, Luxembourg, Norway, Poland and the UK (10 countries in total).

2.2.1. The Netherlands

On 21 May 2019, the State of the Netherlands was the first country with a triple-A rating to issue a green bond (DSL⁸⁷). By issuing a green bond, the Netherlands aims to further enhance and support the establishment of a robust green capital market.

The State of the Netherlands is one of the founding members of the European Union, committed to the UN Sustainable Development Goals as well as to the Paris Agreement on Climate Change. In addition to alignment with the EU’s established goal of reducing GHG emissions, the Netherlands has set its own national target of a 49% reduction of GHG emissions by 2030, compared to 1990 levels. In conjunction with its quantitative climate change goals, the Netherlands established the Delta Programme to ensure that flood risk management, freshwater supply and spatial planning will be climate-proof and water-resilient by 2050.

The State of the Netherlands has engaged **Sustainalytics** to review and verify that the State of the Netherlands’ green bond meets the requirements under the: (i) solar energy, (ii) marine renewable energy, (iii)

⁸⁶ Green Bonds: Country Experiences, Barriers and Options, 2016, pp. 28–29.

⁸⁷ DSL – Dutch state loans.

water infrastructure, (iv) low-carbon buildings, and (v) low-carbon land transportation criteria of the Climate Bonds Standard. Sustainalytics is a leading independent ESG⁸⁸ and corporate governance research, ratings and analytics firm that support investors around the world with the development and implementation of responsible investment strategies.

Sustainalytics concluded that the State of the Netherlands' inaugural green bond is credible, meaningful and in line with the basic elements of the International Capital Market Association's (ICMA) green bond principle. In addition, the green link is certified by the Climate Bond Initiative and meets specific climate criteria⁸⁹.

Table 9. Dutch State Treasury Agency: Green Bonds, DSL 0.50%, 15 January 2040

Key transaction facts		Overview
Issuer	The State of the Netherlands	The new 20-year green DSL ***: the DSTA issued €5,985,004,000 in the DSL 0.50% 15 January 2040
Issuer Type	Sovereign	
Ratings	Aaa/AAA/AAA	<ul style="list-style-type: none"> • The DSTA (Dutch State Treasury Agency) launched its inaugural 20-year green bond via a Dutch Direct Auction (DDA). • Prior to the auction, 32 investors were registered as green investors, allowing these investors to benefit from priority allocation over other real money investors. • The order book was closed with a total bid volume of €21.2 billion. An amount of almost €6 billion was allocated. • A coupon is the amount of interest that an investor receives as a bondholder. • The allocated amount went to a wide variety of investors (investor types: Pension funds and insurance companies – 33%; asset and fund managers – 31%; hedge funds – 14%; bank & trusts – 11%; treasuries and ALM accounts of banks – 8%; central banks, agencies and supranationals – 4%). • Geographical distribution of investors: NL – 34%; UK – 18%; DK – 10%; USA – 8%; DE – 7%; FR – 5%; IT – 4%; ED – 3%; FI – 3%; other – 9%). • Use of proceeds: Solar power plant, offshore wind, certified buildings, passenger trains, water distribution, flood protection – Delta Plan, the world's most advanced and sophisticated floodplain management system) • The Green DSL 0.50% 15 January 2040 will be reopened several times in the coming years to reach an outstanding amount of around €10 billion.
Allocated size	€5,985,004,000	
Allocated to Green Investor	€1,705,946,000	
Total book	21,184,402,000	
Bid-to-cover*	3.54	
Issuance yield	0.557%	
Issuance price	€98.89	
Maturity	15 January 2040.	
Coupon	0.005	
Settlement	21 May 2019	
Law	Dutch law, CACs**	
ISIN	NL0013552060	
Listing	Euronext AMS	
Certification verifier	Sustainalytics	
* Ratio of the nominal value of the total offer and the nominal value of the sold bonds;		
** Collective action clauses; *** DSL – Dutch state loans;		
https://www.climatebonds.net/files/files/2019-05%20NL%20State%20of%20Netherlands.pdf ; www.dsta.nl		

⁸⁸ ESG (Environmental, Social and Governance) investing refers to a class of investing that is also known as “sustainable investing”. This is an umbrella term for investments that seek positive returns and long-term impact on society, environment and the performance of the business.

⁸⁹ Pre-Issuance Verification Letter, The State of the Netherlands, Sustainalytics, March 2019; <https://www.dsta.nl/binaries/dsta/documenten/publicaties/2019/04/08/state-of-the-netherlands-pre-issuance-cbi-certification-letter/State+of+the+Netherlands+Pre-Issuance+CBI+Certification+letter.pdf>.

For the DSTA, one of the highlights in 2019 was the launch of our first green bond, with an impressive bid-to-cover of 3.54 and more than 25% allocated to 'green investors'. In this Dutch Direct Auction, an amount of €6.0 billion was issued at a yield of 0.557%. The book at closing had reached €21.2 billion in bids, a significant number for a 20-year bond.

The issuance of green bonds is followed by the **evaluation and selection of eligible green expenditures**. This falls under the responsibility of the interdepartmental Green Bond Working Group, in which the Dutch State Treasury Agency (DSTA) of the Ministry of Finance, other relevant departments within the Ministry of Finance, the Ministry of Economic Affairs and Climate and the Ministry of Infrastructure and Water Management are represented. The interdepartmental Green Bond Working Group bases its selection on eligible green expenditures proposed by the DSTA. This Working Group assesses whether the inclusion of expenditures is possible, it checks whether expenditures meet the criteria and definition of eligible green expenditures in the Green Bond Framework, and approves the **final selection** of eligible green expenditures.

Table 10. State of the Netherlands Green Bond Report 2020

Description	Total expenditures 2018-2019			Impact table		
	Total ex- penses (in mil- lion €)	Expenses allocated to green bond (in million €)	Type of green ex- penditure	Impact metric avoided CO ₂	Result indicators	Impact metric other
Renewable energy (SDG 7) – 17%				3.13 Mton + 3.22 Mton = 6.35 Mton	20,201 projects 3,463 MW subsi- dized production capacity	38.74 PJ production of renewable energy, 10,770 min kWh
Stimulation of Sustainable Energy Produc- tion (SDE)	1,023	1,023	Subsidy			
Offshore wind energy	712	364				
Onshore wind energy	285	151				
Solar energy	26	13				
Energy Efficiency (SDG 7 & 11) – 4%				0.05 Mton + 0.08 Mton = 0.13 Mton	74,743 rental housing units, 299,009 label steps	Annual energy sav- ing: 1,268 PJ 580 GWh
Energy savings in the rental housing sector	240	240	Subsidy			
Clean Transportation (SDG 9 & 11) – 50%				0.18 Mton + 0.18 Mton = 0.36 Mton	5 realized rail- way projects, 14,211 km of rail- way tracks, invest- ment maintained in 47 projects	21 billion rail pas- senger kilometres in 2018, data for 2019 not available yet
Maintenance and management of railway infrastructure, development of railway in- frastructure for passenger rail	3,886	2,985	76.7% opera- tional expen- ditures and 23.3% direct investment			
Management, maintenance and replace- ment	2,972	2,285				
Construction	701	536				
Integrated contract forms	286	220				
Interest and redemptions	20	15				
Receipts	–93	–71				

Climate change Adaptation and Sustainable Water Management (SDG 6 & 13) – 29%						
Delta Fund	1,736	1,737				
Flood risk management Investments	611	611				
Freshwater supply investments	11	11				
Management, maintenance and replacement	403	403				
Experimentation	41	41				
Network related costs and other expenditures	624	624				
Water quality investments	48	48				
Total expenditure	6,885	5,985				

Source: <https://english.dsta.nl/binaries/dsta-english/documents/publication/2020/05/28/green-bond-report/Green+bond+report.pdf>

As it is previously mentioned, the Green Bond Framework distinguishes four expenditure categories for which the green bond proceeds can be used: Renewable Energy, Energy Efficiency, Clean Transportation, and Climate Change Adaptation & Sustainable Water Management.

In 2020 the DSTA will publish **the first report on allocation and impact**⁹⁰, which contains a detailed overview of allocated funds by projects, presentation of performance indicators (shown in the following table), selected case studies for larger projects and further investment and development plan of green bond market capital in the Netherlands. The DSTA's policy remains focused on consistency and transparency, while maintaining sufficient liquidity, with acceptable costs and risks.

The DSTA has issued the **2020 Outlook**⁹¹ in which the State of the Netherlands, in a transparent and comprehensive way, presents the issuance of green bonds in 2020 and other information: the economic prospects of countries, funding and issuance, financing plan, the 2020–2025 debt management policy, primary dealers and secondary markets, etc.

Also in June 2019, the government concluded a '**Climate Agreement**' with a large group of stakeholders (over 100 parties signed this agreement). The agreement is aimed at implementing measures to achieve a target of 49% reduction of greenhouse gas emissions by 2030 compared to 1990. For 2050, the goal is a 95% reduction. These goals are set down in the Climate Law. Next to the significant environmental impact, this ambitious climate policy also provides opportunities for the Dutch economy, prosperity and earning capacity. The government's priority is to achieve the targets in a way that is feasible and affordable for everyone, through an approach that is cost-effective and future-proof. An additional budget has been made available to implement measures to reach the targets. These funds will be spent on a variety of measures, such as insulation of houses, innovation in agriculture, bicycle parking facilities, electric transportation and the transition from gas to alternative energy sources. These budgetary resources are added to the measures that were already included in the Coalition Agreement of the government.

⁹⁰ State of the Netherlands Green Bond Report 2020, DSTA, Ministry of Finance, 28 May 2020.

⁹¹ Dutch State Treasury Agency, Outlook 2020, <https://english.dsta.nl/documents/publication/2019/12/13/outlook-2020>.

In June 2019 the EU Technical Expert Group on Sustainable Finance (TEG) proposed an **EU Green Bond Standard (EU-GBS)** as well as the **EU Taxonomy** (2020). The EU-GBS can be regarded as a stricter version of the, now frequently used, ICMA Green Bond Principles (GBP). The main differences are that the **EU-GBS requires** a use-of-proceeds format, disclosure of the proportion of proceeds used for refinancing, impact monitoring and reporting, external verification, and publication of the external verification, **whereas the GBP only recommends** these. In addition, the EU-GBS uses the EU Taxonomy as a **guideline to define which projects are green and requires verifiers** to be accredited by the European Securities and Market Authority (ESMA). Based on the latest available information, the DSTA believes the Green Bond of the Netherlands would be **eligible** in due time as a Green Bond under the EU Taxonomy.

2.2.2. Slovenia

As for the countries in the immediate environment, none of them except **Slovenia** has succeeded in making significant progress on this issue in the past period. Slovenia's SID Bank, a national development bank, entered the green bond market in 2018. According to the green bond framework, proceeds were allocated across a wide range of sectors, including renewable energy, buildings and transport, where all fossil fuel-based assets are specifically excluded. This move was followed by some other banks⁹².

The Republic of Slovenia has made significant progress in the field of green economy and its financing, inter alia through the issuance of green bonds.

The GEN-I Sonce was the first company in Slovenia to issue green bonds in 2017. With these bonds, GEN-I Sonce, a wholly owned subsidiary of the GEN-I Group⁹³, provided €14 million in financing for green growth in the energy sector. The bonds mature in 2024. The CBI recognized this initiative in March 2018. The green bonds issued by GEN-I Sonce in 2017, of an amount of **€14 million**, received an excellent rating (Green Bond Assessment GB1) from Moody's Investor Services in New York. This company was the first in Slovenia to install solar power plants on residential and commercial buildings.

The second issue of green bonds was developed in 2018 in **SID Bank**⁹⁴ and was realized relatively quickly in cooperation with GEN-I Sonce⁹⁵ and NKBM Bank⁹⁶. SID Bank is a development and export bank 100%-owned by the state of Slovenia. As a Slovenian development bank, SID Bank has been the most financially engaged in the development of the green market in the country in recent years in the banking system. SID Bank actively promotes the concept of green bonds, financing conditions and ways of obtaining financial resources, i.e. the financing of green projects and models of circular economy from green bonds.

A total of **€75 million** of SID Bank green bonds were issued and these mature in 5 years (12 December 2023). It is included in the CBI green bond database, although it is not certified, and it has a positive rating from Sustainalytics.

92 Green Bond European Investor Survey, Climate Bonds Initiative, 2019.

93 The GEN-I Group operates in 22 European markets in which it has sold 52.7 TWh of electricity (2017). The group has maintained its leading position in Slovenia as the first independent supplier of electricity and natural gas to end-customers. The group's commitment to a rapid transition to a low-CO2 society was made under the GEN-I Sonce brand, through which they became the first energy supplier in the region to enter a self-sufficient energy supply market. They have installed more than 300 turnkey solar power plants (Annual Report GEN-I for 2017, https://www.gen-i.eu/media/1924/gen-i-annual-report-2017_20180719_web.pdf).

94 <https://www.sid.si/>, SID Bank (SID – Slovenian Export and Development Bank, d.d., Ljubljana).

95 The GEN-I Sonce Group, which entered the market at the end of 2016 as the first energy supplier in the region, enabled 800 Slovenian households to produce electricity using solar energy. Solar power plants together produced more than 5 GWh of green electricity and contributed to reducing CO2 emissions by 2.5 million kg. Also, this company was the first in Slovenia to install solar power plants on a residential and commercial building. The company is further expanding its business in Croatia, where it built the first commercial solar power plant on the island of Krk last year.

96 The New Credit Bank of Maribor, <https://www.nkbm.si/>.

The main characteristics of SID Bank's green bonds are as follows:

- Bond designation: SEDABI 12/12/2023
- Green bond of the state-owned development bank
- Issue size: €75,000,000
- Denomination 100,000
- S&P issuer rating: A+
- Coupon rate: 0.50%
- Yield: 0.532% (mid-swap rate + 0.26%)
- Date of issue: 4 December 2018
- Maturity date: 12 December 2023
- Listing: Vienna Stock Exchange (MTF, Multilateral Trading Facility)
- Structure of investors: 46% Slovenian, 54% foreign
- Bid-to-cover ratio: 2.3⁹⁷

The funds provided by investors will be used exclusively for the following **purposes**: financing production from renewable energy sources (solar, geothermal, hydro, bioenergy, offshore wind farms), for the construction of buildings with good energy performance, for the purchase of electric vehicles, passenger trains, city bus transport, bicycle infrastructure, construction of waste treatment plants, recycling, pollution control, waste to energy conversion, improvement of some industrial processes, as well as for afforestation, forest management and sustainable agriculture.

For each type of project, the **effects** in terms of energy efficiency and reduction of greenhouse gas emissions have been defined, which is one of the key determinants of green bonds. Once a year, SID Bank will **report to investors** on the allocation of funds raised through the implementation of green projects (Green Bond Report).

On the other hand, Slovenia is aware that the current COVID-19 pandemic crisis takes precedence over the current climate and environmental problems. However, the economic recovery plan, conditioned by the economic effects of the coronavirus pandemic, must be designed to respond simultaneously to the challenges of climate and environmental crisis and social inequality. Economic recovery from the global recession will be much faster if governments and international institutions coordinate their actions and, above all, ensure that financial flows are geared to green investment and no longer support high-carbon investments.

As a country, Slovenia has been declared the **First Green Destination**, and has the opportunity to become a leader in the field of green economic activities, through concrete measures that promote the use of green technologies in all sectors, whose purpose is to mitigate climate change and reduce its effects.

In January 2018, a new **Regulation on Green Public Procurement**⁹⁸ entered into force in Slovenia, which expanded the number of categories of products and services for which green public procurement is mandatory for 20 products. Defined goals are established for each product or service. For example, at least 15% of food should be of organic origin, 50% of office and toilet paper should come from sustainably managed forests, and at least 50% of electricity should be produced from renewable sources or high-efficiency cogeneration plants, etc. For each of the green public procurement products, specific guidelines and proposals of specific criteria are available⁹⁹.

⁹⁷ <https://www.sid.si/en/news/sid-bank-issues-first-green-bond>.

⁹⁸ Decree on Green Public Procurement, Official Gazette of the RS No. 51/17 and 64/19. <https://ejn.gov.si/sistem/zeleno-jn.html>.

⁹⁹ Vasiljevic D., Petrovic, D. Report on the conducted ex-ante analysis of effects for the field of the circular economy, PLAC III project, Belgrade, January 2020, https://www.ekologija.gov.rs/wp-content/uploads/javne_rasprave/2020/EXANTE-ANALIZA_KONACNO-V4.pdf.

2.2.3. Croatia

To date, no green bonds have been issued in **Croatia**, although most companies invest in environmental projects and adjust their business to that strategy. The Zagreb Stock Exchange does not yet have a single green financial instrument listed, but given that investors are globally more interested in sustainable financing, it is believed that the Croatian capital market could soon receive such a bond. Green bonds and all sustainable financing models are also supported by the Croatian Employers Association, in order to keep Croatian companies competitive and attractive to investors, who are increasingly demanding information on the impact of their investments on society and the environment¹⁰⁰. The Croatian capital market is still underdeveloped in terms of green bond trading because they are in many cases issued for high-value projects of €50 million or more, so there is a lack of large investors.

Obstacles to the application of green bonds in the Republic of Croatia are primarily related to economies of scale and the still underdeveloped capital market. Projects financed in this way are of higher value, issuance costs are high, and on the other hand, the capacity of potential domestic large investors is limited. In many cases, these are projects worth more than €50 million or more, so there is a lack of large investors. On the other hand, international releases are reserved for the biggest players in the market. Also, it is necessary to improve the **regulations** in this area, which would encourage green bonds.

In the Republic of Croatia, the **energy sector**, specifically HEP¹⁰¹ shows interest in issuing green bonds, as a long-term debt instrument of the capital market (in terms of the properties they have they are very similar to conventional bonds, however they differ in the manner and purpose of issuance). energy, which require significant financial resources. On the other hand, other companies in the energy sector could also discover an interest in issuing **corporate green bonds**. So far, however, no financing has been recorded by issuing green bonds in the domestic market, although a significant number of companies are investing in numerous environmental protection projects and adapting their operations to this strategy, following the green business model. In addition, at the local, state and regional levels, despite significant planned projects in the field of environmental protection and an obvious lack of financial resources for their implementation, there is clearly not enough initiative to develop such financing by issuing state or municipal green bonds¹⁰².

There is some experience with issuing **municipal bonds**. The Budget Law (NN Nos. 87/08, 136/12 and 15/15) regulates the borrowing of local communities and the provision of guarantees. The issuance of municipal bonds is one of the possibilities of long-term borrowing of local communities, and for the needs of the implementation of local development projects, mainly in the field of communal infrastructure.

For example, **the City of Split** issued €8.2 million in municipal bonds in 2008. Bonds of the City of Split ("City" or "Issuer") were issued on 8 April 2008 ("Issue Date") in dematerialized form, in the name and denomination of €1, with an interest rate of 6,000% per annum and maturing on 8 April 2017. Interest was paid semi-annually at a fixed annual rate of 6,000%, for the kuna equivalent of the amount in euros using the middle exchange rate of the Croatian National Bank on the day of payment. The funds are intended for financing the communal infrastructure projects of the city. Investors are informed in time about the final yield, interest rate and issue price so that they can make their investment decision (binding offer) based on all the characteristics of the bonds. On 8 July 2008, the bonds were included in the Depository and Settlement Services of the Central Depository Agency with its registered office in Zagreb, ("SDA"). The bonds are listed on the Official

¹⁰⁰ Croatian Employers Association, www.hup.hr.

¹⁰¹ <https://www.hep.hr/>, HEP – Croatian Electric Power Industry.

¹⁰² Tuskan Sjaus Branka, Mihelja Zaja Maja, Issuance and Investment Potentials of Green Bonds, Insurance World, 1/2020.

Market of the Zagreb Stock Exchange d.d., ("Zagreb Stock Exchange") under the code GDST-O-177A, which is both an agent and a sponsor of the issue. The Government of the Republic of Croatia has given its consent to borrowing by issuing municipal bonds. The prospectus was approved by the Croatian Financial Services Supervisory Agency ("HANFA"). The consent of the government depends on the budget constraints of the local community (level of indebtedness, level of arrears, etc.).¹⁰³

Zagrebačka banka was the agent and sponsor of the bond issue of the City of Split, based on the **Agreement on the subscription of the bond issue** of the City of Split with the "Issuer". The opening day of the subscription period was determined and published in the public invitation for the subscription of securities in daily newspapers, on 23 June 2008, which indicated the places where the prospectus could be obtained free of charge and the address where it could be ordered free of charge by mail. The subscription period of the bonds lasted for five working days from the day of opening of the subscription, i.e. from 30 June 2008 to 4 July 2008. The closing date and time of the subscription period were indicated in the public call for subscribe. The bonds were denominated in EUR, and the payment of funds was in HRK. According to the Securities Market Act¹⁰⁴ the threshold for the success of an issue is the subscription and payment of at least 75% of the entire issue. In the period for subscription and payment of the bonds, 100% of the entire issue was subscribed and paid. The bonds are listed on the first quotation (Official Market) of the Zagreb Stock Exchange, where the agent was also Zagrebačka banka.

In 2006, the **City of Rijeka** issued 10-year municipal bonds, in three tranches, with a total investment value of €42 million.¹⁰⁵

The recommendations for enhancement of the municipal bond market in Croatia are the following:

- Consider the possibility of preparing the consolidated financial statements of utility companies owned by local government and local government units themselves, in order to gain a thorough picture of the assets involved and overall financial operations of local communities. Formally, that should not be a problem because utility companies are owned by local units. But since utility companies have the status of public corporations, this has not been possible so far.
- The government and the Ministry of Finance should regulate the borrowing (purpose, instruments, security, issuance of guarantees, etc.) of central government, local government units and utility companies (all to whom the state issues guarantees), in one Public Debt Act.
- The government and the Ministry of Finance should empower a system of financial controls in order to prevent wilful violation of the Budget Act's provisions and local government borrowing without prior approval.
- Finally, they should introduce an analysis of creditworthiness through a credit rating system for local government units. Inaugurating a credit rating system would improve control of adherence to budgetary constraints and determination of priorities for approving local government units' borrowing.¹⁰⁶

103 Prospect, Municipal Bonds, the City of Split, 2008, <https://zse.hr/userdocsimages/prospekti/GDST-O-177AProspekt-2082008101826.pdf>.

104 Law on Capital Market of RH, NN no. 65/17, 17/20. <https://www.zakon.hr/z/171/Zakon-o-tr%C5%BEi%C5%A1tu-kapitala>.

105 Prospect, Municipal Bond, the City of Rijeka, 2006; <https://www.rijeka.hr/wp-content/uploads/2006/02/Odluka-o-zadu%C5%BEivanju-Gra-da-Rijeke-izdavanjem-municipalnih-obveznica.pdf>.

106 Bajo, A., Primorac, M., Local Government Borrowing Practice in Croatia, Financial Theory and Practice, 34(4), pp. 379–406; http://www.fintp.hr/en/archive/local-government-borrowing-practice-in-croatia_303/.

2.2.4. Serbia

The situation is similar in Serbia, North Macedonia and other countries in the region. The International Finance Corporation noted that most green projects in underdeveloped countries are small in order to attract the capital of large investors. That's why the IFC and Amundi Asset Management in 2018 founded the **Amundi Planet Emerging Green One (EGO)**¹⁰⁷, an investment fund aims to invest \$2 billion over its seven-year lifetime into emerging-market green bonds to encourage further green investments.

The Fiscal Council of the Republic of Serbia (RS) conducted an analysis of investments in environmental protection¹⁰⁸ and assessed that a strong increase in investments in environmental protection is a budget priority in the coming years. In Serbia, there is a huge **problem of environmental protection** that endangers the health of the population, shortens the average life expectancy, worsens the quality of life and leads to uneven regional development. This situation was caused, first of all, by decades of insufficient investment by the state in landfills, wastewater treatment plants, the sewage and water supply network, and others. That is why a strong **increase in public investment** is now needed to address the growing problems.

Increasing the state's investment in environmental protection in the coming years is not only an indisputable need, but also an obligation of Serbia. Namely, environmental protection is one of the basic achievements of the EU – so in the process of joining the EU, Serbia is obliged to strongly increase investments in this area. If the required standards are not met by the end of the transition period, significant penalties will follow. The RS Fiscal Council estimates that public finances should deal with this problem immediately.

No green bonds have been issued in the Republic of Serbia, but they are announced for 2021. Some experiences exist with the issuance of “green” bonds by local governments in Serbia and are presented in recent research¹⁰⁹. This relates to so-called **municipal bonds**. These are debt securities issued by cities and municipalities in order to finance infrastructure projects of public importance.

In general, the government distinguishes between two forms of local government borrowing: credit borrowing and borrowing by issuing long-term securities (bonds).

Table 11. Loan indebtedness vs. issuing municipal bonds

BONDS – indebtedness based on the issuance of securities	
Advantages	Disadvantages
<ul style="list-style-type: none"> Cheaper borrowing Debt that can be traded on an organized market Larger investor base Possible tax breaks – investors are often exempt from paying capital gains tax or capital transaction tax on municipal bonds 	<ul style="list-style-type: none"> Relatively underdeveloped instrument Complex issuance procedure Risk of failure (public emissions)
LOANS – borrowing based on a loan agreement with a bank	
Advantages	Disadvantages
<ul style="list-style-type: none"> Simple procedure Widespread model Faster borrowing Greater certainty for borrowing success 	<ul style="list-style-type: none"> Does not give additional positive effects (market valuation of debt) Smaller investor base Possible changes in the bank's business policy Limited investment capital and sector placement risks

¹⁰⁷ <https://www.unpri.org/pri-awards-2019-case-study-planet-emerging-green-one-fund/4826.article>.

¹⁰⁸ RS Fiscal Council, Investment in Environmental Protection: Social and Fiscal Priority, June 2018.

¹⁰⁹ Stojanovic D. & Djukic, G. International Green Financing – A Comparison of Singapore and Serbia, 9th International Symposium of Natural Resource Management, Book of Proceedings, Faculty of Management, Zajecar, 2019.

The focus of the interest of the municipality or city is to define the **maximum** amount of debt in relation to the total revenues generated in the previous budget year. The state has no interest in favouring one of the two ways of borrowing, but it has an interest **in controlling the overall level of debt**, both at the level of the central government and at the level of local self-government units¹¹⁰.

Legal framework for issuing bonds

The Law on Public Debt¹¹¹ defines borrowing through loans, i.e. issuing government securities for financing the budget deficit and current liquidity deficit, for refinancing liabilities based on public debt and for financing investment projects, as well as providing guarantees. The Republic can borrow in the local and foreign currencies. Borrowing by issuing short-term government securities in the country can be done exclusively in the local currency.

The legal framework for the issuance of securities in the RS is **the Law on the Capital Market**¹¹². This law regulates:

- 1) public offering and secondary trading in financial instruments;
- 2) the regulated market, multilateral trading platform (MTP) and OTC¹¹³ markets in the Republic of Serbia;
- 3) the provision of investment services and performance of investment activities, including the issuance of operating licences and the regulation of investment companies and other participants in the capital market in accordance with this law;
- 4) the disclosure of financial and other data, as well as reporting the obligations of the issuers and public companies in accordance with this law;
- 5) the prohibition of fraudulent, manipulative and other illegal actions and deeds related to the purchase or sale of financial instruments, as well as the exercising of voting rights in connection with the securities issued by public companies;
- 6) the clearing, settlement and registration of transactions in financial instruments, as well as the organization and competencies of the Central Registry, depots and clearing of securities (hereinafter: the Central Registry);
- 7) the organization and competencies of the Securities Commission.

The Decree on the Procedure for Issuing Debt Securities¹¹⁴ simplifies the procedure for issuing bonds during a state of emergency and six months after its expiration. This measure, aimed at large companies, is part of a **package of measures to mitigate the economic effects of the COVID-19 pandemic** and aims to encourage the use of an additional source of capital to provide funds for operations and investment projects in the coming period.

110 According to: Selak G., *Municipal Bonds as Securities*, University of Business Academy, Faculty of Law, Faculty of Economics and Justice, Novi Sad, 2016, p. 104.

111 This law regulates the conditions, manner and procedure of borrowing of the Republic of Serbia, units of territorial autonomy and local self-government, the Republic Health Insurance Fund, the Republic Pension and Disability Insurance Fund and the National Employment Service, as well as public companies and other legal entities. founder of the Republic, giving guarantees of the Republic, manner and procedure of public debt management and keeping records on public debt.

112 Law on the Capital Market ("Official Gazette of RS" Nos. 31/11, 112/15, 108/16 and 9/20).

113 Over-the-counter markets (OTC), unlisted stock markets. These are less rigorous and less formalized markets in relation to the official stock market embodied in the classic listing (Jeremic, Z. *Financial markets and financial intermediaries*, Singidunum University, Belgrade, 2012, p. 167).

114 Decree on the procedure for issuing debt securities, "Official Gazette of RS" No. 54/20, <https://www.paragraf.rs/propisi/uredba-o-postupku-za-iz-davanje-duznickih-hartija-od-vrednosti-vanredno-stanje.html>.

Bonds are debt securities and funding is collected through a public offering of bonds on the capital market, i.e. from a number of institutional investors, including banks, insurance companies, pension funds, investment funds and international financial institutions.

The capital market in Serbia has a high level of development in the **government securities sector** and the Republic of Serbia is successfully issuing bonds denominated in dinars and euros with a maturity of up to 12 and 20 years, respectively, with the participation of both domestic and foreign institutional investors. **The corporate bond** market is in the development phase and bond issuers, with listing on the regulated market of the Belgrade Stock Exchange, include some commercial banks and international financial institutions.

The adopted measures significantly facilitate the issuance process and clearly show the interest of relevant stakeholders (Ministry of Finance, Securities Commission, Belgrade Stock Exchange, etc.) to encourage this method of financing, while the potential participation of the state in the issue further enhances market liquidity.

The RS Budget System Law¹¹⁵, as the umbrella law, defines fiscal rules¹¹⁶ that set limits on fiscal policy, in order to strengthen budgetary discipline, improve coordination between different levels of government and reduce uncertainty when it comes to future fiscal policy, which also sets the frameworks for RS borrowing, including bond issuance.

The fiscal deficit of a local government (Article 27(z)) in a given year cannot exceed 10% of its revenues in that year. The executive body of the local government may submit a request to the ministry for approval of the fiscal deficit above the stated amount only if it is the result of the realization of public investments for the next budget year.

The government may only exceptionally and temporarily deviate from the fiscal principles and rules established by this law, in cases of **natural disasters and external shocks** that lead to the endangerment of human health, national security and the decline of economic activity, on which it makes a decision. The government is obliged to submit a report to the National Assembly in which it will clearly state: 1) the reasons for deviating from the fiscal principles or rules; 2) measures that the government intends to take in order to re-comply with fiscal principles or rules; 3) the time period in which the government expects to start adhering to the fiscal principles or rules again.

Legal framework for local governments for borrowing, as well as for issuing municipal bonds, which can be a good basis for issuing green bonds in RS

As stated above, the **Law on the Budget System of RS** (Article 27(z)) stipulates that the amount of fiscal deficit in a given year may not exceed 10% of the revenue in that year – otherwise, it is necessary to obtain the consent of the ministry to approve the fiscal deficit above that amount, no later than 1 May of the current year for the next budget year and only under the condition that the deficit is the result of the realization of public investments.

¹¹⁵ Law on the Budget System of RS ("Official Gazette of RS" Nos. 54/09, 73/10, 101/10, 101/11, 93/12, 62/13, 63/13 – amended by Nos. 108/13, 142/14, 68/15, and other laws Nos. 103/15, 99/16, 113/17, 95/18, 31/19 and 72/19).

¹¹⁶ Fiscal rules (Article 27(e)) shall apply to the general government sector, and they may be general or specific. The general fiscal rules shall be as follows: 1) the target annual fiscal deficit shall amount to 1% of GDP in the medium term; 2) the debt of the general government sector, excluding liabilities from restitution, shall not exceed 4% of GDP. And as special fiscal rules, it is defined that the principles of responsible fiscal management require the reduction of expenditures for salaries and pensions to a sustainable level, so that the share of general government salaries in GDP will be up to 7%, and the share of pensions in GDP up to 11%.

According to the Law on Public Debt (Articles 33 to 38), the decision on local government borrowing is made by the competent local government body, with the prior consent of the ministry, and with an explanation of the reasons for the need for borrowing, as well as data on revenues and incomes, expenditures and expenses in the previous year, data on indebtedness on the day of submitting the request, plan and execution of expenditures and expenses, as well as plan and realization of income and receipts in the year for which the request is submitted and data on due but unpaid obligations on the day of submitting the request.

Local governments can borrow in the country and abroad, i.e. on the domestic and foreign markets. Local authorities cannot give guarantees to the legal entities of which they are the founder, nor to any other legal entity.

During the budget year, borrowing to finance the current liquidity deficit may not exceed 5% of the total revenues of the local government budget in the previous year. Local governments cannot borrow in the long run, except in the part of borrowing to finance or refinance capital investment expenditures, provided in the local government budget.

The amount of outstanding long-term debt for capital investment expenditures may not exceed 50% of the total current revenues of the local government budget in the previous year. Exceptionally, the amount of outstanding long-term debt for capital investment expenditures may be higher than 50% of the total current revenues of the local government budget in the previous year, in cases of long-term borrowing whose repayment period, not counting the standstill period, is at least five years.

The amount of principal and interest that is due each year on all outstanding long-term borrowings to finance capital investment expenditures may not exceed 15% of the total current revenues of the local government budget in the previous year.

In addition, local governments can borrow by **taking out loans or issuing long-term securities** (municipal bonds), which can be purchased by domestic and foreign legal entities and individuals, in accordance with the law governing the capital market.

The public procurement procedure is not applied to the issuance of municipal bonds, in accordance with Article 7, paragraph 1, item 9 of the Law on Public Procurement (which is valid until 30 June 2020, although this exception also exists in the new law).

The Capital Market Act also fully applies to municipal bonds.

Local governments can borrow within the country and abroad, i.e. in the domestic and foreign markets, in local and foreign currencies.

Bonds can be issued and sold in advance to known buyers, professional investors, in which case we are talking about **private placement**; or they can be issued by a public offering to an indefinite number of unknown buyers, in which case we are talking about a **public placement**. If bonds are issued through a public offering, the buyers of bonds can be all domestic and foreign, legal entities and individuals, most often banks, insurance companies, pension and investment funds, as well as citizens (both from the country and abroad).

The issue of municipal bonds is approved by institutions, such as the Central Securities Depository, the Securities Commission and the Belgrade Stock Exchange for secondary trading.

We can conclude that the financial market in Serbia has established a **legal framework** for the smooth functioning of the issuing of municipal bonds, which is significantly in line with EU regulations.

To make raising funds by issuing municipal bonds as easy and transparent as possible (this is especially important for foreign investors), local governments may decide to obtain a **credit rating from international rating agencies**. In this regard, we point out that the National Bank of Serbia, as the regulator of the insurance market, has adopted a Decision on investing collateral which attributes that insurance companies can invest technical provisions in debt securities issued by local governments that have a credit rating for long-term borrowing in a foreign currency no lower than the rating of the Republic of Serbia according to Standard & Poor's, Fitch-IBCA or Moody's.

With USAID support, **Novi Sad, Valjevo and Kraljevo** have secured a credit rating from Moody's.

Financing of projects for environmental protection and renewable energy sources is possible only in developed local governments, given that there is a low risk in case of the non-fulfilment of obligations by the issuer, the local government. Bonds that would be convertible and convertible with shares are attractive for investors. The Law on Securities does not give investors the possibility of exchanging bonds for shares before the expiration of 6 months, and the Law on Companies before the expiration of 2 years. The complicated legal procedure on the bond market is one of the obstacles to favourable investment in Serbia.¹¹⁷

Municipal bond issuance procedure

The process of issuing municipal bonds is a process in which a municipality or city performs a number of administrative and legal tasks, with the aim of borrowing on the financial market under the most favourable conditions. The goal of issuing municipal bonds is to raise the necessary funds on the most favourable terms in terms of the price of debt, payment deadlines, and the structure of debt. The course of the municipal bond issuance project is given in the following tabular overview.

Table 12. The course of the municipal bond issuance project¹¹⁸

Projects of this type are implemented through a structured and formalized process to ensure the maximum success of the issue			
1. Project preparation	2. Market analysis and preparation of documentation	1. Roadshow & 3. Regular questions	4. Registration and Payment & Listing on the Stock Exchange
Hiring a financial advisor and forming project teams Adoption of the decision on borrowing and obtaining the opinion of the Ministry of Finance Determining public procurement of loans; initiating a public procurement procedure for loans Determining the time plan for issuing bonds Elements and preliminary determination of the structure of municipal bonds Preliminary determination of the bond structure Preliminary determination of indicative conditions	Market research and demand analysis (involvement of international financial institutions) Decision on the agent-sponsor of the issue Preparation of tender documentation for the loan Preparation of an information memorandum - Prospectus for the issue of municipal bonds Making presentations, Q&A and other materials Decision on the manner of issue – public offer or private placement	Organizing presentations and "one-to-one" meetings with key investors. Determining the price/yield of bonds – contract with the sponsor. Obtaining approval of the Prospectus (Notice) by the Securities and Exchange Commission	Concluding contracts with bond buyers/Subscription and payment of bonds Obtaining approval for the issuance of bonds from the Securities and Exchange Commission Registration of bonds in the central securities register Inclusion of bonds in the organized market Contract with a market maker

¹¹⁷ Pavlovic, V. 2016. Development of local self-government and financing of investment projects by issuing municipal bonds, Doctoral dissertation, Belgrade, University of Belgrade, Faculty of Political Science, p. 13.

¹¹⁸ Pavlovic V., Draskovic, V., Culic, M., & Bucic, A., Guidelines for Issuing Municipal Bonds, Standing Conference of Towns and Municipalities, "EU Exchange 4", 2015.

A clear and precise procedure for issuing bonds in accordance with the existing regulations is not only a potential benefit, but also a necessity for the issue of bonds to succeed.

In addition to the above, it is important to emphasize the importance of the **administrative capacity of cities and municipalities**. In order for the municipality or city to enter the procedure of issuing municipal bonds, and to issue them successfully, that is sold, there must be administrative, personnel and other capacities within the organizational structure of the issuer.

Municipal bonds issued in the Republic of Serbia

So far, municipal bonds have been issued by **Pancevo, Novi Sad, Sabac, Stara Pazova**, but work is still being done to promote and strengthen the capacity of local self-government to use this financial instrument.

The financial market of municipal bonds in Serbia is underdeveloped and is currently in its infancy. Bonds issued by local governments of these cities are registered in the Central Register of Securities of Serbia and do not have the character of green bonds, but are intended for projects such as:

- Infrastructure projects for financing the sewerage system and construction of the Boulevard of Europe in Novi Sad, 2011 – effective interest rate 6.25% per annum;
- For four capital projects in Pancevo: a) construction of the barracks parapet; b) reconstruction of street; c) infrastructural equipment of the northern industrial zone; and e) infrastructural equipment of the industrial zone “Greenfield 2”, 2012 – variable interest rate 9.5% per annum;
- For the reconstruction of the city centre, construction of a sports hall in the primary school, kindergarten in the settlement, in Stara Pazova, 2014 – fixed interest rate 9.53% per annum;
- For infrastructure, in Šabac, 2014 – interest rate 6% per annum.

The negative characteristic of these municipal bonds is that they have **high** tax rates of return, which results in a high **risk** for investors. There was no trading on the secondary stock market. Based on budget revenues after the issuance of municipal bonds, it was determined that the municipalities that issued municipal bonds had an increase in budget **revenues** and greater opportunities for sustainable economic development.

This indicates a clear intention to launch the green bond market in the coming period, especially bearing in mind the readiness of the Republic of Serbia to intensify negotiations with the EU in the field of environmental protection and climate action.

Concluding remarks for municipal bonds and the possibility of developing the green bond market in RS

Investors in municipal bonds make their decision based on the following factors:

- capital investment risk in the purchase of bonds;
- tax and fiscal benefits related to the purchase of bonds;
- credibility of the debtor or bond issuer;
- the possibility of generating higher revenues for certain types of municipal bonds;

- certainty of collection of bonds upon their maturing;
- the possibility of trading in bonds on the secondary capital market;
- the possibility of direct purchase of bonds according to defined criteria, which may be subject to negotiations with the issuer;
- transparency of the bond issuance process, which affects a better source of information relevant to the assessment of the issuer's creditworthiness;
- finally, a precisely defined maturity of bonds has a positive effect on the planning of capital investments in future operations¹¹⁹;
- arguments against investing in/buying municipal bonds are related to: the availability of these securities on the financial market, rate of return on invested capital (in case it is significantly lower compared to other investments on the financial market), lack of fiscal benefits within the legal system issuer of bonds, listing of municipal bonds on the secondary capital market.

The arguments or facts against the issuance of municipal bonds can be structured as follows:

- the procedure for issuing municipal bonds takes an extremely long period of time;
- the procedure of issuing municipal bonds requires the personnel capacities of the issuer;
- the issuer has the dispositive right to decide on the method of selling the issue, bonds, but due to the situation on the financial market, it often does not have a realistic possibility of choosing the method of sale;
- the formation of the bond price depends on factors that the issuer cannot influence;
- direct and indirect costs of emission can be extremely high;
- the development of the financial market greatly influences the successful realization of the bond issue;
- investor interest in buying a bond issue is crucial for its successful realization;
- the risk of debt repayment of issued bonds sold as income bonds.

Finally, **the factors in favour of issuing municipal bonds**, including elements of public interest in fostering sustainable, inclusive and smart development of local communities, are as follows:

- clear and precise procedure for issuing bonds in accordance with existing regulations;
- raising the credit rating of bond issuers;
- identification of administrative and other capacities required for the realization of the bond issue;
- the possibility of hiring a financial advisor to more efficiently prepare the bond issue;
- the possibility of choosing the method of selling bonds;

¹¹⁹ Dorit, S. (1998). A Comparative Risk Return Analysis and Performance Evaluation of Tax Free Municipal, The Journal of Business, Vol. 71, No. 1 (January 1998), pp. 135–146.

- the possibility of influencing the time interval in which the bonds mature;
- the possibility of influencing the amount of yield per bond;
- the possibility of contracting a variable or fixed interest rate;
- the possibility of contracting intermediaries in the sale of issued bonds;
- different modalities of sale of issued bonds;
- the possibility of purchasing issued bonds before their maturity from creditors, i.e. bond buyers;
- the possibility of contracting the time interval between the issue of bonds and the maturity date of the bonds;
- transparency of the process of issuing municipal bonds;
- identifying the needs of the residents of the area of the bond issuer with certain project ideas, which would be realized by issuing bonds;
- less scope for corruption and other illegal and illegal actions¹²⁰.

Bearing in mind the underdevelopment of the market, the lack of professional staff, the complexity of procedures and existing legal regulations, it is suggested that a **financial advisor** be hired as an expert in the process of issuing municipal bonds.

Due to insufficient financial resources in local governments, it is of great importance for the **government to take proactive action** to provide greater financial resources to cover the costs of implementing "green" projects to financial institutions, the Central Securities Depository, the Securities Commission and the Belgrade Stock Exchange.

It is necessary to provide less developed local governments with greater financial support from the **Green Fund**, in order to create conditions for the development of the financial market and the issuance of green municipal bonds.

In the process of decentralization of local self-governments, **legal regulation is necessary regarding the unintended spending of funds for the green economy**.

An obstacle to the issuance of green municipal bonds in local governments is the lack of digital and information support for internet communication and business with investors, and promotional activities, through the web portal¹²¹.

120 Selak, G., Municipal Bonds as Securities, University of Business Academy, Faculty of Law, Faculty of Economics and Justice, Novi Sad, 2016, pp. 157–159.

121 Bejatovic, G., Selak, G., 2016. Borrowing of local self-government units on the financial market – benefits of issuing municipal bonds. LAW - Theory and Practice, 1–3, p. 22–34.

3. Opportunities for the development of the green bond market in Montenegro: Approach to a roadmap

The EU rules in the area of **financial services** aim to ensure fair competition between, and the stability of, financial institutions, namely: banking, insurance, supplementary pensions, investment services and securities markets. They include rules on the authorization, operation and supervision of these institutions. **Chapter 9 – Financial Services** includes four key areas: a) Banks and financial conglomerates; b) Insurance and occupational pension provision; c) Financial market infrastructure; and d) The securities market and investment services.

Montenegro has an adequate **institutional framework** for the implementation of the EU *Acquis* in this chapter. Therefore, the establishment of new institutions is not needed, but the strengthening of the existing ones is required. The Ministry of Finance, the Central Bank of Montenegro, the Capital Market Authority, the Insurance Supervision Agency and the Deposit Protection Fund are the institutions responsible for the implementation of the EU *Acquis* in this area.

With a view to achieving full alignment and implementation of the EU *Acquis* in the area of financial services, Montenegro will continue to further align its legislation and strengthen its administrative capacities.

Financial market infrastructure in Montenegro – the current legal basis that regulates the financial market's infrastructure in Montenegro, the clearing of securities and financial collateral arrangements includes the Law on the Capital Market (OGM 1/18), the Law on Financial Collateral Arrangement (OGM 44/12) and the Law on Investment Funds (OGM 54/11, 13/18). The Law on the Capital Market regulates the clearing, settlement and registration of securities, and the scope of activities of the Central Securities Clearing Company – the institution responsible for the registration of dematerialized securities, transactions and the clearing and settlement of transactions concluded in these securities.

The securities market and investment services – The current legal basis that regulates the securities market and investment services in Montenegro is specified by the Law on the Capital Market (OGM 1/18), which regulates the types of securities, issuance and trading of securities, the rights and obligations of entities on the securities market and the organization, scope of work and responsibilities of the Capital Market Authority (the independent regulatory body).

On the basis of the aforementioned law, the SECMN has adopted numerous bylaws, which closely regulate specific questions regarding the functioning of the securities market and investment services¹²².

Montenegro is **moderately prepared** in the area of financial services. This chapter was opened in 2015. Regarding the **financial market infrastructure, securities markets and investment services**, the Securities and Exchange Commission was transformed into the Capital Market Authority following the adoption of the Law on the Capital Market in December 2017. The Capital Market Authority adopted extensive secondary legislation related to the Law on the Capital Market and to the Law on Investment Funds, which provide for partial alignment with the EU *Acquis* on rules concerning markets in financial instruments, securities, investment funds, prospectuses and capital markets¹²³.

¹²² Negotiation position for Chapter 9: Financial Services, Government of Montenegro, 2014.

¹²³ EC Report 2019.

We can conclude that the financial market in Montenegro has **established a legal framework** for the smooth functioning of the issuing of (municipal) bonds, which is significantly in line with EU regulations.

Law on the Budget and Fiscal Responsibility ("Official Gazette of Montenegro" Nos. 20/14, 56/14, 70/17, 4/18 and 55/18)¹²⁴. Budget planning and execution, fiscal responsibility, loans and guarantees and other issues of importance for the budget of Montenegro (state budget) and the budget of local self-government units (municipal budget) are regulated in this law. Article 20 of the law states that the state may borrow during the fiscal year up to a level determined by the annual Law on the State Budget. This borrowing is the assumption of financial obligations on the basis of credit agreements, **the issuing of debt securities** and issued guarantees. Long-term borrowing, in terms of this law, is considered borrowing for a repayment period longer than 12 months. Total annual borrowing does not include the amount required to refinance the debt (borrowing to settle liabilities based on previous borrowing).

Article 57 of the law regulates **municipal borrowing**. Municipalities can take out long-term loans and provide guarantees with the prior consent of the government, which is granted at the proposal of the Ministry of Finance. Companies and legal entities that are majority-owned by the state or a municipality can borrow on a long-term basis **with the prior consent of the government**, which is granted at the proposal of the Ministry of Finance. The user of funds on the basis of long-term borrowing and issued guarantees is obliged to submit to the Ministry of Finance a report on each withdrawal of credit funds, within seven days of the date of withdrawal and to submit quarterly reports on the state of total indebtedness.

The total public debt of Montenegro, as of 31 December 2019, amounts to €3,788.82 million, or 77.2% of preliminary GDP. The consolidated debt of municipalities amounts to about €118.51 million, according to the data submitted by the municipalities for the end of 2019, as well as according to the data of the Ministry of Finance, which is about €32.29 million less than at the end of 2018¹²⁵.

Corporate and government bonds are traded **on the Montenegrin capital market**, and the state has successfully issued Eurobonds in recent years, both internationally and domestically¹²⁶.

Similar to other capital markets in the region, the Montenegrin market is characterized by the dominant presence of equity securities. In addition to them, there are several types of debt securities. Initially, there were mostly short-term securities that bridged liquidity and were issued for 90 or 180 days. The buyers of these securities were exclusively banks. In addition to these securities, there are also old foreign currency savings bonds which, similarly to the case in Serbia, can be used as a means of payment in the privatization process. The Government of Montenegro also issued bonds for road rehabilitation of an amount of €1.2 million, which were bought by the Development Fund of Montenegro. These are long-term securities with a maturity of up to 10 years, which accrue 3% of the yield on an annual level, with the issuer's obligations dormant in the first 3 years. In all the above cases, the sale of bonds to a known buyer is also performed¹²⁷.

Several bonds are available on the **Montenegro Stock Exchange**, of which the following can be distinguished:

124 Applies until 1 January 2022, when new amendments to the law come into force, published in the Official Gazette of Montenegro No. 66/19, of December 2019.

125 Report on the Public Debt of Montenegro on 31 December 2019, Ministry of Finance, 9 April 2020.

126 Decision on the Issuing of Government Bonds, Official Gazette of Montenegro No. 70/16. GB1-2016 series. Date of broadcast 14 November 2016. The amount of the issue is €100 million. Nominal value of one bond: €10,000. Bonds have a fixed interest rate of 4.0% per annum. The total amount of bonds issued is 10,000 bonds, maturing on 15 November 2020.

127 Trajkovic, M., Municipal Bond Guide, BDD I2R, Broker a.d. Novi Sad, 2009.

- Government bonds (GB) – bonds of a very specific form, whose cash flows are very similar to the flows of a bank loan, i.e. in addition to interest, the coupon also includes a part of the principal¹²⁸; and
- Hipotekarna banka corporate bonds – classic coupon bonds (HBO1, HBO2, HBO3).

The first issue of Montenegrin municipal bonds issued by the Municipality of Niksic, worth €1 million, sold out just one day after it appeared on the stock exchange, in August 2006. Although Montenegrin capital market analysts were sceptical of the first tranche of municipal bonds, the subscription showed that the Montenegrin market was ready for such a form of investment. The Municipality of Niksic has prepared a second issue of bonds, with a nominal value slightly lower than the original €50,000, all to make them more attractive to a wider circle of users. The bonds were issued to provide funding for infrastructure projects. The interest on the issued bonds was 3% per annum, and the date of maturity is 10 years after issuing, more precisely May 2016¹²⁹.

During the previous period, more precisely at the end of the previous decade, a large number of municipalities in Montenegro issued municipal bonds. The money raised through this borrowing was used **to finance local infrastructure projects**. The table below shows the issues of municipal bonds, realized in Montenegro, according to the Guide through Municipal Bonds (2009)¹³⁰.

Table 13. Municipal bonds on the financial market of Montenegro

ISSUER	Number of bonds issued	Nominal	Maturity date	Secondary trade*
Andrijevic	435,407	€1	Serial from 2009 to 2015	The bonds were listed on the stock exchange, but there was no secondary trading
Berane	622,125	€1	Serial from 2009 to 2015	
Bijelo Polje	1,249,255	€1	Serial from 2009 to 2015	
Cetinje	965,531	€1	Serial from 2009 to 2015	
Danilovgrad	812,000	€1	Serial from 2009 to 2015	
Kolasin	995,400	€1	Serial from 2010 to 2016	
Niksic	1,306,452	€1	Serial from 2009 to 2015	
Podgorica	1,244,243	€1	Serial from 2010 to 2016	
Pluzine	622,613	€1	Serial from 2010 to 2016	
Pljevlja	1,244,243	€1	Serial from 2009 to 2015	
Rozaje	746,410	€1	Serial from 2009 to 2015	
Savnik	400,001	€1	Serial from 2010 to 2016	
Zabljak	392,000	€1	Serial from 2010 to 2016	
Bar	599,998	€1	Serial from 2010 to 2016	

The bonds are placed in advance to a known buyer. All issues were purchased by the then **Development Fund** of Montenegro, one of whose basic functions was to provide financial support in the construction of infrastructure and environmental projects, when it comes to local communities. Thus, for example the Municipality of Berane, from the funds obtained by issuing municipal bonds, reconstructed the city's streets; the Municipality of Niksic financed completion of the construction of the bus station; the Municipality of Pljevlja built a water supply network in disputed streets, the Municipality of Budva financed the purchase of special-

¹²⁸ Currently available government bonds on the Montenegro Stock Exchange website – GB16, GB24, 2G24, GB26 (22 June 2020).

¹²⁹ <https://www.poslovni.hr/vijesti/uspjesan-upis-prvih-municipalnih-obveznica-u-crnoj-gori-20780>.

¹³⁰ Trajkovic, M., Municipal Bond Guide, BDD I2R, Broker Ltd. Novi Sad, 2009.

ized vehicles for garbage collection, etc. In 2010, a special law established the **Investment and Development Fund of Montenegro** (IDF MN) as a non-financial development institution of the state, a mechanism to support the economic development of the country, in accordance with defined development priorities. The Fund's core business is established through granting loans and extending guarantees, performing activities pertaining to the sale of capital in the fund's portfolio¹³¹ and other activities aimed at supporting economic development. There are more details on the fund's activities in the next chapter, Chapter 7.

The IDF's business policy is directed towards the growth of support for green economic programmes, which in the future will include **green lending and performance-based subsidies**.

Based on the above, **the restrictions on the development of the green bond** market in Montenegro are numerous, and are especially related to the following issues:

- The institutional framework (legislative framework, institutional infrastructure on the Montenegro Stock Exchange, solid cooperation between all institutions in the capital market) is not a constraint, but rather the **size of the market** – the number of potential investors and the strength ("credit rating") of issuers – represent a key set of restrictions on the development of green bonds in Montenegro.
- Greater expertise of **financial and operational management** is needed, especially at the level of local governments, stable fiscal revenues, as well as constructive supervision of the central government.
- Despite the growing interest and need for this debt instrument, not much has been done to promote and develop it; and when **promotion and education** are weak, neither issuers nor investors clearly see the differences or advantages that this instrument brings. In the first phase, it is especially important to **intensify and disperse promotional activities** on the possibilities of introduction and advantages of green bonds for financing sustainable development in Montenegro.
- **Educational workshops** should be organized at the level of departments and agencies, as well as at the local level, including business associations and the civil sector, as well as media representatives.
- In the preparation of projects, it is mandatory to hire **financial experts**, who also have multidisciplinary knowledge related to setting indicators of environmental impact, i.e. thresholds for achieving climate and energy development goals at the project level. It is necessary to organize training for available staff in this area and work on team integration.
- Further improve the quality of **financial reporting**.
- **The crisis has limited the revenues of potential issuers**, especially municipalities, which have faced declining revenues and rising indebtedness, and reduced enthusiasm for this new financial instrument. There is no credit rating for municipalities; there is only a credit rating for the state¹³².
- **Strong dependence of local budgets on the central budget** are a motivating factor that supports the development of municipal bonds, in order to reduce this dependence.

The proposal of measures to encourage green business related to creation of an environment for gradual introduction of a green bonds (a roadmap) is given in the last chapter of the study, integrally for all sectors. Measures are related to the EU action plan for financing sustainable growth (2018) that are integrated in the European Green Deal (2019). Link: Chapter II, Item 1 of the study.

¹³¹ The IDF MNE cannot accept deposits and does not receive government funding aside from an initial capital investment, and so is dependent on attracting funding from multilateral development banks or commercial sources. The Government of Montenegro remains the IDF's sole owner.

¹³² S&P: Rating B+, Outlook – Negative, 1 May 2020; Moody's: Rating B1, Outlook – Stable, 6 March 2020, <https://tradingeconomics.com/montenegro/rating>.

IV. STRATEGIC AND LEGISLATIVE FRAMEWORK FOR SUSTAINABLE DEVELOPMENT AND CLIMATE ACTION IN MONTENEGRO

Since the adoption of the **2030 Agenda for Sustainable Development** by the United Nations General Assembly in September 2015, Member States around the world have been encouraged to integrate its goals into the strategic policies and practices of their countries. The 2030 Agenda, with its 17 Sustainable Development Goals (SDGs) and 169 sub-goals, sets an ambitious agenda for eradicating all forms of poverty, suppressing inequalities, protecting the environment and tackling climate change. Gradually, the measures from this AP will be integrated into a number of **sector strategies**.

1. NSSD Vision of Sustainable Development of Montenegro until 2030

Montenegro nationalized the UN Sustainable Development Strategy 2030 by adopting the **National Sustainable Development Strategy (NSSD)** in July 2016, together with an accompanying action plan.

The National Strategy for Sustainable Development (NSSD 2030) is defined as **an umbrella, horizontal and long-term development strategy** of Montenegro that refers not only to the environment and economy, but also to human resources, valuable social capital, and recommendations for establishing a financing and management framework for sustainable development.

Out of the 169 specific objectives for sustainable development, structured in 17 SDGs, 167¹³³ were transferred to the measures defined by the **NSSD Action Plan**¹³⁴, in accordance with the national circumstances and future needs.

The NSSD 2030 Action Plan, divided into six thematic areas (human, social, natural and economic capital, and the management and financing of sustainable development) with 30 strategic goals of sustainable development of Montenegro and their 102 measures and 601 sub-measures, is an important instrument for guiding and accelerating the Agenda 2030 in Montenegro. This ambitious plan to collect 525 indicators for monitoring and reporting on NSSD includes: the UN list of SDG indicators (232); 252 national indicators; 31 indicators of various international organizations; and 10 so-called complex indicators that monitor the development of a particular society. The preparation of the first comprehensive report on the implementation of the NSSD is under way.

Montenegro is among a group of 22 UN members that have voluntarily conducted a **national review** of the planning process to enable the implementation of the 2030 Agenda at HLPF 2016.

¹³³ Only objectives 9.a and 9.c are not relevant for Montenegro, which confirms the universal nature and cross-sector and comprehensive character of the NSSD.

¹³⁴ A key part of the NSSD is the Action Plan, an ambitious 15-year development plan divided into six thematic areas (human capital, social capital, natural capital, economic capital, and management and financing for sustainable development) with 30 strategic goals of sustainable development and their 102 measures and 601 sub-measures. For each measure (group of activities), 2030 target values were defined. In the Methodology for Policy Development, Development and Monitoring of Strategic Planning Documents, measures are defined as operational objectives, and sub-measures are activities. (General Secretariat of the Government of Montenegro, 2018, p. 51.)

The 2030 NSSD strategic development document sets out a **vision of the sustainability of national development until 2030**, which consists of 10 key elements:

1. Montenegro is a **sustainable, open, tolerant, inclusive and prosperous society** in which the quality of life of each individual is continuously improved, and human and social capital are invested in.
2. The socio-economic development of Montenegro is based on a **harmonious relationship between man and nature** and efficient management of human, social, natural and economic resources.
3. Montenegro is a state of established Montenegrin identity where all differences are managed with tolerance by respecting them and treating them as **potentials and resources**
4. Montenegro is a country **governed by the rule of law** in which the dignity of every individual is respected, in which there is no discrimination on any grounds and where everyone, regardless of differences, has the opportunity and support for the full realization of their human potential.
5. Montenegro is a community based **on openness and diversity of culture**, both in terms of preserving all forms of heritage created through historical epochs, and coexistence with modern forms of cultural expression, in which areas of prominent natural, regional and cultural values are preserved and placed in the function of sustainable development.
6. In Montenegro, **demographical trends have improved** by reducing the demographical deficit and by achieving population growth by 2030 of 1.4% compared to 2015. This was achieved through the successful implementation of strategic goals and measures defined by the National Strategy for Sustainable Development until 2030, primarily those relevant to the introduction of a green economy, improving human resources and strengthening social inclusion, support values, norms and patterns of behaviour important for society.
7. In Montenegro, everyone has **equal access to quality and inclusive education** at all levels and throughout life, while the healthcare system is high-quality and efficient and provides a healthy life for citizens of all ages, especially for vulnerable groups, and health inequalities are also reduced.
8. Montenegro is **an ecological state** in which the symbiosis of a traditional human way of life and natural environment is preserved, the environment is healthy, and the values of biodiversity, water, sea, air, land, space, as well as the values of other natural resources are improved and preserved for generations to come. Ecosystem values and services have been preserved, the coverage of preserved natural, cultural and landscape values that are managed sustainably and efficiently has been improved, adaptive capacity of man, ecosystems and economic sectors to the impacts of climate change and remediation of pollution at key "black" ecological points has been increased. The share of energy coming from renewable sources is continuously growing, while energy efficiency and the transfer of technological solutions that contribute to raising the quality of life in urban areas and reducing greenhouse gas emissions are enabled. There has been a 30% reduction in greenhouse gas emissions by 2030 compared to 1990.
9. **Montenegro is achieving continuous, inclusive, regionally evenly distributed and sustainable economic development**, full and productive employment and decent work for all. Development paths for the use of natural resources on the one hand and economic activity and social welfare on the other hand diverge, and are inversely set in relation to the growth of environmental pressures, so that: i) eco-

conomic activity is focused on sustainable use of natural resources, with the reduction of negative impacts on the natural environment; ii) greening of the economy is enabled by applying patterns of sustainable consumption and production, and a resource-efficient and circular economy. The concept of sustainable economic development is affirmed, which includes: health, education, a healthy environment and sustainability of natural resources, socially responsible action, social inclusion and good governance, as an alternative to a concept based exclusively on affirming the competitiveness of the economic environment and economic growth.

10. **Montenegro has achieved the goals and tasks set by the 2030 Agenda for Sustainable Development of the United Nations** and it is successfully participating in the global partnership for sustainable development. It has established an efficient system of good governance and sustainable financing of sustainable development of Montenegrin society based on the achieved social consensus and full political support for the sustainable development of Montenegro¹³⁵.

2. Ratification of the Global Agreement on Climate Change and Montenegro's contribution to reducing greenhouse gas emissions

At the 21st Conference of the Parties (COP21) of the UN Framework Convention on Climate Change (UNFCCC), held in Paris from 30 November to 12 December 2015, the **Paris Agreement** was adopted as a global agreement on climate change, which seeks to strengthen the global response to the threat of climate change.

The main goal was determined by the countries "to keep the increase in the global average temperature well below 2°C compared to the pre-industrial period, and to make efforts to limit the temperature rise to 1.5°C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change" (Art. 2). "In order to achieve the long-term temperature goal, the parties strive to achieve the highest level of global GHG emissions as soon as possible, taking into account that developing countries will need more time to achieve this level, and then, using the best available scientific knowledge, achieve rapid emission reductions to strike a balance between anthropogenic emissions by sources and greenhouse gas removals by outflows in the long half of this century, on an equitable basis, and in the context of sustainable development and poverty eradication efforts" (Art. 4.1). The Paris Agreement recognizes that the long-term objectives set out in Articles 2 and 4.1 will be achieved over time and therefore supports the aggregation of overall and individual ambitions over time.

Nationally determined contributions (NDCs) are submitted every 5 years to the Secretariat of the UN Framework Convention on Climate Change (UNFCCC). In order to strengthen its ambitions over time, the Paris Agreement stipulates that successive NDCs represent a progression over the previous NDC and reflect its greatest possible ambition. All countries are required to submit the next round of NDCs (new NDCs or updated NDCs) until 2020 and every 5 years thereafter (e.g. until 2020, 2025, 2030), regardless of their implementation timeframes.

¹³⁵ National Strategy of Sustainable Development of Montenegro until 2030, Government of Montenegro, 2016.

The 26th Conference of the Parties (COP26) to the UN Framework Convention on Climate Change, scheduled for November 2020 in Glasgow, has been postponed due to the COVID-19 pandemic. It will be held in 2021, in Glasgow, in partnership between the United Kingdom and Italy.

Montenegro's contribution to the international community's efforts to combat climate change is expressed through the **Intended Nationally Determined Contribution** (INDC) submitted in 2015 – at least a 30% reduction in greenhouse gas emissions by 2030 compared to the 1990 base level. Montenegro became a party to the Paris Agreement in December 2017, and submitted an INDC as a Nationally Determined Contribution. In addition, it is important to note that Montenegro has initiated a review of the Intended Nationally Determined Contribution.

In addition to concerns about global climate projections of rising average annual temperatures, Montenegro is particularly exposed and vulnerable to climate hazards such as **droughts, floods, forest fires and heat waves**. Climate projections show that these climate extremes will become more frequent and pronounced in the future. Furthermore, climate change mitigation and adaptation to climate change is inseparable from energy development goals and policies.

Thus, we come to the **current climate and energy goals**, which are binding for Montenegro, and which will change further. Currently these are as follows:

The current **climate and energy goals of Montenegro** can be summarized as follows:

1. **Montenegro has committed itself to reducing GHG emissions by at least 1,572 kt CO₂eq, to a level of 3,667 kt CO₂eq or less by 2030, i.e. 30% compared to the base year 1990¹³⁶** (Ratification of the Paris Agreement, NDC). The updated GHG emissions inventory contains the results of the new GHG inventories for 2016 and 2017, a recalculation of previous time series from 1990 and as well as a general description of the measures formulated, determined and implemented by Montenegro to manage and plan GHG emission reductions. This report also contains the climate profile of Montenegro, highlighting the sectors and regions most vulnerable to climate change, as well as an analysis of potential adaptation measures.

¹³⁶ Gas Inventory 2013: Total abyss-free emissions in the base year 1990 were estimated at 5,238.52 GgCO₂eq, so by 2013 almost 40% emission reductions have already been achieved (3,178.28 (2013) compared with 5,238.52 (1990), pre-update data). However, the revised data mentions the base year 1990 level being 6,685.19 CO₂eq, so by 2017 a reduction in emissions was achieved at a level of 27.5% and it is necessary to further reduce the level of GHG emissions by 2030. In the projection until 2030, the relative share of energy in total emissions is increasing.

Table 14. Total GHG emissions expressed in CO₂eq by sectors, 1990–2017 and WEM Scenario

Year		Energy (Gg CO ₂ eq)	Industrial production and use of products (Gg CO ₂ eq)	Emission sinks in agriculture and land use	Waste (Gg CO ₂ eq)	Total emis- sions with sinks (Gg CO ₂ eq)	Total emis- sions with- out sinks (Gg CO ₂ eq)	Sinks (Gg CO ₂ eq)
Gas inventory	1990	2,339.68	1,701.52	2,472.79	171.19	6,685.19	6,685.19	0.00
		35%	25%	37%	3%	100%		
	2015	2,455.69	355.35	720.21	266.40	3,797.65	3,797.65	0.00
	2016	2,265.80	335.13	664.42	264.86	3,530.22	3,530.22	0.00
	2017	2,370.32	351.42	1,961.18	253.89	4,936.81	4,936.81	0.00
		48%	7%	40%	5%	100%		
Scenario with existing mea- sures (WEM)	2018*	2,581.00	203.00	123.00	218.00	3,125.00	2,365.00	-760.00
	2020*	2,645.00	215.00	124.00	226.00	3,210.00	2,866.00	-344.00
	2022*	2,698.00	243.00	125.00	234.00	3,300.00	2,701.00	-599.00
	2024*	2,741.00	270.00	126.00	242.00	3,379.00	3,195.00	-184.00
	2026*	2,741.00	290.00	127.00	250.00	3,408.00	3,099.00	-309.00
	2028*	2,794.00	301.00	128.00	258.00	3,481.00	3,440.00	-41.00
	2030*	2,815.00	308.00	129.00	266.00	3,518.00	3,321.00	-197.00
		80%	9%	4%	8%	100%		
		85%	9%	4%	8%		100%	-6%

Source: GHG inventory of Montenegro, 2019/ Draft TNC, 15 May 2020¹³⁷

An updated inventory of GHG emissions was made in 2019, when emission reduction scenarios until 2030 were developed, where the “with existing measures” (WEM) scenario was presented on this occasion.

The GHG emission inventory included calculations of emissions of the following direct greenhouse gases: carbon dioxide (CO₂), methane (CH₄), nitrogen suboxide (N₂O) and synthetic gases (PFCs, HFCs and SF₆). The inventory also includes calculations for the following indirect greenhouse gases based on the EMEP/EEA (Air Pollutant Emission Inventory Guidebook) (2009): carbon monoxide (CO), nitrogen dioxide (NO₂), non-methane volatile organic compounds (NMVOC) and sulphur dioxide (SO₂).

Energy made up the largest share of total CO₂eq emissions in 2017 (48%, with a growth trend in the structure), followed by agriculture and land use. The biggest impact on emissions has been produced by electricity and heat (including an aluminium production plant)¹³⁸. Emissions from traffic are on the rise and are expected to continue to grow, given the development of tourism in Montenegro. The main contribution to emissions from industrial processes in Montenegro is given by PFCs from aluminium production, which is a by-product of electrolysis.

¹³⁷ http://www.mrt.gov.me/rubrike/javna_rasprava/224500/Javna-rasprava-o-Nacrtu-Treceg-nacionalnog-izvjestaja-Crne-Gore-o-klimatskim-promjenama.html.

¹³⁸ Energy transformation and electricity production at the Pljevlja Thermoelectric Power Plant is the most important subsector in the energy sector. The most important CO₂ emitter from the industrial sector is Podgorica Aluminium Plant (KAP) with technological processes of anode firing and electrolytic smelting of aluminium.

Net emission sinks in the categories of agriculture and land use are the result of forest land in Montenegro acting as a **carbon sink**. According to the latest data on logging and fires in forest areas, a recalculation of the total time series (from SBUR) was performed with the addition of 2016 and 2017, and the results indicate a **significantly lower sink potential** than in previous calculations. During the reporting period (1990–2017), GHG emissions from the agricultural sector decreased in almost all segments, due to reduced crop and livestock production (by about 60%) and a reduction in the total animal population. Forest land has the largest share in total emissions from the agriculture and land use sector.

During the period **2017–2030**, Montenegro aims to continue to reduce GHG emissions without jeopardizing economic growth, through the following measures:

- **In the energy sector:** (i) energy efficiency measures; (ii) increasing the share of energy from renewable sources; (iii) modernizing the energy production and distribution sector; and (iv) energy labels and eco-design;
- **In the industrial sector:** improvement of industrial technologies and processes;
- **In the transport sector:** promotion of electric vehicles;
- **In the agricultural sector:** (i) support for organic production; and (ii) organic manure;
- **In the land use, land conversion and forestry (LULUCF) sector:** (i) limiting quantities for felling in state and private forests; (ii) reduction of burned areas on an annual basis; and (iii) a further increase in the share of industrial round-wood used for durable goods;
- **In the waste sector:** (i) reduction of the share of bio-waste; and (ii) reduction of the share of bio-waste in municipal waste + additional diversion to recycling/composting¹³⁹.

The following two objectives are in the field of energy, and will be discussed in detail in the sectorial part of the study:

2. **The national target for the share of energy from renewable sources** in the total final energy consumption by 2020 is set for Montenegro at the level of **33%**, by sector (electricity 51.4%, heating and cooling 38.4% and transport 10.2%), starting from the reference share in 2009, which in Montenegro amounted to 26.3%.
3. **Indicative target for improving EE** on the side of final energy consumption for the period 2019–2021 is given in the Fourth APEE, in accordance with the EE Directive¹⁴⁰, which requires each country to start from 2017 achieving annual energy savings in the amount of 0.7% of total final energy consumption (4.16 ktoe per year in the period 2019–2021)¹⁴¹.

Given that **projections of GHG emissions until 2030 are increasingly concentrated in the energy sector**, it is possible to analyse in more detail the dynamics of GHG emissions by sector and its impact on GDP (possible future impact based on previous relations in the 12-year period 2006–2017)¹⁴².

¹³⁹ First draft of the Third National Report for Montenegro to UNFCCC, May 2020.

¹⁴⁰ Directive 2012/27/EU.

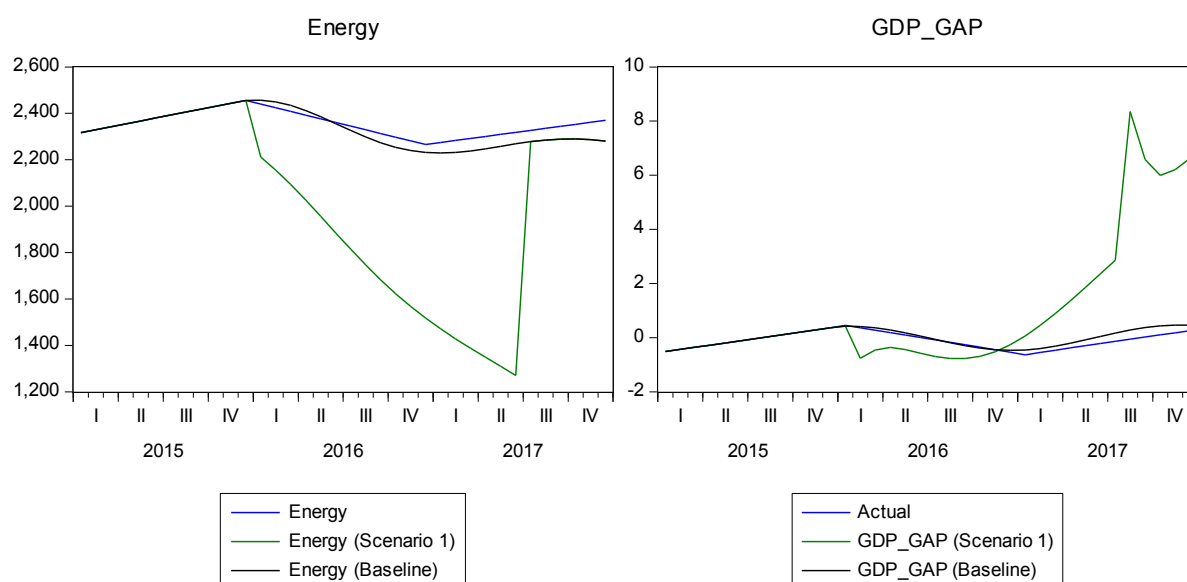
¹⁴¹ Fourth Action Plan on Energy Efficiency of Montenegro for the period 2011–2021.

¹⁴² A clear link between energy consumption from RES and non-renewable sources and their impact on economic growth in the short and long term has been proven in research: Apergis, N., & Payne, J.E., (2012). Renewable and non-renewable energy consumption-growth nexus: evidence from a panel error correction model. *Energy Economics*, Vol 34(3), 733–738.

In the SVAR model (Structural Vector Autoregressive Model), it is possible to analyse the impact of CO₂ emissions by sector on the movement of GDP in Montenegro. In a survey that included data on GDP and emissions for the period 2006–2017, the following conclusions were reached regarding the variables, i.e. the factors that most determine the future dynamics of GDP regarding the emissions.

Emissions from the energy sector mainly influence the decomposition of GDP variance: the contribution of emissions from the energy sector to GDP ranges from 37.04% to 62.1% in the dynamics of the first year of forecasting. The contribution of emissions from the sectors of agriculture and land management ranges from 2.5% to 28.6% in the dynamics of the first year of GDP forecast error variance decomposition. The contribution of emissions from the industrial sector to GDP increases from 0.94% to 5.23% in the dynamics of the first year of forecasting, which is in line with the projections of relative growth of emissions in the energy sector relative to the industrial sector (gradual limitation of stationary emissions in industry energy). The contribution of waste-sector emissions to GDP growth is also growing, which confirms the trend whereby the rate of recycling and reuse of waste is not increasing at a satisfactory pace, concerning the absolute growth of waste.

Figure 1. Output gap forecasting (GDP_GAP): an alternative scenario for reducing energy-sector emissions



As can be seen in the above figure, in the scenario of reducing CO₂ emissions from the energy sector from 2,434.87 GgCO₂eq to 1,270.43 Gg CO₂eq (44% – scenario 1) in the period from the first to the eighteenth month of the forecast, GDP would grow dynamically – from 0.06% to 8.4%, respectively. In other words, **after only a year of reducing emissions, the low-carbon economy would begin to record dynamic and robust growth** (there is a reduction in remediation costs due to environmental degradation, i.e. the costs of further pollution/or remediation costs are absent). This reduction of emissions significantly stimulates the dynamics of GDP growth, changing the sector-based contributions to growth. Based on the analysed time series, the energy sector increases its share in emissions, at the same time, most significantly contributing to the dynamics of GDP growth, compared to other sectors relevant to emissions¹⁴³.

143 Muhadinović, M., Đurović, G., & Bojaj, M.M. Forecasting Greenhouse Gas Emissions and Sustainable Growth in Montenegro: A SVAR Approach, May 2020, research, Faculty of Economics, University of Montenegro, Podgorica.

3. National Strategy on Climate Change

The National Strategy on Climate Change (NSCC), adopted in September 2015, represents a key strategic overview of the area of climate change in Montenegro until 2030. It provides guidelines for climate change policies, as well as an analysis of mitigation measures and actions that will be implemented in this period to reduce greenhouse gas emissions. The NSCC has a strong focus on alignment with the EU legislative framework on climate change, as well as mitigation measures, while it is relatively unclear in terms of adaptation to climate change¹⁴⁴.

The National Strategy on Climate Change until 2030 envisages the implementation of an accompanying action plan containing 69 climate-change-mitigation measures, then 10 needs for drafting an national plan for adaptation to climate change and harmonization of domestic legislation with EU regulations in the field of climate change.

The Strategy on Climate Change, as well as the NSSD, cannot be implemented without integrating the objectives of this strategy into relevant **sector-based strategies and policies**. Also, it is necessary to define market instruments and provide state aid for the implementation of the objectives of the strategy.

Table 15. Recommended measures in the field of climate change strategy

No.	Measure	Indicator
Short-term measures (2015–2020)		
1	Increasing energy efficiency in production, transmission and distribution of electricity	Application of BAT (best available technologies) in production, transmission and distribution; Introduction of smart grids.
2	Establishment of a district heating system in Pljevlja	Preparation of project documentation; Economic analysis of the profitability of the transition to district heating; Raising public awareness of the benefits of district heating.
3	High energy savings in transport	20% increase in the use of alternative fuels; Established retail sale of biofuels; Developed power supply network for electric vehicles.
4	Increasing the use of information systems (ICT) in the use of energy and transport – use of smart urban applications	20% increase in the use of appropriate ICT systems in the field of energy and transport.
5	Diversion of waste streams from landfill to recycling and composting	Reduction of methane emissions from landfills of up to 50%.
6	Reduction of GHG emissions from agricultural activities	Reduction of the use of nitrogen fertilizers; Application of technologies for collecting biogas from manure.
7	Sustainable planning of land use	Integrating climate change policy into national and local land use plans; Integrating climate change adaptation measures into national planning and risk management.
Medium-term measures (2015–2025)		
8	Increasing energy efficiency in renovated buildings.	50% of renovated buildings must meet one of these building standards by 2025: 'Living Building Challenge', green building, LEED, sustainable green development standard, or passive houses.

144 UNFCCC, Second Biennial Updated Report on Climate Change in Montenegro, April 2019, p.5.

9	High energy efficiency for all newly built facilities.	50% of new buildings with a building permit must meet one of the following green building standards 2025: 'Living Building Challenge', green building, LEED, sustainable green development standard, or passive houses.
10	High degree of integration of climate change policy into relevant sector-based policies	Inclusion of climate change adaptation and mitigation in: long--term planning and research activities of different industrial sectors; construction and transport sectors; as well as forestry policy.
11	Development of the National Plan for Adaptation to Climate Change	
Long-term measures (2015–2030)		
11	Significant and highly standardized production of electricity from RES	30% increase in the generation of hydro and wind energy, several demonstration plants for energy from biomass.
12	Decarbonization of energy sources that are competitive in the market	20% increase in micro-production, such as solar PV systems and solar hot water systems for home use.
13	Improvement of forecasting and warning systems for extreme weather events	Procurement of radar equipment and early-warning systems
14	Improvement of administrative capacity in the field of climate change	Capacity building in line with the recommendations of Chapter 7 of the strategy
15	Improving the capacity of local authorities to develop local energy plans and plans for sustainable urban mobility	

Large investments are needed to transform the Montenegrin economy in a way that achieves climate, environment and socially sustainable goals, including the Paris Agreement and the UN Sustainable Development Goals.

The SDGs, together with the Paris Agreement on Climate Change, are a **roadmap** to a better world and a global framework for international cooperation in the field of sustainable development and its economic, social, environmental and governance dimensions. The EU is one of the leading powers behind the 2030 Agenda of the United Nations and it is fully committed to its implementation.

The SDG Summit 2019 under the auspices of the UN General Assembly (the first UN Summit on Sustainable Development Goals since the adoption of the 2030 Agenda) was held from 24 to 25 September 2019 in New York. The SDG Summit was informed by the 4-year Global Report on Sustainable Development (GSDR). The GSDR warned that no country is on track to achieve all the goals of sustainable development and that negative trends – especially growing inequalities, climate change, biodiversity loss and increasing waste production – could irreversibly endanger human living conditions. States and other actors are voluntarily taking an important initiative to contribute to accelerating the implementation of the 2030 Agenda: **“SDG Acceleration Action”**. By 2020, 146 actions to accelerate all SDGs have been registered online by national governments, local and regional governments, the United Nations system, other intergovernmental organizations, international and regional financial institutions, major groups and other stakeholders, including the private sector, civil society organizations, academic and research institutions, the scientific community and other actors – individually or in partnership¹⁴⁵. The United Nations Department of Economic and Social Affairs (UN DESA) has reviewed all SDG acceleration actions and made them available on a dedicated portal¹⁴⁶.

¹⁴⁵ SDG Summit – SDG acceleration actions, information note, 2019 (<https://sustainabledevelopment.un.org/sdgsummit>).

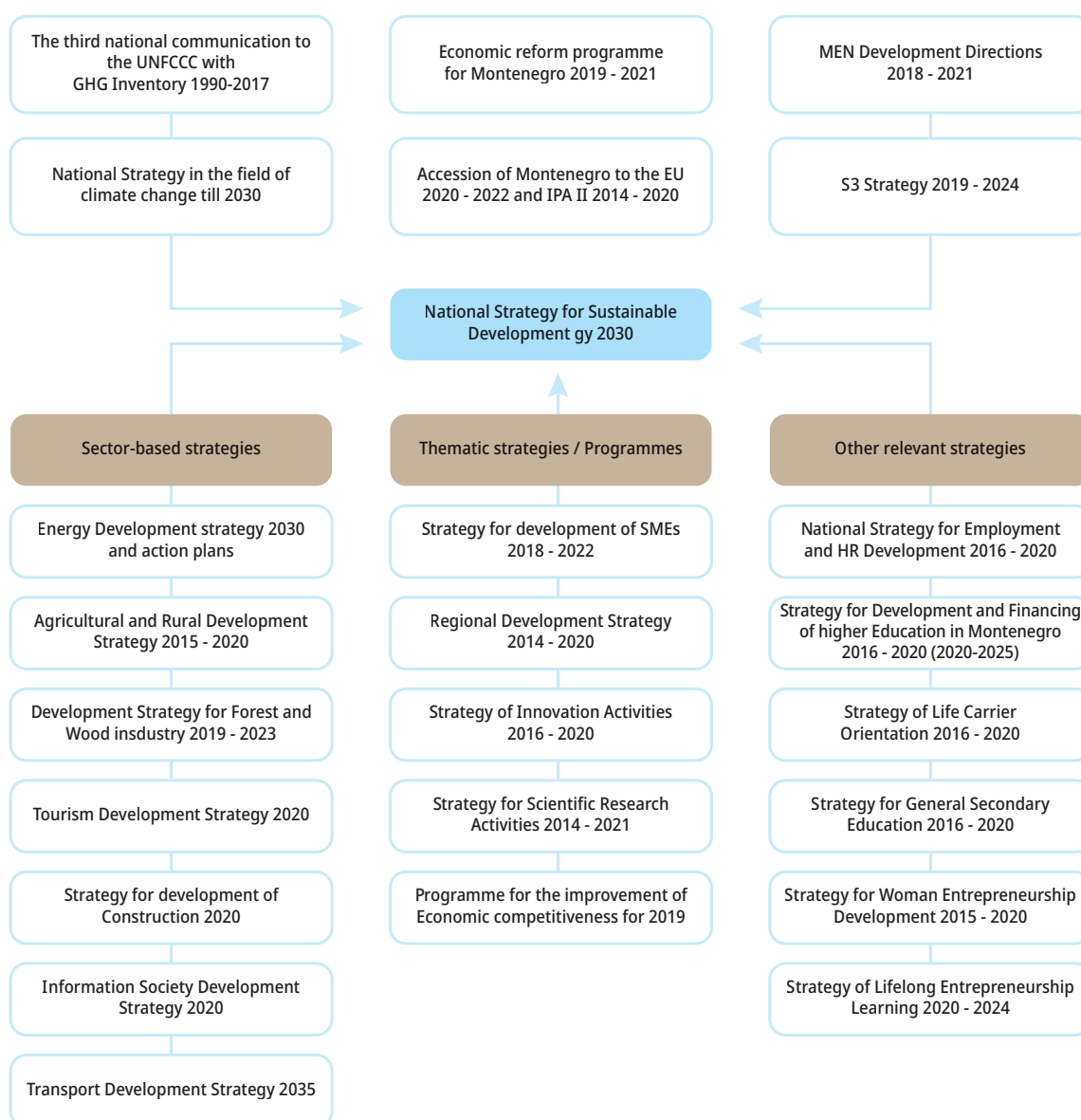
¹⁴⁶ <https://sustainabledevelopment.un.org/sdgactions>.

4. Development policy framework

The NSSD states that by 2030, all **sector-level policies** will be harmonized with the NSSD, while the government has determined three priorities that will be previously analysed and harmonized (agriculture, energy and tourism). It is also noted that where sector policies are considered incompatible, efforts should be made to amend existing regulations to bring them into line with the 2030 Agenda and the strategic goals and policy measures for the sustainable development of Montenegro¹⁴⁷.

Therefore, **the development policy framework of Montenegro should be analysed through the prism of economic as well as environmental factors and broader, social development goals**, as shown in the following scheme.

Scheme 4. Montenegro's development policy framework, which includes strategic horizontal documents in the field of sustainable development and climate change



¹⁴⁷ United Nations in Montenegro and Government of Montenegro (2018). Unravelling Connections: EU Accession and the 2030 Agenda – Case of Montenegro. p. 12. Available at: https://www.un.org.me/Library/SDGs-Post-2015-and-MDGs/2019_Unraveling%20Connections%20-%20EU%20Accession%20and%20the%202030%20Agenda.pdf.

The 2030 NSSD remains a framework and long-term strategy for the sustainable development of Montenegro, and in accordance with the Law on Protection against Negative Impacts of Climate Change, it is necessary to begin the process of drafting the **Low-Carbon Development Strategy of Montenegro for the next 30-year period** until 2050, as the countries do EU. It is also necessary to prepare a **National Energy and Climate Plan until 2030** and to lay the foundations for Montenegro's innovated Energy Policy.

A special contribution to defining the development policy of Montenegro is given by **the Smart Specialization Strategy 2019–2024**, which defines three vertical priorities: sustainable agriculture and food value chain; energy and sustainable environment; and sustainable and health tourism. The horizontal priority, which supports all previous priorities, is information and communication technologies.

5. Sustainable development and the European integration

As a member of the UN, Montenegro has committed itself to achieving the UN Sustainable Development Goals, while in parallel negotiating full membership of the European Union (EU) since June 2012. After eight years of negotiations, good dynamics have been achieved in terms of opening negotiation chapters (32 of 33, later expanded to 35), while only three chapters have been temporarily closed (25, 26 and 30).¹⁴⁸

The synergy between the EU accession process and the 2030 Agenda UN and its 17 sustainable development goals is evident. The chapters for negotiations that have the greatest impact on achieving the Sustainable Development Goals are Chapter 27: Environment and Climate Change; 23: Justice and Fundamental Rights; and 19: Social Policy and Employment. However, important links have been identified in Chapter 11: Agriculture and Rural Development (also Chapters 12 and 13); Chapter 15: Energy; and Chapter 20: Entrepreneurship and Industrial Policy (which include tourism as an economic sector).

Although synergies and complementarities have been identified between the UN and EU agendas, both processes remain very challenging for a small country like Montenegro.

In this context, the 2030 Agenda as a universal, global development programme is “nationalized” by the adoption of the NSSD, while the process of European integration is an instrument for the “EUization” of Montenegro with strictly defined goals, i.e. achieving EU norms and standards by meeting the closing benchmarks of negotiating chapters. We can conclude that the EU agenda is narrower than the 2030 Agenda, bearing in mind that the scope of the SDGs is significantly wider than the scope of the accession criteria.

Within the above context, the project should focus on understanding and identifying the potentials and options of incentive policies for green business in the **agricultural, tourism and energy sectors**. The goal is to enable the development of the roadmap and its further adoption and implementation in the Montenegrin political framework and thus contribute to a better investment environment.

6. Legislative framework and potential for strengthening green business

In the past, Montenegro has made significant assumptions in the normative and institutional framework for developing green business. At the political level, the strategic documents of the Government of Montenegro indicate the importance of green business and the need for its implementation. Within the normative framework, through a series of regulations, different legal forces and content, elements can be found that directly

¹⁴⁸ Chapter 25: Science and Research; Chapter 26: Education and Culture; and Chapter 30: External Relations.

or indirectly support the development of green business in Montenegro. In relation to their legal force, they can be classified into: constitutional provisions on green affairs; laws; and by-laws governing this topic. Hereinafter, the most significant legal acts, which directly or indirectly promote the concept of the green economy, are highlighted.¹⁴⁹

The above analysis does not cover all possible activities, but provides an overview of the most important regulations in accordance with the description of priority economic activities with a significant contribution to the EU Taxonomy of Greenhouse Gas Emissions (March 2020 revision – Climate Change Mitigation), to which one of the submitted *Policy Evaluation Report and Incentive Measures* is appended.

- **Constitution of Montenegro** (“Official Gazette of Montenegro” Nos. 1/07 & 38/13). The Montenegrin Constitution does not directly mention green business. However, in the section of the Constitution titled “Economic, Social, Cultural Rights and Freedoms”, there is also a legal basis for the realization of green business. First, through the protection of property rights and the freedom of entrepreneurship. In accordance with the Constitution of Montenegro, “the freedom of entrepreneurship can be restricted only if it is necessary for the protection of human health, the environment, natural resources, cultural heritage or security and the defence of Montenegro”¹⁵⁰. Therefore, in situations where the activities carried out by said activities are not harmful to human health, environmental protection, the natural resources, cultural heritage or security and defence of Montenegro, there is no legal basis for restricting them. In addition, the mentioned activities are indirectly protected by the provisions of the right to work and free choice of profession¹⁵¹.
- **Law on Classification of Activities** (“Official Gazette of Montenegro” No. 18/11). The legal system of Montenegro does not recognize the term green business as a form of activity for which a particular legal entity may register. The Classification of Activities Act regulates the classification of activities as a general standard according to which the classification of units by activity is classified. The units of classification are: companies, cooperatives, banks, insurance companies, broker-dealer companies, financial leasing providers, other legal forms of economic entities, entrepreneurs, agricultural holdings, institutions, state bodies, bodies of local self-government units, political parties, trade union organizations and parts of foreign legal entities, as well as other organizations performing activities. The activities are classified into four hierarchical levels, namely: sectors, areas, branches and groups. This law recognizes 21 sectors of activity that are divided into areas, branches and groups. Therefore, this legal act is the legal basis for determining the jobs that, provided they meet the established criteria, could be defined as green jobs and then recognized in the legal system.
- **Law on Environment Protection** (“Official Gazette of Montenegro” Nos. 52/16 & 73/19), as an umbrella law in the field of environmental protection, and other regulations in the field of environmental protection;
- **Law on Protection against the Negative Effects of Climate Change** (“Official Gazette of Montenegro” No. 73/19);
- **Law on Industrial Emissions** (“Official Gazette of Montenegro” No. 17/19);

149 More about green business in Montenegro: Government of Montenegro – Ministry of Sustainable Development and Tourism, Development of a more favourable environment for green jobs and businesses, 2017.

150 Constitution of Montenegro, Article 58 p.2.

151 Everyone has the right to work, to free choice of occupation and employment, to just and humane working conditions and to protection during unemployment.

- **Law on Business Organization** ("Official Gazette of Montenegro" Nos. 6/02, 17/07, 80/08 40/10, 36/11 & 40/11);
- **Law on Innovative Activity** ("Official Gazette of Montenegro" No. 42/16).
- **Law on Agriculture and Rural Development** ("Official Gazette of Montenegro" Nos. 56/09, 18/11, 40/11, 34/14, 1/15, 30/17 and 51/17). This law regulates: the development of agriculture and rural areas; the goals and measures of agricultural policy; incentives in agriculture and conditions for their realization; the rights and obligations of beneficiaries of incentives; supplementary activities in agriculture; organization in agriculture; and other issues of importance for agricultural development and rural areas.
- **Law on Forests** ("Official Gazette of Montenegro" Nos. 74/10, 40/11 and 47/15) and a set of other regulations in the field of agriculture, fisheries and forestry.
- **Law on Energy** ("Official Gazette of Montenegro" Nos. 5/16 and 51/17) and a set of other regulations in the field of electricity, gas, steam and air conditioning supply.
- **Law on Efficient Energy Use** ("Official Gazette of Montenegro" Nos. 57/14, 3/15 and 25/19).
- **Law on Investment and Development Fund of Montenegro** ("Official Gazette of Montenegro" Nos. 88/09, 40/10 and 80/17).
- **Legislative framework in the field of transport and storage** (Law on Safety, Organization and Efficiency of Rail Transport, Law on Transport in Road Transport, etc.).
- **Law in the area of industrial policy, information and communication technologies, etc.**

Since this study deals in more detail with the priority sectors – agriculture, energy and tourism – in the second section, here we will only look at the key horizontal regulations for strengthening green business in Montenegro.

Legislative framework – key horizontal principles

- **Law on Environmental Protection** ("Official Gazette of Montenegro" Nos. 52/16 and 73/19), an umbrella law governing the principles of environmental protection and sustainable development, environmental instruments and measures and other environmental issues. In the context of the project assignment, it should also be stated that this law enables the establishment of the **Environmental Protection Fund** by a special government decision ("Official Gazette of Montenegro" Nos. 81/18 and 5/20). **Other environmental regulations under all policies** (air quality, waste management, water quality, nature protection, industrial pollution, chemicals, noise, civil protection and climate change).
- **Law on Protection against Negative Impacts of Climate Change** ("Official Gazette of Montenegro" No. 73/19) regulating protection against the negative impacts of climate change, reducing greenhouse gas emissions, protecting the ozone layer and other issues related to protection from the negative impacts of climate change. Protection against the negative impacts of climate change is implemented by reducing greenhouse gases and ozone-depleting substances to a scientifically determined level, in a cost-effective and cost-effective manner. The law introduces the obligation to develop a Low-Carbon Development Strategy, National Climate Change Adaptation Plan (national

adaptation plan), preparation of greenhouse gas level projections, GHG gas level projection reports, a GHG gas inventory, obtaining special permits for GHG emissions in industrial plants, monitoring reporting and verification of greenhouse gas emissions for aircraft operators and industrial and energy installations, as well as issuing permits for activities that deplete the ozone layer. The law is designed so that it does not represent an obstacle to the competitiveness of the Montenegrin economy, but facilitates its integration into the global market in accordance with current trends and rules of international economic policy.

- **Law on Industrial Emissions** (“Official Gazette of Montenegro” No. 17/19), which regulates measures for the prevention and monitoring of emissions from industrial plants which can have adverse effects on human health, the environment or material goods, and other issues of importance for the integrated prevention and monitoring of environmental pollution.
- **Decree on activities that emit greenhouse gases for which a permit for the emission of greenhouse gases is issued** (“Official Gazette of Montenegro” No. 8/20), which introduced a normative framework for limiting the emission of greenhouse gases from industrial and energy plants in the country, which means that a system for limited emissions and trade in greenhouse gas emissions has been established at the national level. The key elements of this regulation include: the specifying of the operators participating in the emissions trading scheme (ETS); determining of the total amount and minimum price of emission credits sold at auction; the manner of recording the granted emission credits, their transfer and use, as well as the purpose of the funds collected by the auction of emission credits. Finally, this regulation paves the way for the implementation of a national ETS containing an auction lowest price that could ultimately help the market to connect with the EU-ETS. The funds will be directed to the Environmental Protection Fund, and the income will be allocated for environmental protection measures, support for renewable energy production and financing of innovations.

7. The Investment and Development Fund of Montenegro JSC and its role in promoting green business in Montenegro

7.1. Programmes of the Investment and Development Fund of Montenegro

The Investment and Development Fund of Montenegro (IDF MNE) was established by the Law on the Investment and Development Fund of Montenegro JSC (“Official Gazette of Montenegro” No. 88/09). The Institution was established with the purpose of encouraging and facilitating the economic development of Montenegro. By establishing the Investment and Development Fund, the Government of Montenegro has provided for an efficient mechanism of supporting economic development, in line with the defined development priorities. The fund’s core business is established through granting loans and extending guarantees, performing activities pertaining to the sale of capital in the fund’s portfolio and other activities aimed at supporting economic development¹⁵².

In the past period, the Investment and Development Fund of Montenegro of Montenegro JSC (IDF) has developed a **respectable number of credit lines, which also include numerous incentive measures**.

¹⁵² <https://www.irfcg.me/en/2014-03-05-12-55-38/2014-03-05-12-56-48>.

The IDF's credit lines in 2020 relate to the following **areas**: 1. Entrepreneurship; 2. Agriculture; 3. Tourism; 4. Production; 5. Services; 6. Liquidity; 7. Fostering competitiveness; 8. Green field; 9. Infrastructure projects; and 10. The EU COSME investment support programme. Amendments to the medium-term plan in May 2020¹⁵³ created three more new liquidity credit lines, as part of the overall measures to overcome the economic crisis caused by the COVID-19 health crisis.

Table 16. Investment and Development Fund of Montenegro's credit lines in 2020¹⁵⁴

I.	ENTREPRENEURSHIP
1	Support programme for university graduates
2	Credit programme for technology surpluses
3	Support programme for women in business – UNDP
4	Support programme for women in business
5	Support programme for women in business – START UP
6	Support programme for entrepreneurship development
7	Credit programme for beginners in business – START UP
8	Credit programme for young people in business
9	Development credits for micro, small and medium businesses – CEB
10	Permanent working capital financing programme for micro, small and medium businesses – CEB
II.	AGRICULTURE
1	Support programme for agriculture and food production
2	Support programme for agriculture development – IPARD
3	Support programme for agriculture development – IPARD-like
4	Support programme for agriculture development – agriculture budget
5	Support programme for agriculture development – purchase of agricultural products
III.	TOURISM
1	Support programme for new hotel capacity building
2	Support programme for improvement of existing apartment and hotel capacities
3	Support programme to improve the tourist infrastructure and non-boarding offer
4	Support programme for the catering industry
IV.	PRODUCTION
1	Support programme for production
2	Support programme for companies in the field of wood processing
3	Support programme for clusters
4	Support programme for industry modernization
V.	SERVICES

¹⁵³ Proposed amendments to the medium-term plan of the Investment and Development Fund of Montenegro JSC for the period 2019–2022 due to the new situation caused by the coronavirus pandemic, IDF MNE JSC, Government of Montenegro, 14 May 2020.

¹⁵⁴ <https://www.irfcg.me/me/>.

1	Support programme for service companies
2	Support programme for investment in the ICT sector
3	Programme of entrepreneurship development in culture and art
VI.	LIQUIDITY
1	Refinancing of current credit indebtedness
2	Permanent working capital financing programme
3	Short-term credit programme
4	New credit line – Liquidity support programme for businessmen to mitigate the consequences caused by the coronavirus pandemic
5	New credit line – Media Liquidity Maintenance Support Programme to mitigate the effects caused by the coronavirus pandemic
6	New credit line – Agriculture and Fisheries Support Programme to mitigate the effects of the coronavirus pandemic
VII.	INCENTIVE TO COMPETITION
1	Programme to encourage the competitiveness of Montenegrin products/services on other markets
VIII.	GREENFIELD INVESTMENTS
1	Support programme for greenfield and brownfield investments
IX.	INFRASTRUCTURE PROJECTS
1	Credit programme for infrastructure projects and water supply projects
2	Credit programme for projects of environmental protection, energy efficiency and RES
X.	PROJECTS WITHIN THE COSME PROGRAMME
1	EU COSME support programme for investments

Within each of the mentioned areas, credit lines have been conceived, which are realized in accordance with pre-defined rules.

7.2. Priority investment sectors

Thanks to the constant focus on improving the financing model, which is aimed at supporting and improving the Montenegrin economy, from 2010 to the end of 2019 the IDF MNE invested over €1 billion. In the period 2017–2018 €385 million was approved. According to the data, in 2019, €241 million¹⁵⁵ was invested. The IDF MNE plan is to continue to invest significant financial resources to support Montenegrin entrepreneurs. The plan is to place at least €200 million in 2020¹⁵⁶.

In the summary analysis of credit support, factoring activities are excluded¹⁵⁷, in order to provide an overview of credit lines by sectors and regions.

¹⁵⁵ Work Report of the IDF MNE JSC for 2019, Government of Montenegro, 14 May 2020.

¹⁵⁶ IDF Montenegro JLC, Annual Work Plan for 2020, December 2019, pp.2–3.

¹⁵⁷ Indicatively, in the period 2017–2019, factoring activities engaged around 37% of the fund's total support.

Table 17. IDF MNE credit lines per economic activity/sector 2010–2019

	AGRICULTURE			PRODUCTION			FOOD PRODUCTION			TOURISM			SERVICES			TRADE			OTHER			TOTAL SUM	
Year	No.	EUR	%	No.	EUR	%	No.	EUR	%	No.	EUR	%	No.	EUR	%	No.	EUR	%	No.	EUR	%	EUR	No.
2010	8	188	2.6	23	2,540	35.3	19	1,725	24.0	14	1,452	20.2	18	1,289	17.9							7,194	82
2011	79	1,485	8.3	42	5,227	29.3	24	2,523	14.2	25	2,365	13.3	39	6,111	34.3				1	120	0.7	17,831	210
2012	49	1,041	4.8	16	2,441	11.2	32	3,568	16.4	17	4,588	21.1	37	4,886	22.5				9	5,184	23.9	21,708	160
2013	45	765	2.0	26	8,810	23.3	31	7,706	20.4	31	10,599	28.0	38	9,425	24.9				1	500	1.3	37,806	172
2014	125	3,612	8.7	32	6,818	16.4	34	8,452	20.4	26	9,766	23.5	49	8,879	21.4	13	3,963	9.6				41,490	279
2015	47	2,121	3.3	46	12,449	19.6	25	8,589	13.5	50	28,148	44.3	75	9,311	14.6	10	940	1.5	1	2,000	3.1	63,558	254
2016	121	3,554	4.9	56	12,066	16.7	32	6,693	9.3	56	19,116	26.5	117	22,493	31.2	35	8,279	11.5				72,201	417
2017	122	8,201	7.4	60	22,025	19.9	32	9,216	8.3	41	25,190	22.7	111	24,724	22.3	39	21,350	19.2	2	250	0.2	110,955	407
2018	40	2,757	1.9	62	22,518	15.7	20	14,019	9.8	61	48,642	33.9	132	27,828	19.4	58	29,930	20.8				145,694	373
2019	105	5,495	3.9	41	23,409	16.8	19	14,929	10.7	45	18,506	13.3	162	58,646	42.0	68	18,611	13.3				139,595	440
	741	29,218	4%	404	118,303	18%	268	77,421	12%	366	168,372	26%	778	173,591	26%	223	83,073	13%	14	8,054	1%	658,033	2,794

Source: Internal documentation IDF MNE, 2020.

In the period 2010–2019 the IDF MNE invested €658,033 million in the Montenegrin economy. Investment grew an average of **45% annually**. **Most placements (in EUR)** were realized in the services and tourism sectors (26% each), while 18% was invested in manufacturing, and 13% and 12% in the trade and food production sectors, respectively. The lowest amount was invested in agricultural production (4%), while the other activities were below 1%. A total of 66% was placed in services. Given that services account for 72% of Gross Value Added (2018), in the structure of investment by industry a **slight relative advantage is given to investment in production, food production and agriculture** (which make up 28% of GVA and 34% of the investment structure of the IDF in the stated 10-year period).

Analysis of **the number of approved loans** shows that most were in the services sector (28%) and agriculture (27%), followed by the manufacturing sector (14%) and tourism (13%). In the food production sector, 10% of the loans were approved, while the smallest percentage was in the trade sector (8%).

When we look at the **regional structure**, the largest number of loans was placed in the central region, in terms of both number and financial value (54% of the total loans and 52% of the total value), while in the southern region 17% of loans were placed, which is 28% of the total loans. In the northern region, 29% of credit lines were placed, which is 19% of the total value of placements¹⁵⁸.

7.3. Incentive measures

The **incentives** through which the IDF MNE JSC contributes to its core mission are numerous. Their analysis suggests that they can be divided into several groups:

- First, the incentive measures contained in **the low interest rate**. For example, 0% in the case of high school lending programmes, technical surpluses, support for women in business – start up, i.e. a more favourable interest rate than loans made with commercial banks.
- The second group of incentives relates to a **favourable grace period** (up to 4 years).
- The third group of incentive measures relates to benefits, i.e. benefits related to the **cost of processing the loan**. In most cases, the cost of processing loans for projects implemented in the municipalities of the northern region and in municipalities with a development index which is below the country average is lower than in other municipalities. In this way, the IDF, following the policy of the

¹⁵⁸ Internal documentation of the IDF MNE, April 2020.

Government of Montenegro on sustainable economic development, is stimulating the development of entrepreneurship in these regions.

- The fourth group of incentive measures refers to the so-called **special lending conditions** for entities implementing projects in the municipalities of the northern region and in municipalities whose development index is below the average for Montenegro, where the interest rate is reduced by a certain amount compared to the one anticipated annually with a proportional interest calculating method.
- **The fifth incentive group, stimulating measures in the narrow sense**, covers several different situations:
 - ▶ implementation of the project in the municipalities of the northern region and in municipalities whose development index below the average value for Montenegro;
 - ▶ for the implementation of projects employing more than five employees;
 - ▶ in a situation where the direct credit arrangement is fully covered by a commercial bank's guarantee, monetary collateral or a state (municipal) guarantee.

Note: **The above incentives can be used on one basis only.**

- Finally, the sixth incentive group (**other incentives or impairments**) can be activated in two cases:
 - ▶ when the credit arrangement is realized through the European Investment Bank;
 - ▶ in cases where the loan beneficiaries (business entities that regularly settle their tax liabilities) are on the so-called "Taxpayers White List" published by the Tax Administration of Montenegro.

Therefore, in addition to the favourable conditions contained **in the general criteria** for granting loans (interest rate, repayment period and grace period), depending on the specific case and method of project implementation (project implementation in the north of Montenegro and in municipalities whose development index is below the average for Montenegro), coverage of the loan arrangement with a commercial bank's guarantee, new employment, or realization of the loan arrangement through the funds of the European Investment Bank create conditions for **additional advantages** for the loan beneficiaries, primarily in the form of lowering the interest rate.

7.4. Development of green credit lines and performance-based payment mechanisms

The credit line "**Programme for financing projects for environmental protection, energy efficiency and renewable energy sources**" is, according to its name, "mostly" turned towards green business, especially having in mind that the goal of this programme is: stimulating cleaner production, i.e. avoiding and reducing production and emissions in the production process; encouraging the use of renewable energy sources (solar, hydropower, biomass, etc.) and other projects aimed at protecting the environment; achieving energy efficiency and the introduction of renewable energy sources; landfill recovery; encouraging avoidance and reduction of waste; waste management; waste processing and the utilization of valuable waste properties (recycling, mini thermoelectric power plants, etc.); implementation of national energy programmes,

etc.¹⁵⁹ Loans are intended for investments in **land, buildings, equipment and devices**. The amount of the loan intended for investment in working capital can be up to 30% of the total loan amount, exclusively with companies as loan users. If the loan is financed by the European Investment Bank, the funds cannot be used to finance VAT. The beneficiaries of these loans can be municipalities, the Capital City, Cetinje, companies established in the majority ownership of local governments, public companies and other legal entities. The end-users of these credit loans can be entities that have received a certificate from the Tax Administration on the absence of arrears of tax liabilities. The IDF MNE JSC implements this programme **through**: direct lending to loan users and financing of the end-users of loans through commercial banks that have established business relations with the IDF MNE JSC. Based on a loan agreement between the commercial bank and the IDF MNE JSC, the commercial bank will conclude an agreement with the end-user of the loan. Loans approved under this credit line and financed by the European Investment Bank (EIB) will be approved at an interest rate of 0.5%–0.7%¹⁶⁰ lower than the interest determined (defined) below.

The credit line “**Support Programme for Modernization of Industry**” aims to support the realization of the goals defined by the Industrial Policy of Montenegro until 2023. The loans are intended to finance the purchase of production equipment that introduces new technological solutions that have a lower negative impact on the environment, improvement of technological processes, production and services, procurement of new parts, etc., and beneficiaries can be businesses that have been operating in the manufacturing sector for at least two years. The maximum loan amount is €100,000, with an interest rate of 3.5%, a grace period of 4 years, and a repayment period of up to 12 years (including the grace period). For entities implementing projects in the municipalities of the northern region and in municipalities that are below the average value of the development index in Montenegro, the interest rate is 3%, with a reduction in the loan processing fee.

The total placement of funds through these two (greenest) credit lines of the IDF MNE in the period 2017–2019 was at the level of **€18.53 million**, which is **4.7%** of the total placed funds in that period.

The basic credit conditions, although well-adjusted to support the business activities of certain entities that are involved in the priority activities defined by this programme, also have certain shortcomings, i.e. there is **no economic assessment of the environmental impact**. There are no clear (binding) criteria that would allow a clear link between the approved loan and the environmental impact achieved by their implementation (reduction of the emissions of certain types of gases that affect climate change and environmental pollution, improving waste management, reducing energy consumption, increasing the share of renewable energy sources, increasing energy efficiency, reducing water consumption, etc.).

Given that environmental impacts are the primary goal of the IDF MNE programme for financing environmental protection projects, energy efficiency, renewable energy sources and the modernization and revitalization of industry, it can be stated that there is a need and scope to adapt and improve these credit conditions through the introduction of **new credit lines** that would define ambitious and measurable environmental objectives for new investments (e.g. performance-based grant schemes that follow a particular credit line, or brand-new green credit lines, including environmental indicators, whose progress is validated after the realization of the investment, by an independent institution).

Starting from the EU Taxonomy and potential green credit lines, the following activities could be the priorities of the new credit line (Climate Action Financing Programme) in the coming period.

¹⁵⁹ <https://www.irfcg.me/en/2017-04-07-12-37-59/programme-for-financing-environmental-protection-energy-efficacy-and-renewable-energy-sources-projects>.

¹⁶⁰ In addition to regular stimulation of the 0.5% interest rate on funds withdrawn from the EIB, it is additionally possible to achieve a stimulus at the 0.2% interest rate if a requirement of the EIET initiative related to youth employment is to use funds provided for in the contract with the EIB.

AN INDICATIVE LIST OF PROJECTS of importance for green business in the sectors of agriculture, energy and tourism could be structured as follows:

1. RENEWABLE ENERGY SOURCES:

- Use of biomass combustion systems for the production of heat and/or electricity;
- Wind farms with a total capacity of up to 10 MW (meeting the criteria for environmental protection);
- Installation of solar photovoltaic systems (preferably systems integrated into buildings);
- Solar systems for the preparation of hot process water and/or water in the heating/cooling system and/or preparation of hot sanitary water, and solar-thermal systems for drying purposes;
- Geothermal heat pumps;
- Biogas plants.

2. CONSTRUCTION (in the function of developing the priority activities of this credit line – tourism¹⁶¹, energy and agriculture):

- Replacement of old and inefficient boilers;
- Installation of micro co-generation/tri-generation systems;
- Rehabilitation of heating substations and installation of heat consumption meters (calorimeters);
- Balancing of heating systems and installation of individual heat controllers;
- Replacement of existing windows with new windows with double glazing and opaque glass;
- Thermal insulation of buildings (external walls, roofs and basements);
- Replacement of existing heating systems;
- Installation of a waste-heat-recovery system (e.g. installation of an economizer for preheating).

3. INDUSTRIAL PLANTS (in the function of developing the priority activities of this credit line):

- Co-generation – simultaneous production of heat and electricity;
- Rehabilitation and/or replacement of old boilers with more energy-efficient ones or replacement due to switching to a new type of energy source;
- Rehabilitation of the steam distribution system, steam condensate separator, etc.;
- Rehabilitation of compressed-air systems and electricity distribution;
- Waste-heat recovery;
- Installation of absorption chillers;
- Installation of motor-speed controllers (VSD);
- Process optimization, control improvement;
- Rehabilitation/replacement of existing ancillary equipment and installations;
- Energy replacement;
- Introduction of an energy management system;
- Replacement of production lines, etc.

¹⁶¹ For example, consumption of fuel and electricity by tourists in accommodation facilities (provision of accommodation services), in catering facilities (provision of food and beverage services), travel agency services, cultural services, sports and recreational services within the tourist product (construction of facilities for these purposes).

4. IMPROVEMENT OF PRODUCTION IN AGRICULTURE¹⁶² AND FORESTRY (in the function of achieving climate/energy development goals):

- Crop production (annual and perennial plantations);
- Special encouragement of organic production (organic cereals);
- Value chain in the production of wild fruit products;
- Aromatic and medicinal herbs;
- Production of honey and olive oil;
- Animal husbandry: especially value chains in the production of fresh lamb, beef prosciutto and delicatessen cheeses from cow's and goat's milk produce the highest added value in relation to the environment;
- Meat products, dairy industry;
- Fruit and vegetables;
- Wine;
- Mixed agricultural production on farms;
- Afforestation (land conversion), rehabilitation (restoration), afforestation after extreme events (reforestation), existing management (forest management), forest conservation, etc. (EU Taxonomy, NACE A.2).

8. Montenegro: Development projections

The government's economic policy in the medium term focuses on the **development of priority economic sectors**, which are defined and confirmed in all key strategic documents, namely: tourism, energy, agriculture and rural development, as well as revitalization of the industrial sector (respecting the principles of sustainable development).

The document Programme of Economic Reforms of Montenegro 2020–2022, which was adopted at the end of January 2020, presents the basic macroeconomic development scenario.

¹⁶² More details on possible projects in the study "**Identification of agricultural products with the highest added value in Montenegro and analysis of their 'value chains' with a special focus on the environment**", (January 2020, E Co. Ltd., UK, with the support of UNDP. Product groups were selected as those that have the least impact on the environment, a high degree of employability, competitiveness and export opportunities, i.e. they have the greatest potential to improve the value chain).

Table 18. Factors of production – real growth rates and share in gross value added (GVA)

Sectors	Real growth rates				Share of GDP growth				Share of GVA %			
	2019	2020	2021	2022	2019	2020	2021	2022	2019	2020	2021	2022
Agriculture	3.0	3.0	3.0	3.0	0.2	0.2	0.2	0.2	8.2	8.2	8.2	8.2
Industrial production	-4.5	3.1	3.6	4.5	-0.5	0.3	0.3	0.4	11.6	11.5	11.6	11.7
Building	12.0	5.0	0.0	4.0	0.7	0.3	0.0	0.2	7.6	7.7	7.5	7.5
Services	3.6	3.5	3.0	3.1	2.1	2.1	1.8	1.8	72.6	72.6	72.7	72.6
– of which accommodation and food services	5.5	5.5	6.0	6.0	0.4	0.4	0.5	0.5	9.2	9.3	9.6	9.9
GVA (gross value added)	3.1	2.6	2.6	2.6	2.5	2.9	2.3	2.7	100.0	100.0	100.0	100.0
Taxes reduced by subsidies	3.1	2.6	2.6	2.6	0.6	0.5	0.5	0.5				
GDP	3.1	3.4	2.8	3.2	3.1	3.4	2.8	3.2				

Source: ERP 2020–2022, January 2020, Projections of the Ministry of Finance, p. 23.

Services contribute to GVA with almost **73%**, or about **60%** of GDP. At the same time, the estimated impact of integrated tourism with travel and complementary activities on GDP is about **25%**.¹⁶³

The risks to the macroeconomic scenario identified in early 2020 relate to those effects that could negatively affect the main drivers of growth in the medium term and those related to fiscal and financial stability.

- **Changes in the pace of investment** and possible unplanned cost increases for the highway section pose a risk for this realizable scenario, with inevitable negative multiplier effects on economic developments, as well as fiscal indicators, budget revenues, deficit and debt. The multiplier effects of this materializing material would reduce aggregate demand and lower household consumption, but would also reduce imports;
- **A deficit in the implementation of fiscal consolidation measures** and structural reforms would negatively affect fiscal stability, and thus overall macroeconomic stability;
- **Adverse weather conditions** can have a significant impact on the sectors of tourism, agriculture and electricity generation;
- **Geopolitical risks** from the immediate or wider environment are increasing security challenges, which have an impact on the overall global economy through reduced investment, tourism or reduced overall economic activity, with **spill-over effects** of potentially lower growth rates for all economies. This year, these risks are more pronounced and relate to unstable relations between the United States and China as a result of the introduction of trade barriers, the introduction of sanctions against Iran, Brexit, and other geopolitical risks¹⁶⁴.

¹⁶³ EC, Spring 2020 Economic Forecast: A deep and uneven recession, an uncertain recovery, 6 May 2020, p. 140, https://ec.europa.eu/info/sites/info/files/economy-finance/ip125_en.pdf.

¹⁶⁴ The low growth scenario assumes a slower pace of investment, which are the biggest accelerators of economic growth, as well as a slower growth of revenues from the tourist sector. (Montenegro, ERP 2020–2022, January 2020, p. 23).

9. The COVID-19 pandemic as a new framework of economic functioning and change in country development projections

The risks of realizing the presented macroeconomic scenario suddenly became joined at the beginning of the year by a new and unexpected risk, which for the first time in recent economic history came from a completely different aspect – from the health sector. The World Health Organization (WHO) declared the new coronavirus outbreak a Public Health Emergency of International Concern (PHEIC) on **31 January 2020**. With incredible speed, the health crisis grew into a deep economic crisis that spread across the world.

The global economy is projected to contract sharply by –3% in 2020 as a result of the COVID-19 pandemic, a much worse contraction than during the 2008–09 financial crises (IMF, WEO, April 2020¹⁶⁵). The IMF's projection for the EU is a –7.1% GDP decrease in 2019. For the SEE region, the IMF's projections for GDP real growth rates range from 3% for Serbia, –4% for North Macedonia, –5% for Albania, Bosnia and Herzegovina and Kosovo, to –9% for Montenegro and Croatia. The European Commission, the World Bank, the EBRD and the WIIW also gave their forecasts in May.

Table 19. Projections of GDP growth rates of Montenegro, revised according to the current phase of the COVID-19 scenario

	Montenegro			IMF ¹⁶⁶ 8 April 2020	World Bank 29 April 2020 ¹⁶⁷	EC 6 May 2020 ¹⁶⁸	EBRD 12 May 2020 ¹⁶⁹	WIIW ¹⁷⁰ 7 May 2020
	ERP 2020–2022, Pre-COVID-19 scenario		MF					
	Basic	Lower growth	4 June 2020					
2019	3.5*	3.1	–	3.6	3.6	3.6	3.1	3.6
2020	3.4	1.4	–6.8%	–9.0	Basic –5.6 Lower –8.9	–5.9	–8.0	–8.0
2021	2.8	1.5	4.9%	6.5	4.8	4.4	10.5	5

Montenegro is particularly vulnerable to the economic downturn caused by the COVID-19 pandemic due to **its high reliance on the tourist sector, as well as high external financing needs**. Montenegro is facing a deep recession in 2020, with international institutions forecasting a real economic contraction of up to 9% (Table). The Ministry of Finance presented its expectations on 4 June 2020, together with the 2020 Budget amendments.

Tourism, one of the most vulnerable sectors, is a key source of revenue growth (invisible exports), for both the private sector and government fiscal revenues. At the same time, with its multiplier effect on other activities,

165 IMF, WEO, April 2020, <https://www.imf.org/en/~media/E3E05B38F9F342598E9D36A8B244DE1F.ashx>.

166 IMF, WEO, April 2020, <https://www.imf.org/en/Publications/WEO/Issues/2020/04/14/World-Economic-Outlook-April-2020-The-Great-Lockdown-49306>.

167 World Bank, press release, 29 April 2020, <https://www.worldbank.org/en/news/press-release/2020/04/29/recession-looms-for-western-balkans-as-countries-respond-to-covid-19>.

168 EC, Spring 2020 Economic Forecast: A deep and uneven recession, an uncertain recovery, 6 May 2020, https://ec.europa.eu/info/sites/info/files/economy-finance/ip125_en.pdf.

169 The reduction of 8% is based on the assumption that half of the tourist season will be affected by the COVID-19 pandemic (EBRD, Regional Economic Prospect Report, April 2020), <https://www.ebrd.com/cs/Satellite?c=Content&cid=1395290493496&d=&pagename=EBRD%2FContent%2FDownloadDocument>.

170 WIIW, The Vienna Institute for International Economic Studies, Monthly Report No. 5/2020, 7 May 2020, <https://wiiw.ac.at/may-2020-interim-forecast-update-p-5304.html>.

it generates the most employment. However, coronavirus control measures stopped tourism at a time when these activities were to enter the most important revenue period – the summer tourist season.

The spring forecasts of the European Commission, Directorate General for Economy and Finance, were published on 6 May 2020:

- **Tourism shock:** The COVID-19 pandemic is expected to push Montenegro into a deeper recession than the global financial crisis. The main transmission channel is the collapse in tourist arrivals due to the interruption of international travel due to isolation measures applied in many countries. Given that travel and tourism account for about 25% of Montenegro's total GDP, the major tourism shock will have shock effects on domestic consumption and investment, although the resulting decline in imports will absorb some of the negative impact. Conversely, the necessary growth of public spending through government aid packages to the economy and society will affect the budget deficit and cause an increase in indebtedness. This EC forecast scenario assumes that the tourist shock will continue in the second quarter of 2020, followed by a modest recovery in the third quarter, led by domestic tourists and travellers from neighbouring countries who will reach the Montenegrin coast by land after the restrictions are lifted. Air connections will take longer to re-establish, while cruise tours may suffer even more long-term damage. The rapid recovery of the economy in 2021, although possible, is exposed to a very high degree of uncertainty. The main risk for this scenario would be the resurgence of the virus and the delay in getting the vaccine before the next tourist season.
- **Decrease in trade and remittance income:** The current account deficit will be reduced for two consecutive years. Firstly, in 2020, due to the reduction of domestic demand and imports, and secondly in 2021, after the completion of works on the Bar–Boljare highway, which has largely relied on the import of construction materials, equipment and services. The fall in oil prices could contribute to narrowing the external gap, but this could be partially offset by an almost simultaneous fall in electricity and aluminium export prices. Inflows of remittances are also controversial, as Montenegrin citizens abroad also face work stoppages. No reversal of FDI flows is expected given the nature of the investment, mostly in real estate, construction and intercompany debt. However, some important foreign direct investment projects may be delayed.
- **Seasonal jobs to partially absorb the shock:** The Montenegrin labour market is characterized by strong seasonality and dependence on foreign temporary workers, especially in construction, agriculture and tourism. This situation could be facilitated by the rapid adjustment of payrolls for local businesses, mitigating to some extent the negative impact on unemployment. Employment will gradually recover in 2021, after the expected recovery of the economy.
- **Domestic-driven inflation:** In addition to a sharp drop in international oil prices, inflationary pressures are projected until 2020 due to declining domestic demand. Some probable price increases of agricultural and food products in 2020 can be offset by reductions in the prices of tourist packages and real estate prices. A modest increase in inflation is projected for 2021, after the projected recovery in consumption and employment.
- **Enterprise liquidity support:** the Montenegrin Investment and Development Fund, international financial institutions and the EU are providing credit lines and guarantees to domestic banks to facilitate liquidity for local companies. The financial sector looks stable, liquid and well capitalized, with the capacity to provide liquidity to the real sector over the forecast period. However, risks remain on the demand side, especially the ability of small businesses to recover after isolation, with the existing problem of debt levels.

- **All of the above indicates that public finances are exposed to a triple shock in 2020:** 1. The collapse of tax revenues due to the cessation of economic activities; 2. The sharp jump in health expenditures; and 3. The need to finance support measures to preserve the economy. More urgent medical needs to respond to the pandemic alone are estimated at **1.2% of GDP**, while the set of economic support measures is estimated at about **3.5% of GDP**¹⁷¹.

Table 20. Macroeconomic projections for Montenegro (MF, July 2020)

	2019	2020	2021	2022	2023
Nominal GDP in € millions	4,907.9	4,607.3	4,943.8	5,166.2	5,376.2
Nominal growth	5.2	-6.1	7.3	4.5	4.1
Real GDP growth rate	3.6	-6.8	4.9	4.2	3.4
Inflation (average)	0.4	-0.5	2.2	1.0	1.4
Core characteristics:	(% of GDP)				
Current account deficit	-15.2	-13.3	-12.6	-10.0	-8.8
Exports	44.1	32.4	39.3	42.8	44.8
Imports	65.4	51.3	58.8	60.1	61.3
Other	6.1	5.6	6.9	7.3	7.7
Household consumption	71.9	70.1	71.4	70.7	70.5
Gross investments	31.1	27.3	28.1	27	26.5
Gross fixed capital formation	27.7	23.6	24.7	23.7	23.5
Changes in inventories	3.5	3.7	3.4	3.3	3.2
Government consumption	18.3	21.5	20.0	19.6	19.3
GDP deflator	1.6	0.8	2.3	0.3	0.6
	(real growth rates, %)				
Real GDP growth	3.6	-6.8	4.9	4.2	3.4
Domestic demand	1.6	-8.6	6.1	2.0	2.6
Household consumption	2.9	-8.1	7.5	2.7	2.7
Government consumption	1.5	5.7	-3.4	2.2	2.4
Gross investments	-0.5	-16.9	9.1	0.0	2.2
Gross fixed capital formation	-1.5	-19.1	10.5	0.0	2.6
Changes in inventories	10.1	0.0	0.0	0.0	0.0
Export of goods and services	6.4	30.0	27.3	12.6	7.4
Import of goods and services	2.1	-25.2	21.3	5.3	4.4
	(share in real growth as % of GDP)				
Real GDP growth	3.6	-6.8	4.9	4.2	3.4
Domestic demand	2.0	-10.1	7.0	2.4	3.0
Household consumption	2.1	5.9	5.2	1.9	1.9
Gross investments	0.3	1.0	0.7	0.4	0.5
Gross fixed capital formation	-0.2	5.3	2.5	0.0	0.6
Changes in inventories	-0.4	5.3	2.5	0.0	0.6
Government consumption	0.3	0.0	0.0	0.0	0.0

171 EC, Spring 2020 Economic Forecast: A deep and uneven recession, an uncertain recovery, 6 May 2020.

Export of goods and services	1.4	3.3	-2.1	1.8	0.5
Import of goods and services	2.8	13.2	8.8	4.9	3.1
Real GDP growth	-1.4	16.5	-10.9	-3.1	-2.7
Macroeconomic indicators	Growth in percent unless otherwise stated				
Employment growth	2.7	-3.00	2.1	2.4	2.2
Growth of wages	0.9	-5.0	4.0	1.2	1.4
Unemployment rate	15.1	17.50	15.9	14.70	14.0
FDI as % of GDP	7.0	5.4	9.1	7.40	7.40
Domestic loans (corporate and household)	6.3	-7.3	8.8	5.4	4.9
Projection of state and public debt, and public spending deficit					
Foreign debt	3,128.7	3,208.8	3,490.8	3,545.8	3,475.8
Internal debt	580.0	500.3	471.3	419.3	390.3
State debt	3,708.7	3,709.1	3,962.1	3,965.1	3,866.1
Local self-government debt	80.6	90.0	90.0	90.0	90.0
Total public debt	3,789.3	3,799.1	4,052.1	4,055.1	3,956.1
Public debt as % of GDP	77.2%	82.5%	82.0%	78.5%	73.6%
Deficit (public spending)	97.2	291	29,91	14.73	4.87
Deficit as % of GDP	2.0%	6.3%	0.6%	0.3%	0.1%
Source: Ministry of Finance, Macroeconomic and Financial Projections 2020–2023, 9 July 2020.					

As is presented in Table 20, in the document “**Macroeconomic and Financial Projections 2020–2023**”¹⁷², the Ministry of Finance presented updated macroeconomic projections for mentioned period. The focus of macroeconomic policy will be on **economic recovery** and a return to the growth trend from 2021. The recovery will be based on fostering economic diversification and growing competitiveness. In parallel, it is necessary to commit to the consolidation of public finances in order to ensure their sustainability in the medium term (a gradual reduction of public finance deficits and public debt). In a situation of growing uncertainty at the international level, as well as a potential second wave of the pandemic, adequate fiscal policy and secure the stability of the financial system is crucial for maintaining overall macroeconomic stability.

10. Montenegro and the COVID-19 pandemic: Policy response

The COVID-19 pandemic has once again confirmed Montenegro's vulnerability to external shocks, especially to the marked decline in revenues from tourism as the country's integrated strategic product, especially bearing in mind that about 80% of the tourists stay in Montenegro between June and September¹⁷³. The intensity of the economic crisis will depend on the duration of the pandemic and the extent of the measures taken by the government to overcome the health crisis and the growing economic crisis. As a result, government revenues will decline, the fiscal deficit and public debt will increase. The full extent of the impact is difficult to quantify given that the nature of the pandemic itself is still changing dynamically, but job losses and an increase in poverty are expected. Efforts towards fiscal consolidation in recent years have strengthened the country's ability to cope with this crisis. However, the fiscal scope for a response is very limited. It is particularly limited by the high level of public debt and the absence of basic monetary policy instruments¹⁷⁴.

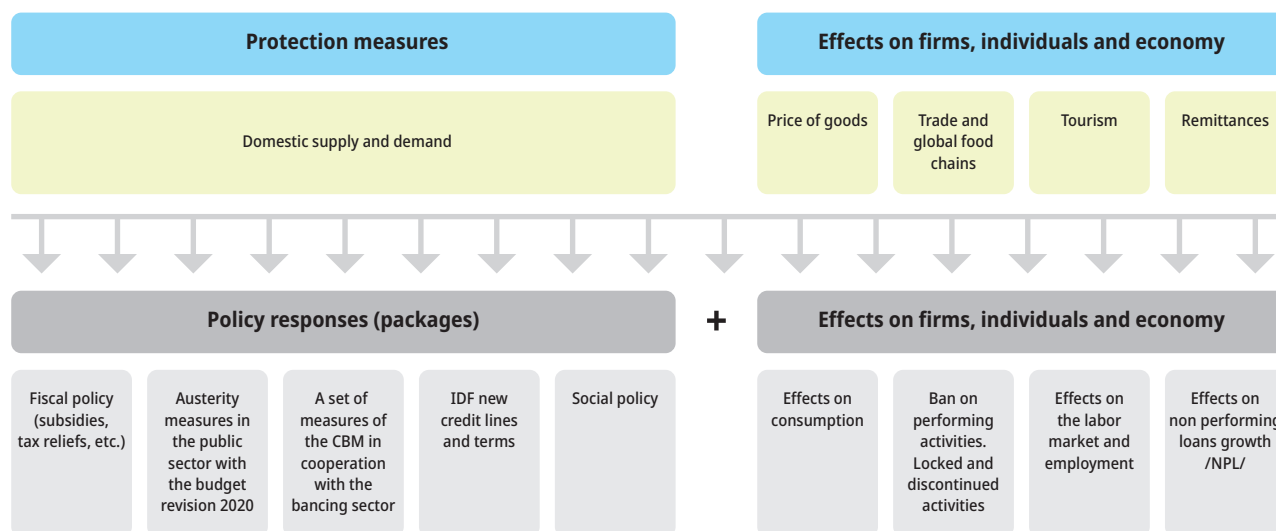
¹⁷² Ministry of Finance, Macroeconomic and Financial Projections 2020–2023, 9 July 2020.

¹⁷³ EBRD, Regional Economic Prospect Report, April 2020, pp. 20–21.

¹⁷⁴ World Bank, Country Snapshot, April 2020, p. <http://pubdocs.worldbank.org/en/387221588763270800/Montenegro-Snapshot-Apr2020.pdf>.

In terms of the speed of expansion and the extent of its impact on the economy, this new crisis has surpassed the global economic crisis of 2008. The strength of this crisis acted **symmetrically** on both the supply and demand sides, and it did not come from the economic sector, but from the health sector. More than ever, it is accompanied by uncertainty about the length and depth of the crisis. Montenegro was the last European country to register its first infection with this new virus.

Scheme 5. Montenegro: symmetrical action of the COVID-19 pandemic and policy response¹⁷⁵



Safeguards designed to help health system cope with the virus reflect both domestic demand (while people stay home and spend less) and domestic supply (fewer people are working). On the other hand, closing the border and stopping travel significantly have reduced external demand, on which our economy significantly depends.

On 17 March 2020, Montenegro became **the last European country** to record its first positive COVID-19 test. By mid-May 2020, 324 cases of the disease had been registered, most of whom had already recovered, while nine patients had lost the battle against the virus¹⁷⁶. However, as early as 13 March, 2020, the government had already adopted a **set of emergency measures** to slow the spread of the coronavirus infection, including the closure of schools, public buildings, borders and ports (other than trade in goods). Public gatherings were forbidden and it was recommended to move to working from home where it was possible to organize this. Montenegro Airlines suspended all its flights, except for organized humanitarian flights and the repatriation of Montenegrin citizens from abroad.

In the next two months, the **Institute of Public Health and the National Coordination Body** monitored and issued orders and measures related to the daily life of citizens, public health and economic activities.

¹⁷⁵ Modified according to EBRD, Regional Economic Prospect Report, April 2020, p. 4.

¹⁷⁶ www.coronainfo.me.

Table 21. First package of COVID-19 pandemic mitigation measures in Montenegro: 19 March 2020

1	MITIGATION OF THE NEGATIVE IMPACT OF THE PANDEMIC ON THE FINANCIAL SYSTEM – DELAY OF PAYMENT OF ALL LOANS FOR 90 DAYS – for businesses and citizens, a moratorium on loan payments, Central Bank Decision on temporary measures to mitigate the negative effects of the new coronavirus on the financial system (“Official Gazette of Montenegro” Nos. 019/20 of 19 March 2020 and 028/20 of 2 April 2020). Deferred re-payment of loans to individuals and businesses with all banks, microcredit institutions and the IDF for 90 days, all types of loans, including cash loans (secured and unsecured), housing loans, loans for retirees, consumer loans, investment loans, working capital loans, liquidity loans, credit products related to the use of cards, etc.
2	DELAY OF PAYMENT OF TAXES AND CONTRIBUTIONS ON WAGES AS WELL AS OBLIGATIONS ACCORDING TO THE LAW ON REPROGRAMMING FOR 90 DAYS – Postponement of payment of taxes and contributions on salaries for 90 days, later added to the second package and subsidies to the economy. Law on Reprogramming of Tax Claims (“Official Gazette of Montenegro” No. 83/16, the public call for reprogramming was in 2017 where the process was led by the Tax Administration) – postponement for 90 days.
3	CREATION OF A NEW IDF LINE FOR ECONOMIC ASSISTANCE – Liquidity, up to a maximum of €3 million per user, with IR 1.5% (EIB funds, while other sources can go up to 2% IR), grace period: 2 years, payback period: 8 years, which does not include a grace period, for entrepreneurs and SMEs, in priority areas: procurement of medicines, medical equipment, vehicles, tourism, catering, food production and processing, transport, services. The liquidity loan is intended primarily for the payment of salaries to employees for these 3 months, based on the last paid net salary; the loan is to be disbursed through banks to the current account of employees.
4	PROVIDING ASSISTANCE TO THE MOST VULNERABLE – The government has provided €1 million of assistance to the most vulnerable, (€50 for 8,500 social assistance beneficiaries and 11,900 pensioners receiving a minimum amount of €128)
5	LIMITATION AND CONTROL OF BUDGET SPENDING – With a ban on/suspension of all tenders, except necessary ones. Procurement in accordance with IPHMNE recommendations/11 March 2020, 13 March 2020 – The Property Administration, as well as the competent services of local self-government units, to procure additional quantities of hygiene products, as well as means for the disinfection of hands, work space and equipment for the needs of state bodies, state administration bodies, administrative bodies and local authorities. Procurement should be performed in accordance with the recommendations of the Institute of Public Health of Montenegro; plus – for educational and health institutions. In order to maximize the rationalization of costs, the government has introduced restrictions and strict control of budget spending, with a ban on all public procurement, except that necessary for the functioning of the health system, or emergency procurement, in accordance with the provisions of the law.
6	BUDGET SAVINGS on the gross salaries of employees in public administration (central level, local self-government units, public enterprises majority-owned by the state and/or local self-government units, public institutions, regulators and other bodies). Only basic salary payments of the variable part of salary and all budget fees for work in commissions, management boards will be suspended. It is recommended that local governments do the same. Only basic earnings. The prime minister also said that the members of the government will pay half of their salary once into the account of the National Coordination Body for Infectious Diseases. (Further) payment of NCB funds is forbidden for budget users, because the budget is unique.
7	POSTPONEMENT OF PAYMENT OF STATE-OWNED PROPERTY RENTAL FOR 90 DAYS. The government has instructed all state institutions that lease state-owned real estate to allow all tenants, upon request, to defer payment of their obligations for a period of 90 days. The measure enters into force on 1 April 2020, through which the state wants to give an example and encourage responsible behaviour towards others.

8	ADVANCE PAYMENT TO CONTRACTORS FOR INVESTMENT WORKS , where it does not endanger the health of citizens. Started capital projects will not be stopped. Continuation of the financing of started capital projects and necessary services of suppliers, through advance payments with a bank guarantee for the amount of the advance (Public Works Administration and Traffic Administration).
9	MEDIA ASSISTANCE – All measures related to the liquidity of the economy also apply to companies that are the founders of the Montenegrin media . The Media Agency is to release them from paying their fee, and the print media are to urgently provide competitive funds for their functioning. Support for local public broadcasters, through the Ministry of Culture, as one-time financial assistance.

The economic team proposed **a second package of economic measures**¹⁷⁷ aimed at providing support for the economy, employees and socially vulnerable citizens, which was adopted by the government on 24 April 2020. The programme consists of four groups of measures: subsidies; support for agriculture; economic and social measures; and a special regime for electricity costs for tourism companies.

The aim of the measures¹⁷⁸ is to contribute to the preservation of jobs and the creation of preconditions for a faster recovery of the economy and the standards of every citizen and their family. It is anticipated that the measures will apply to over 100,000 employees and thousands of entrepreneurs, micro, small and medium-sized enterprises, as well as to the unemployed¹⁷⁹ from the records of the institute, material security of the family beneficiaries and pensioners with the lowest pensions.

The following measures are proposed for entrepreneurs, micro, small and medium-sized companies employing up to 250 employees, in activities whose work is prohibited, as well as those whose work is not prohibited, but the scope of activities has been significantly reduced as a result of orders from the Ministry of Health with aim of controlling the epidemic:

¹⁷⁷ Pursuant to Article 17 of the Decree on the Government of Montenegro ("Official Gazette of Montenegro" Nos. 80/08, 14/17 and 28/18), in connection with Article 19a paragraph 1 of the Law on Regional Development ("Official Gazette of Montenegro" Nos. 20/11, 26/11, 20/15 and 47/19), in connection with Article 7 paragraph 2 item 1 of the Law on State Aid Control ("Official Gazette of Montenegro" No. 12/18), in order to reduce the negative consequences of a serious disruption in the operations of companies in Montenegro due to the outbreak of the coronavirus epidemic (COVID-19).

¹⁷⁸ The measures defined by this programme refer to entities that have settled their tax obligations as of the end of 2019 and who have not violated the orders of the Ministry of Health issued in order to combat the coronavirus epidemic. The measures also apply to entities established in 2020, ending on 15 March 2020.

¹⁷⁹ As of 31 March 2020, there were 35,632 persons on the unemployment register at the Employment Bureau.

Table 22. Second package of COVID-19 pandemic mitigation measures in Montenegro: 24 April 2020

I.	PROGRAMME FOR PROVIDING SUPPORT TO THE ECONOMY AND EMPLOYEES, IN ORDER TO MITIGATE THE NEGATIVE EFFECTS OF THE NEW COVID-19 PANDEMIC
1	SUBSIDIES FOR CLOSED ACTIVITIES (List 1 – 77 Code of activities)
	<p>A business entity can receive a subsidy, upon request, for the salaries of employees for the months of April and May 2020. The amount of the subsidy is defined in relation to the value of the minimum wage determined by the Government Decision on Determining the Minimum Wage ("Official Gazette of Montenegro" No. 33/19), by deciding the amount of taxes and contributions in proportion to earnings, up to 100% of the amount of taxes and contributions on the minimum wage and 100% of the net minimum wage for employees in the company, as recorded in February 2020.</p> <p>The subsidy is given for entrepreneurs' and employees' salaries for which the entrepreneur, who pays taxes and contributions on real income or in a lump sum, has submitted the GPPFL form for 2018 or 2019, or the ZPO form for 2020 and paid the advance payments in 2019. The subsidy is given for employees of the company who were registered in February 2020, and for whom the IOPPD form was submitted to the Tax Administration at the end of the month for which the subsidy is submitted and if the company has settled tax liabilities based on taxes and contributions for 2019. Business entities that regularly settle rescheduled tax liabilities at the time of applying for a subsidy, in accordance with the Law on Reprogramming Tax Claims ("Official Gazette of Montenegro" No. 83/16) also have the right to receive a salary subsidy. Additionally, a business entity can receive a subsidy if it does not reduce the number of employees during the duration of the measure, in relation to the number of employees recorded in February 2020.</p>
2	SUBSIDIES FOR THE TOURIST SECTOR (List 2 – 7 code of activities)
	<p>The subsidy is given to entrepreneurs, micro, small and medium-sized companies in the field of tourism whose work is not banned, but the scope of whose activities has been significantly reduced as a result of orders from the Ministry of Health to combat the coronavirus epidemic. Up to 100% of the amount of taxes and contributions on the minimum wage and 100% of the net minimum wage for employees in the company, as recorded in February 2020.</p>
3	SUBSIDIES FOR VULNERABLE ACTIVITIES (List 3 – 105 code of activities)
	<p>Entrepreneurs, micro, small and medium-sized companies in activities whose work is not prohibited, but the scope of whose activities has been significantly reduced as a result of the orders from the Ministry of Health in order to combat the epidemic, can receive subsidies on gross wages for April and May 2020.</p> <p>The subsidy does not apply to: state institutions, local self-government and companies majority owned by the state or local self-government, as well as to companies with codes of basic activities listed in Annex 3. The subsidy is realized at the amount of 50% of taxes and contributions to the minimum wages, and 50% of the net minimum wage for employees in the company who were recorded in February 2020. The amount of the difference up to the full gross salary of the employee is provided by the employer.</p> <p>Out of five newly added institutions and companies in the field of health, for those who have ceded their accommodation capacities for the needs of the implementation of quarantine measures, a subsidy at the amount of 100% of the net minimum wage is approved.</p>
4	SUBSIDIES FOR NEW EMPLOYMENT
	<p>Subsidies are given to economic entities that:</p> <ul style="list-style-type: none"> • have not reduced the number of their employees compared to February 2020, • record new employees for a period of six months starting from 1 April 2020 (who were not registered as employees of that business entity in January and February 2020) and who were simultaneously registered as unemployed persons at the Employment Service Montenegro in the previous month in relation to the month for which the application is submitted. <p>The maximum number of employees for whom a subsidy can be realized on this basis is equal to the difference between the number of employees in the month for which the request is submitted and the number of employees registered in February 2020.</p> <p>The subsidy is realized by determining the amount of taxes and contributions in proportion to the earned income, in the amount of 70% of the amount of taxes and contributions to the minimum wage and 70% of the net minimum wage. The amount of the difference to the full gross salary of the employee is provided by the employer.</p>

5	SUBSIDIES FOR EARNINGS OF EMPLOYEES ON PAID LEAVE
	An entrepreneur or a company whose employee uses the right to paid leave from work on the basis of caring for a child under the age of 11, may, upon request, receive a subsidy on gross earnings for those employees. The amount of the subsidy is 70% of the amount of taxes and contributions on the minimum wage, and 70% of the net minimum wage for employees in the company, which were recorded in February 2020. The amount of the difference up to the full gross salary of the employee is provided by the employer. The subsidy does not apply to: state institutions, local governments, companies majority-owned by the state or local governments. The subsidy is received for the period of exercising this right of the employee, upon the submitted request of the employer.
6	SUBSIDIES FOR EARNINGS OF EMPLOYEES IN QUARANTINE OR ISOLATION
	An entrepreneur or a company whose employees have been placed in quarantine or isolation on the orders of the Ministry of Health, in order to suppress the epidemic, will receive a subsidy on gross earnings for those employees upon request. Up to 70% of the net minimum wage for employees in the company registered in February 2020. The amount of the difference up to the full gross salary of the employee is provided by the employer. The subsidy does not apply to: state institutions and local governments.
II.	SPECIAL SUPPORT MEASURES FOR AGRICULTURE AND FISHERIES
7	MARKET INTERVENTION PROGRAMME
	<p>In order to maintain the existing level of production and maintain market stability, in terms of both the prices and the quantities offered on the market of agricultural products (live animals, milk and dairy products, fruits and vegetables, etc.) and fishery and aquaculture products, and maintaining the income stability of farmers and fishermen, a special Market Intervention Programme is adopted to mitigate the effects of the coronavirus crisis. This programme contains the following measures:</p> <ul style="list-style-type: none"> • Withdrawal and storage of surplus agricultural products and fishery and aquaculture products, and assistance in the distribution of products by economic entities that have adequate conditions for these activities; • Support for agricultural producers, fishermen, fish farmers and processors due to the market disruptions caused by the significant drop in prices, in order to maintain price stability and income stability; • Support for the income of agricultural producers, fishermen, fish farmers and processors due to the inability to market products, the creation of surpluses by losing the market for products that cannot be distributed, or their decline; • Assignment of surplus products to public institutions (hospitals, social housing centres, etc.), the Red Cross and others, with compensation to producers of 100% of the market value of these products. <p>Depending on the circumstances and problems that have affected individual sectors, taking into account the specifics of production, sales, etc., some of the above measures of market intervention will be initiated. The ministry shall prescribe the conditions for initiating the necessary measure by a special act. In addition to the above measures, the ministry may adopt an additional set of measures in order to maintain the continuity of production and purchase, and perform all activities related to the smooth production and distribution of agri-food and fishery and aquaculture products, bearing in mind the special sensitivity of the agri-food and products market from the fisheries and aquaculture sector, specific production conditions, and possible disturbances in the international and domestic markets that may arise as a result of the global epidemiological situation caused by the coronavirus, which are currently unpredictable.</p>
8	ONE-TIME ASSISTANCE TO FISHERMEN, HOLDERS OF COMMERCIAL FISHING LICENCES
	In Montenegro, commercial fishing is performed by 184 fishermen with a valid licence. With the closure of catering facilities, and the reduced intensity of the work of green markets, the livelihoods of commercial fishermen, their employees and their families are greatly endangered. Therefore, support is proposed in the form of one-off assistance to all commercial fishermen who are holders of a valid commercial fishing licence. The amount of this support will be determined on the basis of the catch logs entered into the Fisheries Information System for 2019. With this support, the realization of announced public calls within the Agricultural Budget continues. Financial resources required for the implementation of the measure: €200,000.
9	SUPPORT FOR THE PURCHASE OF DOMESTIC PRODUCTS
	During the COVID-19 epidemic and during the remediation of the consequences, in order to procure agricultural and food products more safely, the contracting authorities shall pay particular attention to the freshness and seasonal character of the products, as well as the length of transport of these products, in order to ensure a shorter supply chain to the environment. Affirmation of the principle of safe food. It is recommended that other procuring entities should harmonize their procurements with these principles.

10	SUPPORT FOR THE PAYMENT OF CONTRIBUTIONS TO INSURED PERSONS BASED ON AGRICULTURAL ACTIVITY
	The Ministry of Agriculture and Rural Development will pay all the contributions of insured farmers, both those that are come from the budget and the contributions that are the responsibility of the insured for a period of six months. It will include 529 insured persons who regularly pay contributions. Financial resources required: €100,000
11	ONE-TIME SUPPORT TO BENEFICIARIES OF OLD-AGE COMPENSATION
	The Law on Agriculture and Rural Development has determined that the holder of a family farm, under certain conditions, is entitled to old-age compensation. Most of such households are engaged in agriculture in rural areas and thus maintain life in the countryside. Beneficiaries of old-age benefits will be paid a one-off benefit of €64. Financial resources: €225,000
12	SUPPORT FOR TIMELY SETTLEMENT OF OBLIGATIONS TO MANUFACTURERS BY TRADE COMPANIES
	In order to shorten payment deadlines, the IDF will create a new credit line that will allow retail chains to pay for products to domestic producers within 15 days.
13	FAVOURABLE IDF CREDIT LINE FOR AGRICULTURE AND FISHERIES
	<p>The IDF will create a new credit line to support registered farmers, processors, commercial fishermen and aquaculture/mariculture licensees.</p> <p>In its portfolio, the IDF already has four credit lines intended for agriculture, which are of an investment nature and which serve for IPARD pre-financing, measures from the Agricultural Budget, as well as for the purchase of agricultural products, so this credit line is intended for registered agricultural producers, processors and commercial fishermen and holders of aquaculture/mariculture licences in order to mitigate the consequences caused by the coronavirus pandemic, through the procurement of the necessary working capital for uninterrupted production. Recall that the IDF has already provided a moratorium on instalments for existing loans for a period of three months. Lending conditions for the purchase of working capital:</p> <ul style="list-style-type: none"> – Maximum amount up to €20,000.00; – The interest rate is 1.50% per annum with a proportional method of interest calculation – Repayment period up to 2 years (including grace period); – Grace period up to 1 year. <p>Credit beneficiaries/registered agricultural producers, processors, commercial fishermen and holders of aquaculture/mariculture licences</p> <p>Purpose of the loan – procurement of working capital, raw materials, intermediate goods, semi-finished products in order to establish new production and maintain existing production</p>
14	INTEREST SUBSIDIZATION FOR A NEW IDF CREDIT LINE FOR AGRICULTURE AND FISHERIES
	For all users of the new IDF credit line for support of agriculture and fisheries, interest payments will be subsidized during the grace period. Financial resources required for the implementation of the measure: €150,000.
15	ADVANCE PAYMENT OF 80% OF THE TOTAL SUPPORT FOR PREMIUMS PER HEAD IN CATTLE, SHEEP, GOAT AND PIG BREEDING, AND PER HECTARE OF LAND AREA
	Based on the payment lists from 2019 and the data in the relevant registers of the ministry. On this basis, the advance payment would amount to about €3,500,000 and would be realized in the first half of May, which is significantly earlier than payments in previous years. The advance payment of part of the premiums provides additional security to agricultural producers and a motive to continue production. The necessary financial resources for the implementation of this measure will be provided from the already planned funds of the Agricultural Budget at an amount of €3,500,000.
III. MEASURES IN THE FIELD OF TAXES, CUSTOMS AND EARNINGS	
16	BENEFITS IN ORDER TO IMPROVE LIQUIDITY
	<p>Relief in order to improve the liquidity of the economy by reducing the deadline for VAT refunds and extending the deadline for exposure to the customs guarantee for deferred payment of customs debt. In order to implement these measures in the part of VAT refunds, it is necessary for the Tax Administration to take all the legally prescribed activities in order to determine the merits of the request for refund and, accordingly, the implementation of VAT refund within a maximum of 45 days from the date of submission. If the taxpayer has overdue and unpaid other tax liabilities, they will be settled from the VAT credit, and the remaining part will be refunded within the specified period.</p> <p>In addition to the above, economic entities that are prohibited from performing activities due to the epidemic, in order to improve liquidity should be able to defer payment of customs debt for 60 days from the date of acceptance of the customs declaration, according to the debtor's request.</p>

17	CREATION OF ADDITIONAL FISCAL SCOPE FOR IMPLEMENTATION OF THE MONTENEGRIN GOVERNMENT'S MEASURES
	In order to create additional fiscal scope for the implementation of government measures to support the economy and citizens and promote the consolidation of public finances, it is proposed to reduce the salaries of employees in public administration, categorized within the group of jobs A and B in Articles 22, 23 and 24 of the Law on Salaries of Employees in the Public Sector, for a period of two months, in accordance with the Law on Salaries of Employees in the Public Sector, through the Decision on the calculated value of the coefficient for employees in the public sector for the fiscal year 2020. The reduction of the calculated value of the coefficient would be from €90 to €45. The proposed reduction is expected to create savings of approximately €400,000 per month, or €800,000 for the duration of this measure.
18	FINANCIAL SUPPORT INSTRUMENTS
	It is necessary to design the new credit lines of the Investment and Development Fund in a way that is complementary to the measures of the government. In order to create the preconditions for the adequate implementation of measures, it is necessary to amend the Annual Work Plan of the IDF for 2020 and adjust it to the existing circumstances of the COVID-19 pandemic in order to include "providing emergency credit support for liquidity of entrepreneurs, small, medium-sized and large companies in order to provide a response to the negative consequences caused by the COVID-19 pandemic", as well as to simplify the procedures for approving loans in cooperation with the Central Bank of Montenegro.
19	SUSPENSION OF FORCED COLLECTION, FOR THE PURPOSE OF THE SOCIO-ECONOMIC PROTECTION OF ECONOMIC ENTITIES IN ACTIVITIES WHICH ARE PROHIBITED BY THE ORDER OF THE MINISTRY OF HEALTH IN ORDER TO COMBAT THE EPIDEMIC
	This measure will additionally contribute to the social protection of citizens, as well as to the protection of the economic strength of economic entities during the current situation caused by the epidemic. Namely, by postponing enforcement for a certain period of time, which, in accordance with the Law on Enforcement and Security, at the request of the enforcement creditor can be determined for up to a year by citizens on whose funds enforcement is carried out on their account, especially those or pensions for the collection of claims of executive creditors, as well as those according to which the collection of claims is made by selling their real estate, will be additionally socially protected, while delaying the payment of financial obligations of economic entities with the status of executive debtors will increase their economic power and will in significant proportion support the successful overcoming of the negative effects of the epidemic.
IV.	ADDITIONAL MEASURE FOR THE TOURIST SECTOR
20	DECISION ON SPECIAL CONDITIONS FOR ELECTRICITY TRADE DURING THE DURATION OF MEASURES TO PREVENT THE SPREAD OF THE INFECTIOUS DISEASE COVID-19
	In the period from 1 April to 30 June 2020, the calculation and collection of the fixed part of the electricity bill will not be performed for entrepreneurs and companies in the field of tourism, as well as entrepreneurs and companies whose work is prohibited by orders of the Ministry of Health in order to control the spread of infectious disease COVID-19.
V.	SOCIAL POLICY
21	MEASURES IN THE FIELD OF SOCIAL BENEFITS WITHIN THE SECOND PACKAGE OF SOCIO-ECONOMIC MEASURES OF THE GOVERNMENT OF MONTENEGRO
	<ul style="list-style-type: none"> • Providing one-time financial assistance of €50 for unemployed persons who were on the register of unemployed persons at the Employment Service of Montenegro on 31 March of the current year, and who are not exercising the right to financial compensation or material security, either as right holders or family members exercising the right to MS. • The Pension and Disability Insurance Fund of Montenegro pays 13,819 proportional pensions, i.e. pensions of pension insurance beneficiaries who have exercised this right partly on the basis of insurance in Montenegro, and partly on the basis of pension and disability insurance of other countries with insurance experience and with which Montenegro applies international social security agreements. 5,767 pensions are paid in Montenegro, at an average amount of €82.81. Identify the number of beneficiaries whose amount of Montenegrin proportional pension, together with the pension from abroad, does not exceed the amount of the lowest pension of €128.82, and provide one-time financial assistance of €50 for this category of pensioners. • EPCG announces the following measures: 1. To provide an additional discount for consumers from the category of vulnerable customers who are charged a 50% discount of the same amount as this category of consumers on the basis of electricity bills would not have any costs during the measures; 2. To double the percentage of the subsidy to other subsidized consumers, at its own expense; 3. To postpone the termination of all types of protocols on debt settlement from the previous period.

During the first 12 days of the programme (1–12 May 2020), the following results were achieved:

a new electronic service “Subsidy Programme” was implemented on the portal of the Tax Administration (<https://eprijava.tax.gov.me/TaxisPortal>) and opened for the submission of applications from 1 May 2020; 12,905 business entities were registered to have submitted applications (87% paid, i.e. 11,234); for 302 requests the processing procedure is in progress or the submission of additional documentation is required; based on the approved requests, on 13 May 2020, salaries for 46,790 employees had already been paid, or were in the process of payment; the gross amount of funds related to approved applications is €12.09 million; subsidies for new employment for the month of April were approved for 64 people¹⁸⁰.

As noted, according to EC documents, purely the more urgent medical needs to respond to the pandemic are estimated at **1.2%** of GDP, while a set of economic support measures is estimated at about **3.5%** of GDP.¹⁸¹

The reduction in tax revenues is extremely difficult to estimate, because it depends on the duration of the economic “blockade” and its effects and the deferred amount (and refund) of taxes¹⁸². Overall, a historically high **budget deficit of more than 6.3% of GDP** is expected in 2020, instead of the originally planned balanced budget. The Ministry of Finance’s estimates are that the **public debt** will increase to **82.5% in 2020**, the highest in the region. Due to the funding gap, following World Bank, IMF and EU grants, the Commission will provide **€60 million** in macro-financial support (MFA).¹⁸³

The reallocation of IPA II funds provided **€53 million in grants** for emergency medical procurement and strengthening the public health sector (construction of the Clinic for Infectious Diseases, equipment for microbiological laboratories, construction and equipping of the Centre for Infectious Diseases Prevention of the Institute of Public Health, Haematology Centre, etc.) and support for the SME sector¹⁸⁴.

During May–June 2020, the following was also prepared:

1. **Rebalance of the 2020 Budget of Montenegro**¹⁸⁵, in accordance with the projected needs of covering the missing funds for the programme of economic and social measures to mitigate the COVID-19 pandemic; a significant decline in source budget revenues was estimated due to the decline in economic activity. On the other hand, despite austerity measures, public spending increased significantly due to the COVID-19 pandemic. Due to the above, the missing funds for budget financing in 2020 amount to €878 million. To finance the missing funds, the government will, in 2020, use deposits of €540 million, while the remaining funds of up to €338 million will be provided through borrowing on the international and domestic markets, as well as through donations. In 2020, in addition to arrangements with the World Bank (€250 million), the government will sign loan arrange-

180 Information on the implementation of the programme of providing support to the economy and employees, in order to mitigate the negative effects of the epidemic of the new coronavirus COVID-19, the Government of Montenegro, 14 May 2020.

181 EC, Spring 2020 Economic Forecast: A deep and uneven recession, an uncertain recovery, 6 May 2020.

182 This year’s budget is projected at €2,644 million, of which source revenues are projected at €2,054 million.

183 Macro-financial assistance (MFA) is a form of financial assistance that the EU has extended to partner countries that have a balance of payments crisis. It is in the form of medium-/long-term loans or grants or combinations thereof and is only available to countries that benefit from the disbursement of IMF programmes. The MFA is designed for countries that are geographically, economically and politically close to the EU (candidates and potential candidates, European Neighbourhood Policy countries and, in certain circumstances, certain third countries). The aim of the MFA is to restore a sustainable external financial situation, while encouraging economic adjustment and structural reforms. The MFA can be selected as a direct budget support and can be used, as the government deems appropriate. Unlike other forms of financial assistance with macroeconomic objectives of the European Commission, such as IPA, ENPI or EDF, the MFA is an emergency measure that is not intended for regular financial support for the economic and social development of the country (https://ec.europa.eu/info/business-economy-euro/economic-and-fiscal-policy-coordination/international-economic-relations/macro-financial-assistance-mfa-non-eu-partner-countries_en).

184 Information on financial support to Montenegro for prevention of spreading and remediation of the consequences of the COVID-19 virus epidemic, Government of Montenegro, 9 April 2020.

185 Law on the Budget of Montenegro 2020, (OGM Nos. 79/19 and 61/20).

ments or become effective, of up to €327 million. The projected decline in GDP in 2019 is 6.8%. The budget deficit will reach 7.5% of GDP, while public debt will increase to 82% of GDP.¹⁸⁶ The so-called “third package” of measures will be proposed in July 2020.

2. **A new set of CBM measures to mitigate the negative effects of the pandemic**, starting from the already introduced measures:
 - Bearing in mind the need to increase the credit potential of the banking system, the CBM **reduced the required reserve rate by 2 percentage points** and released approx. €70 million, which will increase the credit potential of banks in Montenegro.
 - Also, by reducing the **price of withdrawing liquidity from the required reserve** by changing the Decision on Closer Conditions for Lending to Banks from 12% to 6%, the CBM has provided more affordable possible use of these funds, in case of liquidity needs.
 - The third quality measure refers to **the flexible treatment of loan restructuring in banks' balance sheets**, where for clients who document a decline in turnover caused by the pandemic banks are allowed to treat these loans as newly approved;
 - The possibilities of **an additional grace period after the expiration of the existing 3-month moratorium**¹⁸⁷ are being considered, as well as special incentive credit mechanisms for banks, which would be focused on the tourist industry.
 - Fourthly, it is additionally **enabled for banks to increase the exposure** to one person, i.e. a group of related parties over the prescribed exposure limits up to 25% of the bank's own funds, with the prior approval of the Central Bank.
 - The CBM has opened the door, through intensive communication for more intensive cooperation of banks, with **international financial institutions** (IFC, EBRD, etc.)¹⁸⁸

At a meeting between the representatives of the banking sector, the Ministry of Finance and the CBM, the **banking sector** itself presented its contribution in the current phase of the health crisis. Bankers provided an overview of individual activities and suggestions for more efficient action. They presented an overview of previous activities on the balance sheet positions of banks and future lending activity. Through a proactive approach, banks have provided a new €80 million source of credit, while the parent banks have provided generous sources of liquidity for their subsidiaries in Montenegro. Since the crisis, the activity of banks can be quantified by €143 million of newly approved loans and over 5,648 credit lots. In the first week of May alone, €23 million in loans was approved, which is almost the same as last year's level despite reduced demand. Finally, it was stated that the liquidity of banks and deposits are stable, and that the proposed measures are contributing to the further stability of the system¹⁸⁹.

In the same way as the health system in a small country like Montenegro achieved a global feat in the fight against COVID-19 (in the first wave), so major results in economic recovery can be achieved with dedicated and good coordination of all participants in the system.

¹⁸⁶ The balance of net public debt at the end of 2019 was €3,191.7 million, plus borrowings (250 + 327), a total of €3,768.7 million, which on the projected lower GDP of €4,574 million, amounts to about 82.4% of GDP.

¹⁸⁷ The first moratorium expired on 23 June 2020. Analysing the existing effects of the moratorium, the CBM informed the banks that the proposal for the next phase of the moratorium will include an individual approach and that non-payment will not be possible for those debtors whose financial capacity is not endangered.

¹⁸⁸ <https://www.cbcbg.me/me/javnost-rada/aktuelno/saopstenja/odrzan-sastanak-guvernara-cbcbg-ministra-finansija-i-bankara?id=1726>, accessed 12 May 2020.

¹⁸⁹ Op.cit.

11. The COVID-19 pandemic and green business: Possible measures

The COVID-19 pandemic has resulted in a temporary additional reduction in greenhouse gas emissions, but their long-term impact on the environment will depend on government policies and support packages in the medium term, after exiting the COVID-19 phase.

The COVID-19 pandemic has forced the world's economies to **lock in** a large number of economic activities, resulting in major disruptions to economic activity and to the state of financial markets. One of the unintended but very positive effects of health protection measures **is a further decrease in GHG emissions**. Satellite images from the European Space Agency (ESA) show temporarily reduced levels of air pollution around the world. ESA Sentinel-5P satellite readings show that already in the second half of March 2020 NO₂ levels in cities and industrial clusters in Europe and Asia were significantly lower than in the same period last year¹⁹⁰.

Globally, the entire **transport sector** is extremely affected. The International Energy Agency (IEA) reported the **biggest drop in oil demand** in a decade in the first quarter. Global oil demand is expected to fall by a record 9.3 mmb/d (million barrels/day) in 2020¹⁹¹.

Due to the COVID-19 pandemic, people have been working more from home, travel has almost stopped and supply chains have been shortened, which has caused a reduction in CO₂ emissions. On the other hand, oil has become cheaper, which in turn can lead to higher gas emissions. In the recovery period, economic needs will be a priority for citizens, so governments will follow this trend, balancing between the short-term economic priorities of recovery, and the medium- and long-term demands of the fight to reduce GHG emissions.

How long will this trend of reducing GHG emissions last?

Experience during and after the 2008–09 financial crisis shows that it depends on government policies. Then, as now, global GHG emissions initially fell. But they recovered quickly in 2010 and have been growing steadily since then, in part because they **missed an opportunity** to use huge amounts of public money to put the world on a green path of economic recovery. Environmental standards and law enforcement are de-prioritized, investment in clean energy is delayed, and infrastructure and resource development is poorly planned¹⁹².

There is no doubt **that the COVID-19 pandemic requires a strong and immediate response**. It has turned out that transformational changes could happen and they have happened literally overnight. But in crisis management, governments – while protecting their citizens in the short term medically and economically – must also look at the long term; due to the currently low oil prices, this should not mislead them that support for recovery is also being achieved through support for the use of fossil fuels.

In some Eastern European countries, such as the Czech Republic and Poland, climate problems are being ignored and subsidies are being transferred to existing high-carbon companies (which emit significant levels of CO₂ into the atmosphere), as well as to the use of fossil fuels. It would be a **missed opportunity** for green economic activities.

190 The Guardian. (2020). "Coronavirus pandemic leading to huge drop in air pollution", 23 March 2020. Available at: <https://www.theguardian.com/environment/2020/mar/23/coronavirus-pandemic-leading-to-hugedrop-in-air-pollution>.

191 From 8 mmb/d growth in 2019, to a fall of 1 mmb/d in 2020. The first contraction in oil demand since 2009, <https://www.iea.org/reports/oil-2020>.

192 Pacca, L., Antonarakis, A., Schröder, P., and Antoniadis, A. (2020). "The effect of financial crises on air pollutant emissions: An assessment of the short- vs. medium-term effects," *Science of the Total Environment*, Vol. 698, January.

Climate change, biodiversity loss and financial collapse share some similarities with COVID-19: they do not respect national or even physical boundaries and can only be managed by collective action that begins long before these phenomena. Moreover, deforestation, biodiversity loss and climate change are making pandemics more likely. Likewise, the Intergovernmental Panel on Climate Change (IPCC) warns that global warming is likely to accelerate the emergence of new viruses.

Businesses are unlikely to arbitrarily change the way they work. Data from the latest EBRD-EIB-WB surveys show that companies in transition countries are not very aware of climate change and the challenges – more than half of them monitor energy consumption, but few have performed external audits of energy consumption or monitored CO₂ emissions. More than 7 out of 10 companies have not adopted any energy efficiency measures in the last 3 years. Moreover, 60% of them do not think that such investments are a priority over other investments.

However, the findings also suggest that firms facing pressure from customers to improve the information they disclose about their business, or firms that have suffered losses due to extreme weather events are more aware of the impact of their economic decisions on the environment and are seeking to reduce their impact on it¹⁹³. In return, for **the use of subsidies and other support instruments, companies should commit to reducing their negative impact on the environment**. More broadly, governments should put climate action and resilience at the heart of economic support packages and prioritize support for green economic affairs. This would ensure that public spending helps, in resolving both the current economic crisis and the current climate crisis.¹⁹⁴

What should and can the government do, and what can the business sector do?¹⁹⁵

1. Government:

- a) To build the capacity to **model climate risk** and to assess the cost-effectiveness of climate change. This would help to better inform about recovery programmes, to update and improve the historical models used for infrastructure planning, and to enable climate factor testing in funding programmes.
- b) To devote **part of the vast resources** allocated to the economic recovery of resilience and climate change mitigation. This would include investments in a wide range of sustainability levers, including the construction of renewable energy infrastructure, expanding the capacity of the electricity grid and increasing its resilience to increased production, refurbishment of buildings and the development and application of heavy industry decarbonization technology. The benefits of such investments are: a reduction of climate risks, with new sources of economic growth.
- c) The opportunity should be taken to **review the existing subsidy regimes** for projects that accelerate climate change.
- d) **National and international harmonization and cooperation on sustainability should be strengthened**, because internal agreements by their nature are not able to solve systemic and global problems.

¹⁹³ Regional Economic Prospects in the EBRD Regions, November 2019, London.

¹⁹⁴ EBRD, Regional Economic Prospect Report, April 2020, pp.20–21.

¹⁹⁵ Dickon, P., Rodgers, M., and Samandari, H. "Addressing climate change in a post-pandemic world, McKinsey Quarterly, article posted on 7 April 2020, <https://www.mckinsey.com/business-functions/sustainability/our-insights/addressing-climate-change-in-a-post-pandemic-world>.

2. The business sector:

- a) The moment should be used for decarbonization by **withdrawing carbon-consuming projects**.
- b) Build a **resilience system of the business sector**. Companies have new opportunities to make their business more resilient and sustainable: shorter supply chains; an increase in production and processing with higher energy efficiency; video conferencing instead of business travel; and increased digitalization of sales and marketing.
- c) Existing practices can become important components of sustainability transformation at the company level – those that track the **cost-effectiveness** and **digital transformation** efforts that are likely to be undertaken in various industries after a pandemic.

Will COVID-19 packages for the mitigation of the effects of economic crisis accelerate or slow down climate action?¹⁹⁶

In April 2020, all G20 countries (including most EU member states) adopted measures of economic recovery from COVID-19, allocating a total of more **than US\$7.3 billion**. Over 300 implemented policies of significant scope have been identified. Although rescue and recovery measures differ, most of these measures are rescue typology policies, including significant compensation schemes for workers and enterprises.

It is estimated that **4% of policies are “green”**, with the potential to reduce long-term GHG emissions, **4% are “brown”** and are likely to increase net GHG emissions beyond the base value, and **92% are “colourless”**, meaning they maintain the status quo.

The COVID-19 crisis is different from the GFC (Global Financial Crisis) of 2009, but much can still be learned from the measures taken at the time, in terms of the impact of such measures on the climate. Therefore, an analysis was performed based on 196 stimulative recovery measures conducted in response to the GFC, which showed that **63 were green, 117 colourless and 16 brown**. The lesson from the GFC is that **green incentive policies often have advantages over traditional incentives**. For example, investments in RES are attractive in both the short and long term. Renewable energy creates more jobs in the short term (higher job multiplier) when jobs are scarce in the midst of a recession, which increases consumption and increases short-term GDP multipliers (derived from growing demand). In the long run, RES needs less manpower to operate and maintain. More efficient use of labour and fuel savings means that RES will also be able to offer larger long-term multipliers.

A survey was conducted in April 2020 with 231 officials from the Ministry of Finance, central banks and other economists, representing 53 countries, including all the G20 countries, to determine the prospects for the COVID-19 fiscal recovery packages. These perspectives are relevant to policy making. A set of 25 policy archetypes – **6 rescue-type policies and 19 recovery-type policies** – was defined, following a major effort to catalogue over 700 significant G20 fiscal stimulus policies.

¹⁹⁶ Hepburn, C., O’Callaghan, B., Stern, N., Stiglitz, J., and Zenghelis, D. “Will COVID-19 fiscal recovery packages accelerate or retard progress on climate change?” Forthcoming in the Oxford Review of Economic Policy 36(S1), 4 May 2020 (<https://www.smithschool.ox.ac.uk/publications/wpapers/workingpaper20-02.pdf>).

Guidelines for policy makers:

1. Recovery policies **can achieve both economic and climate goals**. After “colourless” rescue packages, there are **a number of types of fiscal recovery policies** that offer high economic multipliers and a positive impact on the climate, such as:
 - Net investments in infrastructure in the form of renewable energy sources;
 - Construction efficiency, including improved insulation, heating and household energy storage systems;
 - Investments in natural capital for resilience and ecosystem restoration, including the restoration of carbon-rich habitats, as well as climate-friendly agriculture;
 - Support for villages, especially those related to sustainable agriculture, ecosystem restoration or clean energy facilities.
2. Co-benefits can be realized. There are ***non-economic, non-climatic attributes of climate positive policies that increase their general acceptability***. For example, incentives for electric vehicles reduce local air pollution, which is especially valuable in dense urban areas. Support for energy efficiency could be targeted at lower-income households to reduce social and health inequalities by reducing real electricity costs. New renewable energy can be used to increase electricity production in rural areas and provide support for citizens who are once on the brink of poverty. Policy makers need to act proactively to identify potential co-benefits during the policy-making phase and formulate implementation criteria to maximize impact. As national priorities and urgent social needs may obviously differ between states, the prioritization of corresponding benefits is also likely to differ.
3. **Policy design is important**. A poorly designed recovery policy is unlikely to be effective in achieving economic, climate and social results, regardless of theoretical potential. During the GFC, many governments unnecessarily wasted the opportunity for significant long-term economic benefits and climate impact.

The timeliness and flexibility of policies will be important characteristics, as it is not clear how long the pandemic will last and whether there will be a second or third wave. It also remains unclear whether the current recession will escalate into a deeper depression.

Extreme urgency was necessary when launching the rescue package. There is probably more time to ensure that recovery packages give priority to investments that deliver productive resources for the future. This will be more likely if the policy-making processes are faster, but if they also consultative and evidence-based. Success will depend on the specific social, political, environment and financial context of the actors.

IMF: Economic aspects of climate change and proposition of measures¹⁹⁷

Global climate change is **materializing and increasing**. It could reach catastrophic levels if consumption, production and investment patterns do not change in the coming years.

The choice we face – whether to act **immediately** at a still relatively low cost and while the severe effects are still reversible, or **later** at a much higher cost when the room for manoeuvre will be severely reduced. New measures, which will take some time to implement and which can be accelerated by a dynamic change in the business policy of the banking sector and international financial institutions, significantly reduce budget spending and increase revenues, and create space that can cover the resource needs of supporting policy, so that carbon price movements would be made economically and socially sustainable. The key measures are as follows:

¹⁹⁷ IMF, Position Note on Economic Aspects of Climate Change, 2019. (<https://www.imf.org/external/pubs/ft/fandd/2019/12/pdf/fd1219.pdf>).

- **Continuous review of nationally determined contributions at the global level:** The UN has focused on quantitative targets in nationally determined country contributions (NDCs) to reduce greenhouse gas emissions. These directions are on the right path, although it would be useful if they were a **little more ambitious – they need to be further reconsidered and strengthened**. However, they are not enough to mitigate climate change, as they contrast with the micro-level signals stemming from the price of coal (which does not currently fully reflect all the costs of using fossil fuels) and regulatory gaps.
- **The rapid abolition of all fossil fuel subsidies – the application of full fossil fuel prices** reduces high-carbon investments, accelerates the replacement of obsolete high-carbon technology and encourages innovation in low-carbon technologies.
- **Issuance of emission permits for large emitters** with a total amount in line with NDC targets, the relative price of carbon is on an obvious upward trajectory. That could still be a good outcome, but decades later nature could be relentless in response to our current approach of “waiting until it gets worse, and only then getting enough support for global collective action to combat climate change”.
- **Changes in taxes** for small emissions (tax incentives and incentives to reduce emissions).
- **Additional regulatory measures** – among the causes of climate change are cases of major market failures. Additional regulatory measures are needed to address these aspects. These include financing and investment standards focused on economic, social and environmental sustainability, as well as technical standards that encourage sustainability, the circular economy and the use of best technology.

V. PRIORITY GREEN BUSINESS SECTORS IN MONTENEGRO

As in almost all countries of the world, in Montenegro **the energy sector** (including transport) is the most important sector in terms of greenhouse gas emissions, representing **48%** of total emissions in 2017 (2,370.32 GgCO₂eq in 2017). In terms of direct greenhouse gas emissions, subsector 1A1: Energy production, subcategory 1A1a: Public production of electricity and heat, under which there is only the relevant coal-fired plant: Pljevlja Thermoelectric Power Plant (TPP). This plant is the only national source of electricity from fossil fuels. Emissions from fuel combustion in the transport sector predominantly come from road transport (726.43 Gg CO₂eq in 2017, which is 31% of this sector, or 15% of total emissions).

When it comes to **industrial production and use of products**, the only representative of the non-ferrous metals industry in Montenegro is the KAP aluminium plant (estimated emission in 2017 – 45.22 Gg CO₂eq). There are also Niksic Steelworks and Trebjesa Brewery. Industry created 7% of the total emissions in 2017 (351.42 GgCO₂eq).

Total emissions with sinks from the **agriculture and land-use sector** range from 2,472.79 Gg CO₂eq in 1990 to 1,961.80 Gg in 2017 (40% of total emissions in 2017). The significant difference between CO₂eq sources and sinks in the land category is the result of new updated data (deforestation, fire-affected forests and firewood felling) used for the needs of the TNC (the Third National Communication). The largest share in total emissions from the agriculture and land-use sector comes from **forest land** (3.B.1: Carbon stocks in biomass). This is followed by total logging, the use of firewood and uncontrolled fires. Due to fires, the sinks¹⁹⁸ and emissions from forest land vary from 1,064.95 Gg CO₂eq in 2001 to as much as 4,561.13 Gg CO₂eq in 2011. **Agriculture** is a source of methane (CH₄) and nitrogen suboxide (N₂O), which come from livestock and use fertilizers. The National Inventory of Greenhouse Gas Emissions shows that these two gases are most prevalent in the agricultural sector, while CO₂ emissions are negligible. During the reporting period (1990–2017), GHG emissions from the agricultural sector decreased in almost all segments, due to reduced crop and livestock production (by about 60%) and a reduction in the total animal population.

According to another national report (BUR), since 1990 Montenegro has reported that an average of about 1.5 million tCO₂ per year has been removed from forests, compensating for approximately 30% of the total annual national greenhouse gas emissions. It turned out during the audit of the GHG emissions inventory that this was an overestimation. Montenegro's current approach is to **disregard** GHG emissions/removals in the agricultural, forestry and other land-use sectors, with the intention that "this may be included at a later stage when technical conditions allow". The "with existing measures" (WEM) scenario in the Draft Third National Communication (May 2020) leads to a decrease in annual CO₂ removals due to a slight increase in the harvest compared to the historical period, which is only slightly offset by a small growth trend of annual roundwood used in long-life products. The conversion of coppices to high forests also provides an insignificant sink in such early stages of transformation into high forests. The "with additional measures" (WAM) scenario shows a **steady decline in sinks** until 2030.¹⁹⁹

Montenegro's obligations under the Paris Agreement and the United Nations Framework Convention on Climate Change (UNFCCC) call for a **significant shift in the Montenegrin economy towards a low-carbon and climate-adaptive economy** in the long run. Therefore, the key goals are:

¹⁹⁸ Forests contribute to the removal of carbon dioxide from the atmosphere by photosynthesis (so-called sink or carbon sequestration).

¹⁹⁹ Working document – Third National Communication of Montenegro on Climate Change, May 2020.

- Support for the economy/sectors in fulfilling the obligations from the Paris Agreement; and
- Presentation of the possibilities and recommended desirable options for harmonization of greenhouse gas emission pathways in Montenegro with those in the EU, in an economically acceptable and socially just way.

Montenegro's future strategy of low-carbon development will identify the adjustment options relevant for reducing GHG emissions and mitigation measures, and the action plan will assess the possibilities and propose desirable measures and actions to achieve the vision and goals of the gradual decarbonization of our economy. The Action Plan, which will be an integral part of the low-carbon strategy, will assess the possibilities and propose desirable measures and actions to achieve the vision and objectives of this strategic document.

This chapter provides an overview of the basic **indicators and incentives in the three priority sectors**, and at the end of each chapter, in the second phase of the research, the concluding assessments and recommendations will be defined, and these are the inputs for developing a roadmap for incentives in specific priority sectors in the coming period.

1. AGRICULTURE

Agriculture is one of the sectors of strategic development in Montenegro. A favourable climate for growing different species and varieties of plants, its well-preserved nature, high-quality preserved and fertile soil, a relatively low level of pollution (due to a low use of mineral fertilizers and pesticides) are elements that contribute to the development of this sector. Furthermore, the climate, richness of biodiversity and nature and its clean environment are excellent preconditions for the development of organic agriculture. Also, the available land resources are an additional advantage, together with the traditional production of products and the use of indigenous varieties, species and breeds. Increased demand for agricultural products as a result of the expansion of tourism gives realistic expectations for further progress in this sector in the future.

Despite its size, Montenegro is rich in biodiversity and genetic resources in the food production sector. The structure of agricultural production is diversified. Numerous sorts and varieties of cultivated plants, then breeds and strains of farmed animals, resulting from, on the one hand, centuries of natural selection and, on the other, planned selection and selection by man, are a very important resource and represent a good biological basis for agricultural development and food production.

The diversification of activities in a large number of different branches of agriculture is the result of the differentiated climatic influences in various regions. Thus, the coastal region is characterized by the cultivation of olives, citrus fruits and subtropical crops, and the central region – by the cultivation of fruits and vegetables, with a significant share of meat, milk and egg production. The karst region is characterized by livestock production, primarily goat farming, while the northern region is dominated by plantations of potatoes, fruits and vegetables, and by cattle and sheep breeding. Montenegro, within its relatively small area, has a significant number of populations of almost all types of livestock which are raised in areas across the Balkans.

Agriculture, as one of the recognized strategic priorities, has significant potential for employment and income generation, especially for the most vulnerable part of the population, primarily in the north of the country, where there is no great choice of alternatives.

1. A review of the strategic and legislative framework

1.1. Strategy for Development of Agriculture and Rural Areas of Montenegro 2015–2020

The Government of Montenegro, the Ministry of Agriculture and Rural Development, in June 2015 adopted the Strategy for the Development of Agriculture and Rural Areas of Montenegro 2015–2020, whose primary goal was to establish a framework and define the goals, priorities and path of development of agriculture and rural areas in Montenegro on the road to its accession to the European Union, for the period 2015–2020. This strategic document starts from the basic characteristics and specifics of the country, such as the preserved environment, the richness of biodiversity, the potential of natural resources, the current level of agricultural development and Montenegro's European commitment. Respecting the principles of multifunctionality of agriculture, the strategy recognized the key issues and challenges facing agriculture in Montenegro.

The main advantages that Montenegrin agriculture has are, above all, the high-quality preservation and fertility of the land, a favourable climate for diverse production, as well as a decades-long tradition of agricultural production. Additional advantages are the diversity of biodiversity, the presence of indigenous species and varieties in agriculture and good conditions for organic production. In addition to the above, Montenegro still has enough available labour that is seeking additional employment opportunities, and there have been evident changes in the institutional framework in recent times, as well as evident positive changes in the production process (adoption of new technologies, introduction of standards, etc.).

Based on such recognized advantages, opportunities for agricultural development have opened up, initiated by the expansion of tourism and additional demand for food, the availability of state and EU support has increased (especially for rural development), and the market for organic production has been affirmed. The potential for strengthening local production and markets, increasing exports of competitive products, with the efficient use of budget support, faster technological development and the inclusion of young labour in agricultural activities is obvious.

The main limitations, and at the same time the challenges of Montenegrin agriculture and its actors, relate to the low level of application of mechanization and new technologies, the unsatisfactory volume of production per unit of the farms (which are mostly small and fragmented), as well as disorganization and a lack of strong links between all the actors in the production chain. The level of quality standards (hygienic and environmental) needs to be further improved, as well as the infrastructure in some rural areas. The development of agriculture is negatively affected by the unfavourable age and social structure in rural areas, weak promotion and marketing of products, the lack of adequate storage capacities, insufficient connection with the tourist sector, an insufficient level of application of good agricultural practice and the seasonal character of agricultural production.

However, with relevant and indisputable advantages, despite the still significant limitations, Montenegrin agriculture has many opportunities for **further dynamic development**. In the previous period, this was primarily related to increased demand, due to economic growth and increased revenues, as well as increased sales through the growing tourist sector. The local population shows a preference for domestic products, and the growth of living standards should increase the demand for protected²⁰⁰, quality and organic products.

200 Product names registered as “**protected designation of origin**” (PDO) are those that have the strongest links to the place in which they are made. Protected geographical indication (PGI) **emphasizes the relationship between the specific geographical region and the name of the product, where a particular quality, reputation or other characteristic is essentially attributable to its geographical origin. Traditional speciality guaranteed** (TSG) highlights the traditional aspects such as the way a product is made or its composition, without being linked to a specific geographical area. Registering the name of a product as a TSG protects it against falsification and misuse (https://ec.europa.eu/info/food-farming-fisheries/food-safety-and-quality/certification/quality-labels/quality-schemes-explained_en). Quality schemes of agricultural and food products are the following: protected designation of origin (PDO), protected geographical indication (PGI), traditional specialty guaranteed (TSG), higher quality, “from the farm” and “mountain product”. The competent authority for the quality policy of food and agriculture products is Ministry of Agriculture and Rural Development, Quality Policy Department (Law on Agricultural and Food Product Quality Schemes, OGM No. 22/17).

The uniqueness of the Montenegrin tradition offers a handful of possibilities for protecting products with designations of origin (indications of geographical origin)²⁰¹.

The strategy, **as general development goals** for the period 2015–2020, recognized the following:²⁰²

- Encouraging sustainable, high-quality production, through the development of a competitive and innovative agricultural food sector, which is able to withstand the pressure of competition in the domestic and EU markets and to meet EU standards and market requirements;
- Achieving sustainable management of natural resources and mitigating the effects of climate change through forest and water resource management, and introducing agricultural production that protects the environment and mitigates the impact on the climate;
- Achieving a balanced territorial development of rural areas by encouraging the diversification of economic activities, job creation and social inclusion and improving living conditions in rural areas.

Also, the strategy has brought to the fore the **problems of climate change and air quality**, recognizing some of the activities in agriculture that have a specific impact on air emissions. Thus, it was emphasized that activities to reduce ammonia emissions from agricultural production include:

- Implementation of good agricultural practice;
- Use of modern fertilization techniques;
- Modern storage of fertilizers;
- Introduction of special conditions for housing and feeding livestock;
- Supervision of the application of organic and mineral fertilizers, as well as the application of pesticides;
- Encouraging the use of organic fertilizers and biological plant protection products.

In addition to the above, the strategy has placed a special focus on quality policy and organic production, with organic production being recognized as one of the development opportunities for Montenegrin agriculture.

201 **Indications of geographical origin** shall be the appellation/names of origin and geographical indication. **Designation of origin** is the geographical name of a country, region or locality used to designate products originating in that country, region or locality, which are of a high quality and have special characteristics exclusively or substantially conditioned by the geographical environment, which includes natural and human factors and whose production, processing and preparation take place, as a whole, in a specific limited area. The name of origin may exceptionally indicate a product when the raw material for its production originates from an area that is wider or different from the processing area, provided that: 1) the area of production of raw materials is limited; 2) that there are special conditions for the production of raw materials; and 3) that there is a control system that will ensure the fulfilment of special conditions for the production of raw materials. **Geographical indication** shall be the indication that identifies certain goods as goods originating from the territory of a specific country, region or a locality within such territory, where the specific quality, reputation or other characteristics of the goods can be essentially attributed to their geographical origin (Law on Indication of Geographical Origin, OGM Nos. 18/11 and 40/11).

202 "Strategy for the Development of Agriculture and Rural Areas", MARD, June 2015.

The strategic framework in this sector, in addition to the aforementioned strategy and the IPARD II development programme, also includes the following development documents²⁰³:

- Action Plan for Alignment with the *Acquis Communautaire* 2015–2020, Chapter 11: Agriculture and Rural Development, July 2015;
- Innovated strategy of Montenegro for transposition and implementation of the *Acquis Communautaire* for Chapter 12: Food Safety, Veterinary and Phytosanitary Policy, with a general action plan and a special action plan for the control and eradication of classical swine fever 2020–2025²⁰⁴;
- Fisheries Strategy of Montenegro 2015–2020 (the revision will be done in 2021);
- Action Plan for the Transposition, Implementation and Enforcement of the *Acquis* (C13);
- National Forestry Strategy with Forest and Forestry Development Plan 2014–2023²⁰⁵ and revision of the Forest and Forestry Development Strategy (11 October 2018)²⁰⁶;
- Agricultural budgets for reference years;
- Montenegro's EU Accession Programme 2020–2022;
- Report on the implementation of the National Climate Change Strategy (NCCS) 2030 and its Action Plan, December 2018;
- Economic Reform Programme 2020–2022.

Consulted sources:

- Ministry of Agriculture and Rural Development, Report for 2019;
- Study **“Identification of agricultural products with the highest added value on the territory of Montenegro and analysis of their “value chains” with a special focus on the environment”**, (January 2020, E Co. Ltd., Great Britain, with the support of UNDP);
- other reference sources listed in the sector analysis.

203 In PAMNE 2020–2022, in the coming period it will be necessary to develop an action plan for the establishment of the Integrated Administrative and Control System (IACS) and the Paying Agency.

204 As well as: the National Programme for the Improvement of Facilities for Products of Animal Origin and Facilities for By-Products of Animal Origin 2018–2026; a national raw milk quality improvement programme with a plan for dealing with non-compliant raw milk; a management plan for animal by-products not intended for human consumption, with action plan; and in 2021 it is necessary to adopt the National Plan for the Sustainable Use of Plant Protection Products (PPCG 2020–2022).

205 Defines goals related to forests as an ecosystem and natural resource and to the economic sector of forestry and wood industry.

206 <http://www.gov.me/ResourceManager/FileDownload.aspx?rId=333609&rType=2>.

1.2. Legislative framework and alignment with the Common Agricultural Policy of the EU

The realization of development goals and the implementation of **agrarian policy** impose the need to continue reforms in the legislative area, through further harmonization of national legislation with the EU legal framework, which will be realized through amendments to the existing laws and bylaws. In order to implement the agrarian policy efficiently and in accordance with EU principles, and especially the rural development policy as its most demanding component, a harmonized system of implementation, control and monitoring will be gradually established.

Chapter 11: Agriculture and Rural Development includes a large number of binding rules, many of which are directly applicable. Their proper implementation by an efficient administration is essential for the functioning of the Common Agricultural Policy (CAP).

The CAP is divided into two pillars: direct payments and market measures; and rural development. Various support measures that directly or indirectly support farmers' incomes form the basis of the first pillar. Rural development policy aims to improve the quality of life from an economic and social point of view by supporting various economic activities in rural areas. The measures of the first pillar are fully financed from the joint EU budget, while the principle of co-financing from the state budget is applied for the second pillar. One of the main characteristics of the CAP is the financing over a 7-year period, with precisely determined amounts of subsidies for potential beneficiaries. The Member State must be able to apply European legislation to direct payment schemes and to apply the provisions of the common market organization, as well as to implement rural development measures.

Chapter 11 is divided into the following subchapters: Direct payments; Common market organization; State aid; Rural development; Quality policy; and Organic production. From the day of EU accession, Montenegro will implement the Common Agricultural Policy, which implies the establishment of an administrative and institutional framework for its implementation. Proper implementation of the Common Agricultural Policy requires Montenegro to strengthen its existing administrative structures and establish new appropriate ones, such as: the Paying Agency, and to establish certain systems such as: an Integrated Management and Control System; a Farm Accounting Data Network (FADN); and the like.

Chapter 12: The European approach in the field of food safety, veterinary and phytosanitary control implies the application of the "farm to fork" integral principle, which covers all segments of the food chain: primary production; processing; storage; transport; and trade. The *Acquis* for this chapter consists of three complementary parts:

- A. Food safety includes: Rules for the production and placing on the market of food, feed and animal by-products (hygiene rules, specific rules for products of animal origin, declaration and advertising, rules for additives, enzymes, supplements and colours, and food contact materials); rules for official controls; and mechanisms for ensuring food safety, with strict rules for food of animal origin.
- B. Veterinary policy contains: Rules for internal trade in animals and animal products; control and health requirements for the importing of animals, products of animal origin and by-products; the identification and registration of animals and monitoring of their movements; the control and eradication of animal diseases and zoonosis; trade in live animals, seeds, stem cells and embryos; control of residues and other substances; zootechnics; and animal welfare requirements.
- C. Phytosanitary policy contains: Rules for the control of harmful organisms of plants, plant products and objects under control; rules for plant protection products; quality and placing on the market of seed and planting material; and protection of new plant varieties.

Also, this chapter contains rules for genetically modified organisms.

The institutions dealing with the issue of food safety, veterinary and phytosanitary supervision in Montenegro are the Ministry of Agriculture and Rural Development and the Directorate for Food Safety, Veterinary and Phytosanitary Affairs.

In investing **in food processing plants and achieving EU food safety standards**, Montenegro has fulfilled the recommendations given by the European Commission for this area (2014: 3 facilities; now: 61 facilities). Currently, Montenegro has 14 export plants approved by the EC and they are: two slaughterhouses, three meat processing plants, three egg production facilities, three fisheries facilities and four facilities for the exporting of animal by-products (leather and wool). Obtaining export numbers will contribute to the growth of exports of agricultural and food products.²⁰⁷

Starting from the fact that in these areas the European Union sets strict conditions that must be met on the way to accession, it is important, among other things, to meet the following assumptions: adopt appropriate regulations (laws and bylaws); ensure the adoption of prescribed standards by animal keepers, and plant and food business entities; employ professional staff; provide an adequate budget, necessary technical equipment and means for work; laboratories; inspections; and adequate administrative capacities.

By aligning legislation with the *Acquis*, all products on the market will have to meet the same requirements. This will raise the general level of food safety, as well as the trust of citizens in the products they buy.

Chapter 13: Fisheries. Fisheries are an important industry and, historically, a long-standing activity in EU countries. Rational exploitation of renewable fish resources, issues of regulation of the market of fishery and aquaculture products, structural policy, supervision and control and international cooperation in fisheries are regulated by the Common Fisheries Policy of the EU. The establishment of the Common Fisheries Policy also defines its objectives: increasing productivity; improving the living standards of fisheries employees; stabilizing the market; more efficient supply; and provision of food stocks at affordable prices. Negotiations on Chapter 13 are divided into six subchapters: Resources and fleet management; Inspection and control; Structural measures; State aid; Market measures; and International agreements. The institutions in charge of the fisheries sector are the following: the Ministry of Agriculture and Rural Development – Directorate of Fisheries, Institute of Marine Biology and the following laboratories: the Specialist Veterinary Laboratory; Centre for Eco-Toxicological Testing; and the Institute of Public Health of Montenegro.

207 Economic Reform Programme 2019–2021, Government of Montenegro, Podgorica, January 2019.

Legislative framework:

AGRICULTURE AND RURAL DEVELOPMENT:

- Law on Agriculture and Rural Development ("Official Gazette of Montenegro" Nos. 56/09, 18/11, 40/11, 34/14, 1/15, 30/17 and 51/17).
- Law on Wine ("Official Gazette of Montenegro" No. 41/16).
- Law on Ratification of the Sectoral Agreement between the Government of Montenegro and the European Commission establishing the rules for management and implementation of the European Union's financial assistance to Montenegro within the instruments of pre-accession support for the policy area "Agriculture and Rural Development" (IPARD) ("Official Gazette of Montenegro – International Agreements" No. 2/16).
- Law on Olive Growing and Olive Oil ("Official Gazette of Montenegro" Nos. 45/14 and 39/16).
- Law on Regulation of the Agricultural Products Market ("Official Gazette of Montenegro" No. 51/17).
- Law on Strong Alcoholic Beverages ("Official Gazette of Montenegro" Nos. 83/09 and 53/16)
- Law on Origin Designations, Geographical Designations and Designations of Guaranteed Traditional Specialties of Agricultural and Food Products ("Official Gazette of Montenegro" No. 18/11).
- Law on Quality Schemes of Agricultural and Food Products ("Official Gazette of Montenegro" No. 22/17).
- Law on Organic Production ("Official Gazette of Montenegro" No. 56/13).
- Law on Forests ("Official Gazette of Montenegro" Nos. 74/10, 40/11 and 47/15).
- FOOD SAFETY: Law on Food Safety ("Official Gazette of Montenegro" No. 57/15).
- VETERINARY POLICY: Law on Veterinary Medicine ("Official Gazette of Montenegro" Nos. 30/12, 48/15, 52/16 and 43/18); Law on Protection of Animal Welfare ("Official Gazette of Montenegro" Nos. 14/08 and 47/15); Law on the Identification and Registration of Animals ("Official Gazette of Montenegro" Nos. 48/07 and 48/15); Law on Animal Husbandry ("Official Gazette of Montenegro" Nos. 72/10 and 48/15).
- PHYTOSANITARY POLICY: Law on Plant Health Protection ("Official Gazette of the Republic of Montenegro" No. 28/06, "Official Gazette of Montenegro" Nos. 28/11 and 48/15); Law on Plant Protection Products ("Official Gazette of Montenegro, Nos. 51/08 and 18/14); Law on Seed Material of Agricultural Plants ("Official Gazette of the Republic of Montenegro" No. 28/06 and "Official Gazette of Montenegro" Nos. 61/11 and 48/15); Law on Planting Material ("Official Gazette of the Republic of Montenegro" Nos. 28/06; "Official Gazette of Montenegro" Nos. 61/11 and 48/15); Law on Reproductive Material of Forest Trees ("Official Gazette of the Republic of Montenegro" Nos. 37/07 and 57/15); Law on Plant Variety Protection ("Official Gazette of the Republic of Montenegro" No. 48/07, "Official Gazette of Montenegro" Nos. 48/08 and 40/11).
- GMO: Law on Genetically Modified Organisms ("Official Gazette of Montenegro" No. 22/08).
- FISHERIES: Law on Marine Fisheries and Mariculture ("Official Gazette of Montenegro" Nos. 56/09 and 47/15); Draft Law on Structural Measures and State Aid in Fisheries and Aquaculture (December 2019).

1.3. Review "Development Directions of Montenegro 2018–2021"

The current Development Directions 2018–2021 also defines **increasing the quality of life in the long run** as a strategic goal of the country's development. And its realization is based on four identified priority sectors of development: tourism; energy; agriculture and rural development; and the processing industry.

Perceived from the angle of agriculture and rural development, it was emphasized that achievement of the established strategic development goal can be achieved²⁰⁸:

²⁰⁸ "Development Directions of Montenegro 2018–2021", Ministry of Finance, December 2017.

- through strengthening the competitiveness and sustainability of the agricultural sector, investment in primary agricultural production, processing and marketing of agricultural and fishery products;
- through sustainable development of rural areas, improvement and development of rural infrastructure, as well as diversification of economic activities in rural areas;
- through the restoration, preservation and strengthening of ecosystems, as well as implementation of agricultural-ecological measures; and
- through the transfer of knowledge and innovation in agriculture, investment in education, research and analytical work.

The level of realization of previously determined goals of agricultural development and development of rural areas can be monitored through the following indicators²⁰⁹:

- Gradual adjustment by Montenegrin farmers to the European model of support;
- Improving the competitiveness of agricultural holdings and increasing the added value of agricultural products by increasing efficiency in processing;
- Improving living conditions and the quality of life in rural areas;
- Stopping depopulation;
- Conservation and rational use of natural resources;
- Conservation of biodiversity;
- Sustainable management of agricultural land;
- Knowledge-based agricultural development;
- Strengthening institutional support for the development of sustainable agriculture.

2. Overview of basic indicators

The share of agriculture in gross value added in 2018 is 8.2%²¹⁰ and the share of agriculture in GDP is 6.7%. Gross value added in current prices in the sectors of agriculture, forestry and fisheries in 2018 amounted to €313.93 million, which is an increase of 6.3% compared to 2017.²¹¹

The main goal of Montenegro's agricultural policy is to strengthen the competitiveness of agricultural production and to improve living conditions in rural areas. The main obstacles to strengthening the competitiveness of the food production sector in Montenegro are: low productivity per unit area; an unfavourable age structure in rural areas; the lack of organization of producers into producer organizations; and underdeveloped rural infrastructure.

Regarding **foreign trade in the agricultural sector**, it can be concluded that the coverage of imports by exports is still low. Montenegro has been importing the same groups of products for years, among which meat, cereal-based products, various food products, milk, dairy products stand out, among others. On the other hand, the product that has been mostly exported from Montenegro for many years is wine, and in the last few years also meat products.

²⁰⁹ Ibid.

²¹⁰ Constant prices.

²¹¹ MONSTAT, Directorate of Statistics of Montenegro, National Accounts (www.monstat.org).

Montenegro has **significant land resources**, but with the restriction that these are fragmented and distributed across a large number of family farms, although the northern part of Montenegro has an advantage compared to the coast in terms of the use of larger areas. The highest-quality land is found in river valleys, karst fields and plateaus. The problems that Montenegro has to intensively work on, above all, are careless treatment of land, in the way that they are, in an unplanned manner, being turned into populated areas or even becoming sites for various facilities. Furthermore, challenges are highlighted, related to soil degradation through the exploitation of mineral raw materials (such as gravel), increasing the percentage of toxicants in the soil due to improper waste disposal, the presence of erosion processes, etc.

Preliminary data shows that the total **agricultural area** in 2016 amounted to 334,048.8 ha and had increased by 8% compared to 2010, which represents 24.2% of the territory of Montenegro. The total used agricultural area in 2018 was 15.8% higher compared to 2010 and amounts to 256,807 ha²¹². At the same time, due to the depopulation of rural areas, forests are expanding, and pastures and meadows are being turned into forest land.

According to preliminary data obtained in the survey on the **structure of agricultural holdings**, as of 1 November 2016, there were 43,791 agricultural holdings²¹³, of which 43 were agricultural enterprises or business entities. Out of a total of 43,791 agricultural holdings in Montenegro, 31,260 agricultural holdings raise livestock and/or poultry (71.4%). On average, an **agricultural holding** covers 5.9 ha of used agricultural land, and out of the total number of agricultural holdings, most agricultural holdings cover between 0.1 and 0.5 ha. When observing the structure of used agricultural land (backyards, arable land, orchards, vineyards, nurseries and meadows and pastures), the share of meadows and pastures in the total used agricultural land in 2018 was 94.3%, while all the other categories amounted to a total of 5.7%. Agricultural land is very fragmented. The number of farms keeping cattle in 2016 averaged 4.1 head, which is an increase of 24.2% compared to 2010, when the average was 3.3 head. The largest number of farms that keep cattle have between 1 and 2 head of cattle – a total of 11,684 agricultural farms. The average number of sheep per agricultural holding in 2016 was 34.8 in relation to the total number of farms engaged in sheep breeding, while the average number of goats (in agricultural holdings engaged in goat breeding) in 2016 was 9.3 head. The average number of pigs per agricultural holding in 2016 was 4.2, and poultry 49 in relation to the total number of farms engaged in their breeding. The lowest value noted is the average number of horses and donkeys – 1.4 per farm that is engaged in their breeding.²¹⁴

The total number of **employed persons in Montenegro**²¹⁵ surveyed in the Survey on the Structure of Agricultural Holdings in 2016 was **99,236**. In relation to the number of employed persons included in the 2010 Census of Agriculture, it is 0.3% higher²¹⁶. As in 2010, the age structure is characterized by a high share of older employees on the farm. However, in 2016, there was an increase in the share of the labour force aged below 24 years. Namely, the total number of employed persons in 2016 was 7,381, while in 2010 it was 6,732, which is an increase of 9.6%. In 2016, the share of men as employed persons in agriculture was 57.7%, and

212 MONSTAT, Agriculture and Fisheries, Production Statistics, Plant Production, Data on Agricultural Land by Category of Use, <https://www.monstat.org/cg/page.php?id=1354&pageid=62>.

213 "Research on the Structure of Agricultural Holdings", MONSTAT, 2016.

214 Ibid.

215 According to the Labour Force Survey for 2019, there are 17,400 employees in agriculture, or 7.1% of the total number of employees in Montenegro (248,000). Official data on registered employment in 2019 shows that the average employment in agriculture and forestry was only 1,997 or 1% of the total registered employment (203,545); however, individual producers are not included in this number. In other words, the methodology used to obtain this data is not adapted to the agricultural sector.

216 Structural Statistics, Research on the Structure of Agriculture Holdings, <https://www.monstat.org/userfiles/file/fss/Saopstenje%20FSS.pdf>. According to the 2010 Agricultural Census, out of a total of 620,029 inhabitants of Montenegro, 48,870 agricultural farms are engaged in agriculture, employing 98,341 people.

the share of women was 42.3%. With both men and women, the highest proportion of people employed in agriculture are over 65 years of age.

More than 60% of the territory of Montenegro is covered in forests, which makes it one of the three most forested countries in Europe, just behind Finland (86%) and Sweden (67%). The forest cover is far above the European (46%) and world (30%) level of forest cover²¹⁷. The high percentage of forest cover is a great advantage when it comes to protecting and improving the environment, and it is also positive for adapting ecosystems to future changes. The orographic characteristics and refugial character of many habitats have made the **abundance and diversity of the living world** (flora and fauna) become qualities specific to Montenegro. Floristic diversity makes up 3,250 plant species and the index (S/A-species/area 4) of 0.837 makes Montenegro one of the most important **biodiversity** centres in Europe²¹⁸.

According to data from the Spatial Plan of Montenegro, 67% of forests are state-owned²¹⁹. There are, however, indicators that show that the ownership relationship has changed in favour of private forest owners, due to cadastre updates, restitution, etc., and that **49% of forests and forest land are now privately owned**²²⁰.

Factors that threaten forest ecosystems are mainly fires, abiotic factors (droughts, floods, frost, snow, strong winds, etc.) and pests and diseases. Unsustainable **forest management** practices have resulted in the deterioration of forest ecosystems. It has been observed that forests have become more susceptible to climate change, air pollution and fires, as well as exposure to pests and diseases. Undoubtedly, the most damage in forests occurs as a consequence of fires and, after that, the damages that occur as a consequence of non-realization of planning documents²²¹.

Given the environmental and economic damage, **fires** pose the greatest threat to forest ecosystems in Montenegro. The number of fires varies from year to year²²². The increasing prevalence of forest fires causes damage with the loss of wood and biomass. It also reduces the resilience of forests and their biological diversity, as well as the destruction of authentic landscapes and soil structure, all of which have contributed to erosion and serious land degradation²²³.

According to available detailed information from the **national forest monitoring** for Montenegro, which

217 Sixty-eight species of trees (57 deciduous and 11 evergreen) were registered in the **National Forest Inventory**. Woody species form pure and mixed forests and cover 59.9% (832,900 ha), while forest land covers an additional 135,800 ha (9.8%), together representing 69.7% of the territory of Montenegro (Third National Climate Change Report, Working Document, MSDT, May 2020).

218 **High forests cover** 61%, shrubs 12%, and forest land 14% of the total forest area. In the **national parks** (Lake Skadar, Lovćen, Biogradska gora, Prokletije and Durmitor), forests (37,125 ha) and forest land (2,825 ha) cover 40.5% of the area. Compared to the total area under forests in Montenegro, it is 53.7% and 14.6% in the Emerald zone. The estimated **biomass** in the national parks of Montenegro is 10,717,149 m³, and the forest ecosystem permanently binds 2,979,966 tons of carbon (Ibid).

219 Forests and forest land are a resource of general interest. In accordance with the Law on Forests ("OGM" Nos. 74/10, 40/11 and 47/15), a forest or forest land in state ownership may be alienated only on the basis of a decision by the government, if: it is located in an area which is envisaged by the spatial plan for a change of purpose due to the construction of facilities of public interest; it is a question of replacing the plots of forests or forest land in state ownership with private ones in order to unite forest or forest land in state ownership, provided that the value of state forests or forest land is not reduced.

220 Currently, 124,964.24 ha, or 9.05% of the territory of Montenegro is **under protection**. The largest areas under protection are national parks: Durmitor, Lake Skadar, Lovćen, Biogradska gora and Prokletije, which makes a total of 101,733 ha (7.77%). The next most important protected areas are natural monuments, with a total area of 13,538 ha (0.98%), and nature reserves of 650 ha (0.047%) (Third National Climate Change Report, Working Paper, MSDT, May 2020, p. 10).

221 **The Forest Fire Protection Plan** for 2019 has been developed for each regional unit separately and with a detailed cartographic presentation by endangerment categories. Plans and maps in electronic form were submitted to the Ministry of Internal Affairs – Sector for Emergency Situations. In times of increased fire danger, the Forest Administration establishes a permanent on-call service (24/7) and receives information on the time of fire, location, fire intensity, area, fire spread, as well as the possibility of localization of the fire (Report on forest health assessment and sustainability of forest management for 2019, Forest Administration, 16 April 2020).

222 The share of forest area affected by **fires** in Montenegro in 2019 is 0.16%. For Mediterranean countries, which include Montenegro, the percentage of burned area is considered to be from 1% to 1.5% of the total area under forests within normal limits (Ibid).

223 Second Biennial Supplementary Report (April 2019), p. 20.

is conducted at 49 points and covers the entire territory of Montenegro, the average health status of forests is at a satisfactory level and the long-term stability and resilience of forests is not endangered. At most locations, the registered degree of defoliation is within the expected limits (damage estimate up to 25%). Some of these phenomena are **direct consequences of climate change**, i.e. increases in air temperature, changes in precipitation, more frequent droughts, storms and generally extreme weather conditions.

Climate change, as one of the main drivers of ecological change in forests, creates the need to revise the existing forest management methods and re-evaluate the planting and cultivation methods used²²⁴.

In accordance with the **Forest Health Monitoring Programme in Europe** (ICP Forests Programme), during 2019 data on the vitality and health status of forests was collected at all 49 bio-indication points, the data was processed, packed into the required files and entered into a technical database at the ICP Centre in Hamburg, then the data was entered into an online database on the ICP server. This data has unequivocally shown that the health condition of forests in Montenegro is still preserved.²²⁵

Given that Montenegro has been declared an ecological state and is the top European country in terms of forest cover, the **natural wealth of our forests is the best way to fight climate change** and forests are our best line of defence against a number of extreme events. Forests create a microclimate, maintaining the stability of watercourses and preventing the occurrence of floods, landslides, freezing and the formation of strong winds, so by protecting forests, we protect our health and our future.

Montenegro is also very rich in **water resources**, so according to statistical data, it can be said that water is the largest natural resource in Montenegro. Also, the water quality is good for supplying the population with drinking water. The average annual rainfall in Montenegro is very heterogeneous, with an extremely pronounced rainy and less rainy region. The average annual rainfall ranges from 800 mm, in the far north, to about 5,000 mm in the extreme south-west²²⁶. However, despite such good water conditions, Montenegro, and thus its agriculture, is facing serious problems. The discharge of wastewater from various sources is one of the largest. In addition, agricultural activities in river basins are a source of pollution by organic matter entering river flows.

3. Agricultural budget funds

Support for the development and implementation of agricultural policy is realized through the annual agricultural budget. The agricultural budget contains a number of measures and incentive schemes harmonized with the priorities of the agrarian policy within the national strategy and work programme of the Ministry of Agriculture and Rural Development (MARD). In order to facilitate the monitoring of indicators for the analysis of agricultural policy, the budget is observed by the following types of policies and groups of measures:

- Market price policy measures;
- Rural development measures;
- Support for general services, services and social transfers in agriculture;
- Fishery development measures.

The structure of the agricultural budget for the past four years (2017–2020) is shown in the next table²²⁷.

224 Third National Report on Climate Change, working document, MSDT, May 2020, p. 11.

225 Report on the Assessment of the Health Status of Forests and the Sustainability of Forest Management for 2019, Forest Administration, 16 April 2020, p. 14.

226 National Flood Protection and Rescue Plan, Government of Montenegro, December 2019.

227 Ministry of Agriculture and Rural Development, <http://www.minpolj.gov.me/organizacija/agrobudzet/>.

Table 23. Structure of the agricultural budget in the period 2017–2020

	Description of activities	2017	2018	2019	2020
A	Agriculture				
1.	Market pricing policy measures	5,721,000	6,604,000	7,977,000	9,270,000
2.	Rural development measures	18,667,000	23,518,300	32,670,000	40,023,000
3.	Support for general services in agriculture	1,214,000	2,907,500	3,747,500	1,469,500
4.	Social transfers to the rural population	3,300,000	3,300,000	3,370,000	3,200,000
5.	Technical and administrative support	195,000	193,000	260,000	300,000
B	Fisheries	443,000	1,043,000	1,553,000	2,243,000
C	Operational programme	1,600,092	2,390,000	2,790,000	4,217,000
	TOTAL	31,140,092	39,955,800	52,367,500	60,722,500

As can be seen from the presented table, the largest allocations from the agricultural budget are foreseen for rural development measures, followed by market price policy measures. The annual agricultural budget in 2020 was almost double that in 2017 – a growth of about 95%.

Funds for the implementation of the agricultural budget are provided from three sources: the Budget of Montenegro; donations; and credit funds. The structure of the financing sources of the agricultural budget for the period 2017–2020 is shown in the table.

Table 24. Structure of the financing sources of the agricultural budget in the period 2017–2020

	Financing sources	2017	2018	2019	2020
1.	Budget of Montenegro	16,900,092	18,787,500	22,317,500	24,404,500
2.	Donations	11,100,000	16,603,300	22,950,000	27,326,000
3.	Credit funds	3,140,000	4,565,000	7,100,000	8,992,000
	TOTAL	31,140,092	39,955,800	52,367,500	60,722,500

In 2017 and 2018, most of the funds were provided directly from the Budget of Montenegro, while in the last two years, the most significant contribution to the agricultural budget was provided from donations. The share of budget funds has increased by about 50% in the last four years, while the share of donations has more than doubled. Grants were provided under the IPARD II programme, the IFAD Project and support from EU/IPA projects. The structure of donations in the previous period (2017–2020) is shown in the following table.

Table 25. Structure of donations in the agricultural budget in the period 2017–2020

	Structure of donations	2017	2018	2019	2020
1.	IPARD II Programme	5,000,000	10,000,000	20,000,000	26,000,000
2.	Project IFAD		703,300	520,000	816,000
3.	EU/IPA Project	6,100,000	5,900,000	2,430,000	510,000
	TOTAL	11,100,000	16,603,300	22,950,000	27,326,000

From the presented data, it can be concluded that the most significant donations in support of the agricultural budget were realized on the basis of the IPARD II programme.

According to the ERP 2020–2022 (January 2020, before the COVID-19 pandemic), projected real growth in the agricultural sector in the period 2020–2021 was predicted to be at an average of 3%. Such growth is projected on the basis of increased investments in agriculture and significant credit support to this sector in the period 2012–2022. Investments in the agricultural sector are expected to increase the competitiveness of producers and reduce food imports by substitution and/or increase exports.

The measure of priority reform for the agricultural sector in the Economic Reform Programme 2020–2022 is **“Support to investments in the food production sector in order to increase competitiveness”** (recognized in IPARD II and the S3 strategy).

The Programme for the Development of Agriculture and Rural Areas of Montenegro within IPARD II 2014–2020 (IPARD II programme) is one of the preconditions for the use of European pre-accession funds through IPA II for the area of agricultural and rural development policy. Through the implementation of the IPARD II programme, a total of €51,740,654 in grants is available to Montenegrin farmers, of which EU funds amount to €39,000,000 and national co-financing amounts to €12,740,654²²⁸. Along with the contributions of the beneficiaries, the implementation of the IPARD II programme will invest around €91.5 million in Montenegrin agriculture.

The goal of the IPARD II programme is to restructure and modernize the agricultural and processing sector, in order to create competitive agricultural holdings and a processing sector which will be ready to join the EU and use EU funds. This programme contains seven support measures²²⁹:

Measure 1: Investments in physical capital of agricultural holdings;

Measure 3: Investments in physical capital related to processing and marketing of agricultural and fishery products;

Measure 7: Diversification of farms and business development;

Measure 9: Technical assistance;

Measure 4: Agri-ecological-climatic and measures of organic production;

Measure 5: Implementation of local development strategies;

Measure 6: Investments in public rural infrastructure.

²²⁸ IPARD II, version 1.2, January 2019, p. 107, Tables 22 and 23.

²²⁹ Ministry of Agriculture and Rural Development, (http://www.ipard.gov.me/IPARD_program).

Table 26. IPARD II 2014–2020: Indicative budget and measures

MEASURE	Public support						Private contribution		Total costs
	Total public support (amount)	% public support in relation to total costs	EU contribution	% EU contribution in public support	National contribution	% nat. contributions in public support	Amount in EUR	% private contribution in relation to total costs	
Indicative budget	A=B+C		B		C		D		F=A+D
Investment in physical capital in agricultural holdings	21,693,333	60%	16,270,000	75%	5,423,333	25%	14,462,222	40%	36,155,555
Investments in physical capital related to the processing and marketing of agricultural and fishery products	23,693,333	50%	17,770,000	75%	5,923,333	25%	23,693,333	50%	47,386,666
Agri-ecological measures	564,706	100%	480,000	85%	84,706	15%	–		564,706
Implementation of local development strategies – LEADER	355,556	100%	320,000	90%	35,556	10%	–		355,556
Investments in rural infrastructure	1,600,000	100%	1,200,000	75%	400,000	25%	–		1,600,000
Farm diversification and business development	2,986,667	65%	2,240,000	75%	746,667	25%	1,608,205	35%	4,594,872
Technical support	847,059	100%	720,000	85%	127,059	15%	–		847,059
TOTAL	51,740,654	57%	39,000,000	75%	12,740,654	25%	39,763,760	43%	91,504,415

In the past period, significant financial resources have been made available to Montenegrin agricultural producers from a project financed by the World Bank and from pre-accession funds for rural development, as well as from the state budget. In 2017, €17 million was invested in strengthening the agricultural sector, of which support from IPA funds amounted to €3.2 million (total investments of €6.3 million), while €11 million was provided by agricultural budget measures, which include direct support measures (subsidies) and measures aimed at supporting investments in rural areas, such as support for new plantations, purchase of livestock and diversification of activities. According to the Economic Reform Programme 2020–2022, in 2018 about €16.7 million was invested in the agricultural sector, of which assistance from IPA funds amounted to €2.6 million (total investment is €4 million), while €14.1 million was allocated through agricultural budgetary

measures and these include direct support measures (subsidies) and measures aimed at supporting investments in rural areas, such as support for the cultivation of new plantations, livestock increase, procurement of equipment and machinery.

By investing **in food processing plants and reaching EU food safety standards**, Montenegro has fulfilled the recommendations given by the European Commission for this area (in 2014 – three facilities; and now: 61 facilities). Currently, Montenegro has 14 export plants approved by the EC and they are: two slaughterhouses, three meat processing plants, three egg-production facilities, three fishery facilities and four facilities for the export of animal by-products (leather and wool). Obtaining export numbers will contribute to the growth of exports of agricultural and food products.²³⁰

3.1. Incentives and support for agri-ecological measures

Agri-ecological measures are an obligation for the state, but not for farmers, who apply them on a voluntary basis. Therefore, it is necessary to motivate producers, in the form of incentives, as well as to make the initial steps, criteria and procedures as simple as possible, with the expectation that over time the criteria and requirements will increase.

The state has recognized the need to support this type of measures through the agricultural budget as support for organic production, preservation of indigenous genetic resources in agriculture and sustainable use of mountain pastures, which directly and indirectly affects environmental protection and biodiversity and ecosystem preservation.

3.1.1. Support measures for organic production

Incentives or support for organic production is provided for producers who produce organic products in accordance with the Law on Organic Production²³¹. The goals of support for organic production are: sustainable management of natural resources; reduction of the negative impacts of agriculture on the environment; preservation of biodiversity; raising the quality of agricultural products; and contribution to the affirmation of Montenegro as an ecological state.

Support is given to producers in plant production per hectare (ha), in livestock production per conditional head of livestock, poultry units, and in beekeeping production by the number of hives, with the obligatory condition of registration in the Register of Entities in Organic Production.

In crop production, the minimum support areas are 0.15 ha for the production of vegetables in protected areas and 0.3 ha for the production of vegetables in the open, as well as 0.5 ha for perennial and field crops. In beekeeping, the minimum criterion is 20 bee colonies. In livestock production, the minimum criteria are 3 head of cows and breeding heifers, 30 sheep, 30 goats or 300 poultry. The amounts of payments according to the types of activities envisaged by these measures are shown in the table.

230 Economic Reform Programme 2019–2021, Government of Montenegro, Podgorica, January 2019.

231 "Official Gazette of Montenegro" No. 56/13.

Table 27. Incentive measures for organic production

Incentive measures – activities	Payment amount
Perennial plants	€400/ha
Field production	€250/ha
Vegetables production	€350/ha
Raising cows and heifers	€100/conditional head
Sheep and goat breeding	€100/conditional head
Poultry farming	€2/individual
Beekeeping	€40/bee colony

€400,000 has been allocated from the Agricultural Budget for this measure for 2020. Funds allocated for financing this measure are provided from the MIDAS 2 project. According to officially available information, €268,579 was spent on this incentive measure in 2019²³².

3.1.2. Measure for the conservation of indigenous genetic resources in agriculture

As stated, Montenegro has a rich and diverse living world – **biodiversity** – on a relatively small area. The genetic fund of plants and animals in agriculture is also extremely rich, which is manifested in a large number of species, varieties and breeds, and especially autochthonous populations of plants and animals that are used for food production. This fact, as well as the obligation to preserve and sustainably use genetic resources, in accordance with international conventions and principles, require appropriate financial support from the budget to stimulate agricultural holdings to maintain genetic resources.

Producers who cultivate indigenous species/varieties/breeds and who agree to cooperate with the institution responsible for genetic resources, in terms of submitting materials and providing the necessary information, are entitled to support.

Support in crop production is given for **perennial crops**:

- cultivation and care of individual (up to 30) very old olive trees, grapevines or orchards of an estimated age over 200 years (for olives, over 1,000 years);
- cultivation and care of individual trees (up to 30) or plantations of other fruit species/varieties, which are endangered by genetic erosion, and for which proof of age has been submitted;
- cultivation of field and vegetable crops on an area of more than 0.3 ha per cultivated species.

In animal husbandry, the support included the breeding of “buša” in cattle breeding, “Zeta žuje”, “sora”, “Piva pramenka” and “ljabe” in sheep breeding and domestic Balkan goats and donkeys.

The amounts of payments, according to the types of activities envisaged by these measures, are shown in the following table.

²³² “Report on the work and situation in the administrative areas of the Ministry of Agriculture and Rural Development and administrative bodies”, MARD, March 2020.

Table 28. Incentive measures for the conservation of indigenous genetic resources

Incentive measures/activities	Payment amount
Perennial crops	€50/tree
Annual crops	€150/ha
Cattle breeding	€80/head
Sheep and goat breeding	€8/head
Breeding of "Zeta žuje"	€7/head
Donkey breeding	€50/head

€40,000 was allocated from the agricultural budget for this measure for 2020, and in 2019, €39,129 was spent on this incentive measure.²³³

3.1.3. Support measure for manure management

The measure financed from the agricultural budget is support for the **construction and/or reconstruction** of facilities (pools) for manure storage or procurement of specialized tanks for manure storage in order to prevent negative effects on the environment. Improper storage of manure in livestock production has a negative impact on the condition of land, water, air and climate, and in order to adequately arrange the economic yard and prevent negative effects on the environment and climate change, it is provided support for the **construction and/or reconstruction of facilities** (pools) for the storage of manure or procurement of specialized **tanks** for manure storage.

The maximum eligible investment is €4,000 with budget support of up to 60% of the value of the eligible investment (up to €2,400), except for young farmers (up to 40 years old at the time of the public call) where the support is up to 70% eligible investment (up to €2,800) and an additional 5% for those applicants pursuing an agricultural activity as their sole or main occupation. €90,000 was allocated from the agricultural budget for this measure for 2020, while €43,694 was spent on this incentive measure in 2019.

By investing **in food processing plants and reaching EU food safety standards**, Montenegro has fulfilled the recommendations given by the European Commission for this area (in 2014: three facilities; now: 61 facilities). Currently, Montenegro has 14 export plants approved by the EC and they are: two slaughterhouses, three meat processing plants, three egg-production facilities, three fisheries facilities and four facilities for the export of animal by-products (leather and wool). Obtaining export numbers will contribute to the growth of exports of agricultural and food products²³⁴.

The realization of development goals and the implementation of **agrarian policy** impose the need to continue reforms in the legislative area, through further harmonization of national legislation with the EU legal framework, which will be realized through amendments to the existing laws and bylaws. In order to implement the agrarian policy efficiently and in accordance with the EU principles, and especially the rural development policy as its most demanding component, a harmonized system of implementation, control and monitoring will be gradually established.

²³³ Report on the work and situation in the administrative areas of the Ministry of Agriculture and Rural Development and administrative bodies for 2019, MARD, March 2020.

²³⁴ Economic Reform Programme 2019–2021, Government of Montenegro, Podgorica, January 2019.

4. Concluding assessments and recommendations for a roadmap for strengthening green business in the agricultural sector

4.1. Credit lines of the Investment and Development Fund of Montenegro

The IDF MNE recognizes a significant number of credit lines supported by the agricultural sector in Montenegro, with the application of several incentive measures, which are presented in the previous chapter. Current credit lines with this priority development sector are:

- **Agriculture and Food Production Support Programme** – the maximum loan amount is up to €3 million, directly or through commercial banks, with an interest rate of 4% and 5%, respectively, with a grace period of 4 years and a repayment period of up to 12 years, with incentives for northern region and less developed municipalities.
- **Agricultural Development Support Programme – IPARD** – the IDF has defined stimulative conditions for a special target group of agricultural producers participating in the IPARD grant scheme programmes of the Ministry of Agriculture, where: the maximum loan amount is equal to the maximum investment amount in accordance with IPARD regulations; there is direct lending; an interest rate of 3%; a grace period of 4 years; and a maximum payback period of up to 12 years.
- **Agricultural Development Support Programme – IPARD-like** – implemented in the period 2018–2019, the programme focused on a special group of agricultural producers and companies participating in the IPARD scheme programme, such as the Ministry of Agriculture and Rural Development. The loans were intended for investments in agricultural farms and the beneficiaries are micro, small and medium-sized enterprises that perform economic activities and that have applied for the IPARD-like project.
- **Agricultural Development Support Programme – Agricultural Budget** – the programme aims to provide support for agricultural producers who use grants from the agricultural budget. The loans are intended primarily for investments in agricultural holdings, all in accordance with the Public Calls of the Ministry of Agriculture and Rural Development of Montenegro. Agricultural producers who have received support from the Ministry of Agriculture from the agricultural budget, as well as micro, small and medium-sized enterprises in the field of agriculture, can be beneficiaries of these loans. The maximum loan amount is €10,000, there is direct lending, an interest rate of 2.5%, a grace period of up to 4 years, and the maximum loan repayment period of 12 years. The term of using the loan is in accordance with the prescribed agreement between the beneficiary and the Ministry of Agriculture and Rural Development. Incentives for the northern region and less developed municipalities are also included.
- **Agricultural Development Support Programme – Purchase of Agricultural Products** – the programme aims to encourage hotels, commercial enterprises and restaurants to purchase products from domestic agricultural producers, which is the main purpose of these loans. The users of loans under this credit line are specifically trade companies, hotels, catering facilities and other companies that buy agricultural products from domestic producers. The maximum loan amount is €1 million, with an interest rate of 2.5%, a grace period of 3 months, a maximum repayment period of up to 12 months; with incentives for the northern region and less developed municipalities.

New credit lines for liquidity caused by the COVID-19 pandemic:

1. Special programme of support for agriculture and fisheries (May 2020) in order to mitigate the consequences of the pandemic caused by coronavirus – the new programme of support for agriculture and fisheries is implemented by the Investment and Development Fund in cooperation with the Ministry of Agriculture and Rural Development. The maximum loan amount is €20,000, the minimum amount is €500, with an interest rate of 1.5%, a repayment period of 12–24 months, including a grace period of up to 12 months. This new credit line, of a total amount of €10 million, is aimed at providing the necessary funds for the liquidity of individual agricultural producers and micro-enterprises in the field of agriculture and fisheries (funds intended mainly for working capital financing), in order to facilitate this period and overcome possible problems in the post-pandemic period of economic recovery of the Montenegrin economy.

The Ministry of Agriculture is obliged to subsidize interest during the grace period, as well as to provide logistical support, verification of applications and documentation and information related to individual applications in order to more efficiently implement applications, so that producers receive credit funds as soon as possible.

The IDF will continue the policy of benefits for the agricultural sector in the provision of funds, where guarantees can be: subsidies, premiums and grants provided by the Ministry of Agriculture from the national budget – in other words, as an instrument of loan security, so-called soft instruments. For the first time in Montenegro, a new instrument is being introduced – the Guarantee Scheme, which is being implemented in cooperation with the European Investment Fund, which enables for farmers easier access to finance²³⁵.

2. New credit line for liquidity growth in priority sectors (April 2020) – the funds of this credit line are intended for solving liquidity problems in priority sectors. The funds can be used for the purchase of products, semi-finished products, raw materials, payment of rent as well as for the payment of wages. The credit beneficiaries can be existing entrepreneurs, micro, small, medium-sized and large companies, which have the direct consequence of a negative impact on liquidity from the pandemic, and primarily which ensure orderliness in the supply of medicines, medical equipment, food and hygiene products. Also, priority will be given to those entities that, due to the overall situation, are not able to pay salaries (small caterers, craftsmen, services, shops, etc.). Priority sectors: medicines and medical equipment and ambulances, tourism and catering, transport, services, and food production and processing. The maximum loan amount is €3 million, with an interest rate of 1.5% (if the funds are from non-EIB sources – the interest rate is 2%), a grace period of 2 years and a repayment period of up to 8 years, including the grace period.

Recommendation: include climate and energy goals in the investment project, expand the financial analysis of investment justification with environmental and social impact analysis, and introduce incentives for such defined green investments (grant schemes, incentive interest rates, reduction of loan processing costs).

4.2. Further strengthening of the agricultural budget with higher allocations for agri-ecological measures

- **Measures to support organic production** – consists of reducing the amount of nitrogen in fertilizers used on the land and improving manure application techniques to reduce ammonia emissions, which in turn will lead to a reduction of indirect N₂O emissions from cultivated land; reducing the amount of nitrogen fertilizers used on the land.
- **Measures for the conservation of indigenous genetic resources in agriculture** (link with biodiversity).

²³⁵ <https://www.irfcg.me/me/naslovna/14-sample-data-articles/602-predstavljjen-novi-program-podrske-poljoprivredi-i-ribarstvu-ra-di-ublazavanja-posljedica-od-pandemije-izazavane-korona-virusom>.

- **Manure management support measures** – consists of switching to other manure management systems on livestock and pig farms with reduced N₂O emissions compared to those currently in use; techniques for reducing ammonia emissions when using manure for fertilization.
- **Measures for the sustainable use of mountain pastures**, as one of the main measures that encourage the maintenance of biodiversity in mountain pastures, as well as preventing the conversion of pastures into forests; this measure is also a contribution to fire prevention.

Recognized agricultural products with the highest added value in the territory of Montenegro, and conducted analysis of their value chains with a special focus on the environment²³⁶, can be a guide for additional incentive measures within the agricultural budget.

4.3. Biodiversity

It is necessary to **raise the level of public investment in biodiversity protection**, because investing in natural capital is economically justified (for every euro of public finances invested in the system of protected areas, a return of €29 can be expected over the next 25 years)²³⁷. There is an extremely low level of public funding in the field of nature protection and biodiversity, insufficient to effectively manage the network of protected areas (environmental monitoring programme). The net benefits of public investment in protected areas are significant. The economic potential of protected areas in Montenegro is large and untapped. Significant work is needed to improve the understanding of the need for protection and investment in natural capital among decision makers in order to raise the level of priorities in addressing the issue of biodiversity and financing in the coming period. The first significant step in this direction is the inclusion of economic assessments of the value of biodiversity and protected areas. It is possible to include/develop some innovative financing mechanisms that should include incentives for the development of the green economy and biodiversity, for example business partnerships and public fundraising mechanisms.

In this direction, the Biodiversity Development Strategy 2016–2020 especially proposes the implementation of three sets of measures:

- a) **Integration of a sustainable biodiversity economy (as part of the green economy) into principal flows of national and sectoral policies, strategies and plans**, in order for:
 - Sustainable use of land and goods, as well as production and consumption that takes into account natural resources, by making them relatively more profitable than biologically and environmentally unsustainable options.
 - Improving and expanding the market for green products and services, making them more attractive to producers and consumers in terms of prices.
 - Creating green jobs and acquiring expertise, in order to simultaneously generate income and redistribute the workforce in activities and sectors that benefit biodiversity, and provide the necessary capacity for growth in these sectors.

236 UNDP, "Identification of agricultural products with the highest added value on the territory of Montenegro and analysis of their 'value chains' with a special focus on the environment", (January 2020, E Co. Ltd., Great Britain, supported by UNDP).

237 These costs/investments in the field of nature protection and biodiversity far outweigh the future economic and environmental benefits. The net benefits will more than double in the next 25 years, and protected areas will achieve a total return of almost €29 per €1 of invested public funds. According to the same source, "Tourists and visitors who come for recreation are willing to pay almost €19 million per year more than is currently being charged for tickets" (Emerton Study, L. The economic value of protected areas in Montenegro, 2011, according to: Biodiversity Development Strategy of Montenegro with Action Plan 2015–2020, page 56).

- Promoting public and private investment in green infrastructure, including options for built infrastructure that avoid negative impacts on biodiversity or serve to improve biodiversity, as well as encourage investment in maintaining “natural infrastructure” as a means of providing key services and facilities.
 - Encouraging investment of public and private financial resources in business, technology and innovation in the field of biodiversity, working on overcoming barriers to access to financial resources, and improving the return on such investments.
- b) **The use of specific fiscal, market and price-based policy instruments to support biodiversity conservation, sustainable production and consumption.**
- c) Establishment of a legal, institutional and implementation framework for the **introduction of PES (payment for ecosystem services²³⁸)** – Implementation of PES can be through different models such as: environmental fiscal transfers (marking part of state revenues and allocating them to local government or local manager for reward and incentives for the conservation of ecosystem services used outside their territory-jurisdiction); or the introduction of new tariffs or charges for ecosystem-dependent products or sectors (e.g. water supply from sources in protected areas); or the direct use of public revenues to pay for private land of importance; or an owner-manager who supports ecosystem services, if economically justified. The competencies of the Environmental Protection Fund are expected to be strengthened in this area.

4.4. Implementation of the Forest Development and Forestry Strategy with a focus on fire protection measures, biodiversity protection and other forest ecosystem services

The Forest Development and Forestry Strategy 2013–2023, its revision and action plan, define five priority areas: 1. improvement of forests through sustainable management; 2. development of the wood industry; 3. the role of forestry in rural development; 4. protection of biodiversity and other forest ecosystem services; and 5. fire protection²³⁹. The financial statement of the action plan for the period 2019–2020 is €12.19 million. Also, the Strategy for Disaster Risk Reduction with the Action Plan for its implementation for the period 2018–2023 identified the dominant hazards in Montenegro, at the national and local levels, including forest fires. The document also consulted: Report on Success Audit, Success of the implementation of environmental protection policy in Montenegro – protection against forest fires, State Audit Institution, 22 October 2019²⁴⁰, where key recommendations were given for all involved institutions.

The proposal of measures to encourage green business in the agricultural sector (a roadmap) is given in the last chapter of the study, integrally for all sectors.

238 Natural ecosystems and the plants and animals in them provide people with services that would be difficult to duplicate if lost. Nature services, i.e. ecosystem services, are defined as “benefits that ecosystems provide to people” (FAO). They directly or indirectly affect people's survival and their quality of life. Well-managed, sustainable agricultural ecosystems not only provide food, but also provide many other benefits for farmers, wild plant and animal species, and for society as a whole. **There are four basic groups of ecosystem services in relation to their importance to humans:** a) supply services (related to raw materials obtained directly from ecosystems); b) regulation services (related to the regulation of ecosystem processes); c) support services (related to ancillary services that are the basis of the existence of all other ecosystem services); and d) services of cultural significance (relating to the intangible benefits that people receive from ecosystems) (<http://www.sasb-eu.org/sr/priroda/usluge-prirode>).

239 **Forest fires** pose a great danger to forests in Montenegro. The increasing number of fires is significantly degrading the ecosystem and disrupting its stability, leading to a decrease in biodiversity and an increase in devastated areas. Damage from forest fires includes: direct loss of wood mass, loss of protective and other functions of forests, occurrence of ecological erosion and water erosion, degradation of forest land (leaching, slipping, etc.), endangering roads and other public facilities, backfilling reservoirs, endangering economic branch, endangering fauna, endangering human lives, etc. Taking into account environmental and economic damage, fires pose the greatest threat to forest ecosystems in Montenegro. Fires from year to year are covering significant areas and causing enormous damage. The data indicate that in the period 2012–2018, i.e. 6 years, there were 532 forest fires, with a burned forest area of 34,628.18 ha, and an estimated damage of €6,492,496.

240 Report on Success Audit, Success of the implementation of environmental protection policy in Montenegro – protection against forest fires, State Audit Institution, 22 October 2019 (<http://www.dri.co.me/1/doc/Izvje%C5%A1taj%20o%20reviziji%20uspjeha%20%E2%80%9EUs-pje%C5%A1nost%20provo%C4%91enja%20politike%20za%C5%A1tite%20%C5%BEivotne%20sredine%20u%20Crnoj%20Gori%20%E2%80%93%20za%C5%A1tita%20od%20%C5%A1umskih%20po%C5%BEara%E2%80%9DD.pdf>).

2. ENERGY SECTOR

The energy sector of Montenegro is characterized by significant natural potential (coal, hydroelectric potential, biomass potential, wind and solar potential), which is underused, has low energy efficiency, and is also dependent on imports of electricity and fossil fuels. Most of the natural resources are located in the northern, underdeveloped region of Montenegro, and the valorization of resources provides not only energy security and independence, but also contributes to the more balanced economic development of the country.

The strategic development documents for this sector envisage relatively high **investments**, but due to the dynamic change of the environment and the form of investments, the strategic development documents must be continuously adjusted to changes in the development framework. Therefore, the development of energy in Montenegro must be a systematically programmed and guided process in order to achieve the desired goals, ensure the lowest possible energy dependence with sufficient energy at affordable prices and to develop projects in other sectors (tourism, transport, agriculture...).

The energy sector is of particular importance for **the economic and long-term development of Montenegro**, especially due to the following factors: there is a high level of correlation between the development of the energy sector and the dynamics of GDP growth; the energy production and supply sector determines the overall dynamics of industrial development and participates in the GVA structure with 4.2% (2018); about 41% of the total energy needs are imported (petroleum products and natural gas²⁴¹), which significantly affects the country's trade deficit; there is a strong impact on the situation in the field of environment protection, so recent development documents **incorporate climate and energy development goals**.

As energy is one of the most important areas of activity in the European Union, **management of the energy sector** is a particularly important field of activity of the institutions of the European Union, but also of the national authorities. The EU energy sector is divided into the following areas: electricity; gas; hydrocarbons; renewable energy sources; energy efficiency; and nuclear safety and radiation protection. In line with its strategic commitment to EU accession, Montenegro is aligning its energy policy and sector development goals with the Union. In this context, **Montenegro's goals in the field of energy are**: increasing the security of its energy supply; increasing the use of renewable energy; improving energy efficiency; attracting investment; and developing market competition²⁴².

Energy policy is a special branch in the overall economic policy of the state that deals with issues of: research and the use of energy resources; energy conversion; the transmission/transport and supply of energy within specific technological-economic, legal-regulatory and institutional-organizational conditions of the state, in order to provide energy services of an adequate level of quality and security of supply, in the context of socially acceptable socio-economic conditions and environmental protection requirements. Energy policy takes into account the radical structural and technological changes in global energy that are expected in the coming decades. By intensifying the activation of domestic energy potentials, Montenegro, as a Mediterranean country and a future member of the EU, can become a significant energy partner at the regional level. Energy policy must enable Montenegro's energy sector to develop as an open system in accordance with the energy system of the EU and the Energy Community, open to private, domestic and foreign investments.

The energy strategy is a strategic mechanism – a series of measures and instruments – the implementation of which envisages fulfilment of the adopted goals of the state energy policy. Energy development planning, and thus periodic updating of the highest-level strategic planning documents of the state in the field of

²⁴¹ Energy Balance for 2020 ("Official Gazette of Montenegro" No. 76/19).

²⁴² Energy Development Strategy of Montenegro until 2030, Action Plan 2016–2020, p. 9.

energy, is an obligation arising from the Law on Energy²⁴³. **The general guidelines for energy policy** will be determined from 2020.

1. Energy Balance of Montenegro

The Energy Balance of Montenegro includes the balance of electricity, the balance of coal, the balance of oil, petroleum products and biofuels, the balance of natural gas and the balance of thermoelectric energy for district heating and/or cooling and industrial use. The following table shows the achieved Energy Balance of Montenegro for 2018 and 2019, as well as the plan for 2020. Energy production and consumption are shown in energy units – TJ, to reduce them to the same value and for mutual comparability. Coal that is transformed into electricity in TPP Pljevlja is not taken into account, but the equivalent is included in the produced electricity.

Table 29. Energy balance of Montenegro, energy production and consumption in the period 2018-2020 (TJ)²⁴⁴

Structure	2018		2019		2020	
	Production	Consumption	Production	Consumption	Production	Consumption
Electric energy	13,478.4	12,492.0	12,629.6	12,723.4	12,434.4	13,015.0
Petroleum and gas	0.0	13,909.9	0.0	13,053.8	33330.0	15,372.9
Coal	1,236.0	1,236.0	1,289.0	1,289.0	1,305.0	1,305.0
Biomass	8,317.0	8,317.0	8,089.0	8,089.0	8,409.0	8,409.0
Total	23,031.4	35,954.9	22,007.6	35,155.2	22,148.4	38,101.9
The relationship between production and consumption	64.1%		62.6%		58.1%	

From the presented data it can be concluded that, out of the total energy needs, which are at a stable level, Montenegro has a significant shortfall, which amounted to about 36% in 2018, about 37% in 2019, while in 2020 that amount is planned at a level of about **41%**. Biomass and coal needs are fully covered from the country's own resources. The biggest impact on the total energy deficit in Montenegro has oil derivatives and natural gas, which in 2020 account for about 41% of total energy needs and which are imported for the needs of the domestic market as a whole.

Novelties in the energy sector, essential for the realization of the Energy Balance in 2020, are:

- On 15 November 2019, the **HVDC²⁴⁵ interconnection submarine cable between Montenegro and Italy** was officially put into commercial operation, which will increase the level of technical resistance of the energy system through higher utilization of the 400 kV network. Ultimately, revenues from transit and lease of transmission capacity will reduce the costs of transmission system users.
- On 15 November 2019, **the "Možura" wind farm** received a use permit to operate, which begins the commercial operation of the wind farm.

²⁴³ Energy Development Strategy of Montenegro until 2030, 2014.

²⁴⁴ Energy Balance of Montenegro for 2020, ("Official Gazette of Montenegro" No. 76/19).

²⁴⁵ High-voltage direct current – high-voltage submarine DC cable. Capacity 600 MV.

1.1. Electrical energy

The electricity sector is one of the most important segments of the energy sector in every country, including Montenegro. The installed capacity of power plants that participate in the regulation of the system is **874 MW**, of which 649 MW in storage hydroelectric power plants and 225 MW in thermoelectric power plants. The range of available active power at the threshold of power plants participating in the regulation of the system, depending on regular annual overhauls or necessary downtime due to equipment modernization, ranges from 430 MW (in August) to 848 MW (January, February, March and December).

The following table shows the achieved energy balances of electricity for the past 6 years, i.e. for the period from 2014–2019, as well as the planned energy balance of electricity for the current year 2020. Data for the period 2014–2018 was provided on the basis of official data of the Statistics Office MONSTAT. Data for 2019 is presented on the basis of the Report on the implementation of the Energy Balance for 2019, while the plan for 2020 is taken from the official Energy Balance of Montenegro for 2020.

Table 30. Energy balance of electric energy of Montenegro, 2014–2020 (GWh)

Structure	2014	2015	2016	2017	2018 ²⁴⁶	2019 ²⁴⁷	2020 ²⁴⁸
Hydroelectric power plants	1,716.1	1,459.9	1,807.2	1,033.8	2,092.0	1,697.3	1,823
Thermoelectric power plants	1,322.1	1,411.6	1,216.2	1,265.0	1,444.0	1,390.1	1,317
Wind farms	0	0	0	95	141	294	312
Solar power plants	1.9	2.1	2.2	2.2	2.3	1	2
Total production	3,040.1	2,873.6	3,025.6	2,396.0	3,679.3	3,382.4	3,454
Import	902.8	1039.7	1,209.8	1536.9	780	N/A	865.3
Export	641.5	516.8	905.9	416.7	976	N/A	704
Gross energy supply	261.3	522.9	303.9	1120.2	–196	100.4	161.3
Available electricity	3,301.4	3,396.5	3,329.5	3,516.2	3,483.3	3,482.8	3,615.3
Consumption in the energy sector	134.7	131.4	118	119	133.7	N/A	N/A
Transmission and distribution losses	556.5	585.8	540.7	512.2	503	506.5	524.3
Final energy consumption	2,610.2	2,679.3	2,670.8	2,885.0	2,846.6	2,976.3	3,091

It can be concluded that, during the total observed period, the most significant share in electricity production was achieved by **hydroelectric power plants**, except in 2017, and that it amounted to a maximum of 59.7% of the total electricity produced in 2016. The share of thermoelectric power plants, i.e. **TPP Pljevlja**, was on average at a level of about 40–45% of the total electricity produced. According to the plan for 2020, a further increase in electricity production from hydroelectric power plants is planned, and a decrease of that from thermoelectric power plants, both in absolute and relative terms (HPP – 53%, TPP – 38%). The remaining roughly 9% of electricity will be produced at **wind**²⁴⁹ and solar power plants (WPP – 9.03%, SE only 0.06%).

²⁴⁶ Statistical Office of Montenegro MONSTAT, Energy, Electrical Energy Balance, <https://www.monstat.org/cg/page.php?id=40&pageid=40>.

²⁴⁷ Report on Implementation of the Energy Balance for 2019, Ministry of the Economy, February 2020.

²⁴⁸ Energy Balance for Montenegro for 2020, ("Official Gazette of Montenegro" No. 76/19).

²⁴⁹ The planned production of electricity for 2020 from WPP Krnovo with an installed capacity of 72 MW is 201 GWh, while the planned production of electricity from WPP Možura with an installed capacity of 46 MW in 2020 is 111 GWh (Energy Balance 2020). Last year, the Montenegrin Ministry of the Economy announced a tender for the long-term lease of state-owned land to build a wind farm at the Brajici site with a minimum installed capacity of 70 MW. The

The share of **solar power plants** is very modest (SEs in 2019 achieved electricity production of 0.98 GWh, which is 48.8% of the plan). The biggest imbalance between production from renewable sources and gross consumption was realized in the summer months, which should be significantly improved by the construction and commissioning of the first large solar power plant "**Briska gora**"²⁵⁰.

In the observed period, Montenegro was mainly dependent on imports of electricity, except in 2018 when it had a surplus, with imports varying significantly due to different circumstances. According to the plan for 2020, **electricity imports** are planned at a level of less than 5% of total needs. Finally, it should be noted that the total amount of final energy consumption is affected, in addition to consumption in the energy sector, by still significant transmission losses.

In the following table the structure of final electric energy consumption for the period 2014–2018 is shown.

Table 31. The structure of final electric energy consumption of Montenegro, 2014–2018 (GWh)²⁵¹

Structure	2014	2015	2016	2017	2018
Industry	760.4	767.3	660.5	731.7	737.4
Transport	18.0	19.7	20.5	20.3	19.2
Agriculture	13.2	13.5	13.8	18.3	17.4
Trade and public services	637.1	635.9	725	798.8	800.5
Households	1,181.5	1,242.9	1,251	1,285.9	1,272.1
Final energy consumption	2,610.2	2,679.3	2,670.8	2,855	2,846.6

As can be seen, the most important consumers of electricity in Montenegro are from the category of households, with a total consumption of about 45%, followed by the sectors of industry and trade and public services, with about 26–28% of total consumption. The remaining electricity is consumed in the sectors of transport and agriculture.

The entities operating in the energy sector of Montenegro are:

- Electric Power Industry of Montenegro (EPCG), a company that performs production and supply of electricity;
- Montenegrin Electricity Transmission System (CGES), which is the electricity transmission system operator;
- Montenegrin Electricity Distribution System (CEDIS), which is the operator of the electricity distribution system; and
- Montenegrin Electricity Market Operator (COTEE), which is the market operator.

construction of the Gvozd/Krnovo wind farm with a capacity of 50 MW and an annual production of 140 GWh of electricity is also planned. In 2018, EPCG signed a Memorandum of Understanding with the Austrian company Ivica Holding GmbH regarding the project to build the Gvozd wind farm (<https://balkangreenenergynews.com/>).

²⁵⁰ The first phase of works for a solar power plant with an installed capacity of 250 MW at the Briska Gora site near Ulcinj will begin in 2020, with a construction deadline of 18 months. The planned annual production of the solar power plant, after the completion of both phases of the project (2024), will amount to about 450 GWh of electricity per year. The ownership structure of the project company winners of the state tender for the construction of a solar power plant is as follows: Finnish Fortum and EPCG, with 49% of the shares each; and the EPC (energy performance contracting) company Sterling & Wilson with 2% of the shares. (<https://balkangreenenergynews.com/rs/izgradnja-solarne-elektarne-briska-gora-snage-250-mw-pocinje-2020/>).

²⁵¹ Statistical office, MONSTAT, Energy, Electrical Energy Balance, <https://www.monstat.org/cg/page.php?id=40&pageid=40>.

1.2. Petroleum and gas

Since there is no production of petroleum products in Montenegro, the total quantities needed for the Montenegrin market are imported. The supplying of consumers with petroleum products in Montenegro in 2020 will be performed by a large number of oil companies that have licences for the sale and supply of petroleum products and gas²⁵². The following table shows the achieved energy balances of oil and gas for the past 6 years, i.e. for the period 2014–2019, as well as the planned energy balance of oil and gas for the current year 2020. The data for the period 2014–2018 is provided on the basis of the official data of the Statistical Office MONSTAT; data for 2019 is presented on the basis of the Report on the Implementation of the Energy Balance for 2019; while the plan for 2020 is taken from the official Energy Balance of Montenegro for 2020.

Table 32. Energy balance of petroleum and gas, 2014–2020 (kilotons)

Structure	2014	2015	2016	2017	2018 ²⁵³	2019 ²⁵⁴	2020 ²⁵⁵
Liquefied petroleum gas (LPG)	15.7	18	17.4	17.8	18.2	15	16.2
Natural gas	0	0	3.1	2.9	4	3.4	4.1
Motor gasoline	35.1	35.9	36.7	36.7	37	38.2	42.4
Kerosene	17.2	18.1	18.6	20	22.8	N/A	N/A
Diesel	161.5	174.5	204.3	228.9	247.1	263.1	250
Residual Fuel Oil (Ulje za loženje)	11.1	12.6	11.8	12	11.2	8.1	9.7
Heavy Fuel Oil	3.6	4.6	2.9	2	1.7	3.3	2.1
Other petroleum products	33.2	34.2	36.5	43.8	47.1	29.1	41.6
Total petroleum products	277.4	297.9	331.3	364.1	389.1	360.2	366.1

It is evident that, in the structure of consumption of oil and oil derivatives, the most significant proportion is from consumption of diesel, with about two-thirds of the total during the entire observed period, followed by a significantly lower proportion from consumption of gasoline and other petroleum products. In the period 2014–2018, the total consumption was constantly increasing, while for the last and current year it is not possible to draw the most accurate conclusions due to the lack of data on kerosene consumption. The following table shows the structure of final oil and gas consumption for the period 2014–2018.

Table 33. Structure of final oil and gas consumption of Montenegro, 2014–2018 (kilotons)

Structure	2014	2015	2016	2017	2018
Industry	45.5	50.9	52	60.1	59
Transport	184.9	197.4	229.7	246.8	268.2
Agriculture	5.5	6.1	3.3	3.1	3.5
Trade and public services	7.3	8.4	8.8	9.2	9.8
Households	1	0.9	1	1.1	1.5
Non-energy consumption	33.2	34.2	36.5	43.8	47.1
Total petroleum products	277.4	297.9	331.3	364.1	389.1

²⁵² Pursuant to the Rules on the Manner and Conditions for Issuing, Amending and Revoking Licences for Performing Energy Activities ("Official Gazette of Montenegro" No. 61/13).

²⁵³ Statistical Office of Montenegro, Energy, Electrical Energy Balance, <https://www.monstat.org/cg/page.php?id=40&pageid=40>.

²⁵⁴ Report on the Implementation of the Energy Balance for 2019, Ministry of the Economy, February 2020.

²⁵⁵ Energy Balance of Montenegro for 2020, ("Official Gazette of Montenegro" No. 76/19).

The most significant consumption of oil and oil derivatives is expected to take place in the transport sector, about 70% of total consumption, followed by the industrial sector. The share of the sectors of agriculture, trade and household in oil and gas consumption is at a much lower level.

In the oil and gas sector, the main **energy entities** in Montenegro are:

- Jugopetrol Podgorica – a joint-stock company for exploration, production and trade in oil and oil products.
- Montenegro Bonus Cetinje – a public-owned company engaged in the wholesale of petroleum products, trade and electricity supply.
- Petrol MNE, INA Montenegro, as well as a number of other companies licensed to import and distribute petroleum products in Montenegro. A natural gas market in Montenegro has not yet been established, because Montenegro does not have access to natural gas, nor does it have a developed gas infrastructure.

1.3. Coal

The following table shows the achieved energy balances of coal for the past 6 years, i.e. for the period 2014–2019, as well as the planned energy balance of coal for the current year 2020. Data for the period 2014–2018 was obtained on the basis of the official data of the Statistical Office MONSTAT; data for 2019 is presented on the basis of the Report on the Implementation of the Energy Balance for 2019; while the plan for 2020 is taken from the official Energy Balance of Montenegro for 2020.

Table 34. Energy balance of coal, 2014–2020 (kilotons)

Structure	2014	2015	2016	2017 ²⁵⁶	2018 ¹⁷	2019 ²⁵⁷	2020 ²⁵⁸
Dark coal	0	1.1	47.8	53.9	56.44	43.48	58.3
Lignite	1,630.5	1,718.7	1,313.1	1,328.9	1,539.12	1,561.62	1,602.0
Total coal	1,630.5	1,719.8	1,360.9	1,382.8	1,595.56	1,605.10	1,660.3

It is evident that coal production is based on lignite, while relatively small amounts of brown coal production were recorded. Coal production had slight variations in the previous period, from about 1.36 to 1.71 million per year, while for the current year 2020 production is planned at the level of about 1.66 million tons. The following table shows the structure of final coal consumption for the period 2014–2020.

Table 35. Structure of the final coal consumption in Montenegro, 2014–2018 (kilotons)

Structure	2014	2015	2016	2017	2018 ²⁵⁹	2019	2020 ²⁶⁰
Thermoelectric power plant	1,597	1,668.8	1,306.3	1,340.3	1,543.7	1,442.7	1,460
Industry	13.7	29.7	28	24.9	11.9	31	51.5
Trade and public services	5.9	6.8	7.1	7.4	7.9	105.3	90.5
Households	13.9	14.5	19.5	10.2	9.2		
Total coal consumption	1,630.5	1,719.8	1,360.9	1,382.8	1,572.7	1,579	1,602

²⁵⁶ Statistical Office of Montenegro, Energy, Electrical Energy Balance, <https://www.monstat.org/cg/page.php?id=40&pageid=40>.

²⁵⁷ Report on the Implementation of the Energy Balance for 2019, Ministry of the Economy, February 2020.

²⁵⁸ Energy Balance of Montenegro for 2020, ("Official Gazette of Montenegro" No. 76/19).

²⁵⁹ Statistical Office MONSTAT, Energy, Electrical Energy Balance, <https://www.monstat.org/cg/page.php?id=40&pageid=40>.

²⁶⁰ Energy Balance of Montenegro for 2020, ("Official Gazette of Montenegro" No. 76/19).

It is known that coal production in Montenegro is mainly intended for the operation of Pljevlja Thermoelectric Power Plant, so the share of the thermoelectric power plant within total coal consumption in some years was over 98%. In 2020, the share of TPP Pljevlja within total consumption of coal is at a level of about 91%, while the remaining coal is intended for consumption in the sectors of industry, households and trade. Pljevlja Coal Mine is the most important company operating in the mining sector of Montenegro.

2. Strategic framework of the energy sector

2.1. Review of the Energy Development Strategy of Montenegro until 2030

The Energy Development Strategy until 2030 determines²⁶¹:

- I. Long-term development goals and guidelines for the development of the energy supply and fulfilment of technological and economic criteria, in accordance with the conditions of environmental protection;
- II. Directions for the development of the energy infrastructure and measures to encourage the use of renewable energy sources and increase energy efficiency;
- III. Long-term projection of the overall energy balance of the country, dynamics and manner of achieving and monitoring development goals, as well as assessment of their effects;
- IV. Other objectives and elements relevant to the determination and implementation of energy policy in accordance with the law; and
- V. Indicative financial resources for the implementation of the strategy.

The basis for drafting the Energy Development Strategy of Montenegro until 2030 was the “Energy Policy of Montenegro until 2030”, a document adopted by the Government of Montenegro in March 2011. The energy policy has identified **three priorities** in the development of energy in Montenegro until 2030²⁶²:

1. Security of the energy supply;
2. Development of a competitive energy market; and
3. Sustainable energy development.

The first priority implies a constant, secure, high-quality and diverse energy supply in order to balance delivery with customer requirements. The second priority is to ensure a liberalized, non-discriminatory, competitive and open energy market based on transparent conditions, as well as to enable free market competition. In addition, this priority indicates the need to base the pricing policy for energy products on market principles, as well as to create conditions for the unhindered entry of new market participants (independent energy producers, suppliers and traders). The third priority is to ensure the development of energy based on the accelerated but rational use of the country's own energy resources, while respecting the principles of environmental protection, increasing energy efficiency (EE) and enabling greater use of renewable energy sources (RES).

Within the Energy Development Strategy of Montenegro until 2030, the most significant **advantage** of this sector is that the energy sector is, above all, a pillar of the overall, sustainable and long-term stable development of the state of Montenegro, with evidently positive macroeconomic effects. Given Montenegro's clear commitment to European integration, the active role of the state in international cooperation in the field of energy, as well as in energy-sector reform activities, is very important. In addition, it is evident that there is a significant potential for the use of RES, and especially hydroelectric power. An important positive fact is Mon-

²⁶¹ The Energy Development Strategy of Montenegro until 2030.

²⁶² Energy Policy of Montenegro until 2030.

tenegro's good position, i.e. the fact that it is on strategically important routes for the construction of energy corridors to Croatia, Bosnia and Herzegovina, Serbia, Kosovo, Albania and Italy. Favourable preconditions have been created for private-sector investment in the field of energy in Montenegro, especially in the area of RES.

In addition to the above advantages, there are still certain **weaknesses** in this sector, to overcome which additional efforts must be made. Some of the main weaknesses are manifested in the fact that Montenegro is highly energy-dependent on imports (for its total needs of liquid and gaseous fuels and a certain part of electricity), as well as the insufficient exploration of certain resources (oil and gas and individual RES). There are still significant losses in the transmission and distribution of electricity, as well as energy inefficiency in final energy consumption. Weaknesses include the uncontrolled use of biomass, i.e. uncontrolled deforestation and inefficient use of biomass for space heating, wood-fuel production or district heating. At the same time, there is a high level of depreciation of the existing energy infrastructure, and there is a need for its revitalization and technological modernization.

In order to achieve the defined priorities, the following **strategic commitments**²⁶³ have been identified:

- maintenance, revitalization and modernization of the existing and construction of new infrastructure for energy production, transmission and distribution;
- reduction of dependence on electricity imports: (i) reducing the specific consumption of final energy; (ii) increasing energy production (primary and secondary) by using the country's own resources; and (iii) reducing energy losses from production to final consumption;
- increasing energy efficiency;
- increasing the use of renewable energy sources;
- improvement of heating and/or cooling systems in buildings;
- realization of strategic 90-day reserves of oil derivatives, in accordance with Montenegro's dynamics and obligations towards the Energy Community or the European Union;
- exploration of oil and gas under the Montenegrin seafloor and on land, as well as coal in the Pljevlja and Berane basins;
- a proactive role of state policy in efforts to provide access to natural gas systems through international projects (Ionian–Adriatic gas pipeline, Trans-Adriatic gas pipeline, etc.), development of natural gas systems (including construction of regional gas pipelines and natural gas facilities);
- increasing the efficiency of energy companies by reducing operating costs, technical and commercial energy losses;
- continuation of the restructuring of energy entities and the timely adoption of plans for further development;
- sustainable development of energy in relation to environmental protection and international cooperation in this field, especially regarding the reduction of greenhouse gas emissions in accordance with the Paris Agreement;
- encouraging research, development, transfer and application of environmentally sustainable new technologies in the energy sector;
- harmonization of the legislative and regulatory framework according to EU requirements;
- creating an appropriate legislative-regulatory and institutional-financial framework to encourage private-sector participation and investment in energy;
- providing social protection to vulnerable electricity customers;
- reaching an agreement with neighbouring countries regarding the optimal use of the common hydroelectric potential and water management, as well as the planning and construction of new electricity interconnection lines for connection with those countries; and
- active international cooperation in the field of energy.

²⁶³ The Energy Development Strategy of Montenegro until 2030.

2.2. Review of “Development Directions of Montenegro 2018–2021”

The development document “Development Directions of Montenegro 2018–2021” has determined the strategic goal of Montenegro’s development, that is to increase the quality of life of Montenegrin citizens in the long run. In order to achieve the strategic development goal, **four priority development sectors** have been formally identified: tourism; energy; agriculture and rural development; and the processing industry.

In the direction of development, in the field of energy, it was emphasized that in the coming period, activities would continue to create conditions for reducing dependence on imports, i.e. to ensure a safe and high-quality energy supply to all consumers. The focus of energy policy is also the improvement of EE in the entire energy supply-and-use chain.

Priority measures in the field of energy include the following²⁶⁴:

- construction of additional capacities for production based on renewable energy sources, which will use domestic renewable sources, reduce dependence on imported electricity and improve the security of the energy supply for the Montenegrin economy;
- modernization and rehabilitation of the distribution system, which, together with measures to reduce non-technical losses, will reduce the costs of electricity distribution;
- completion of the reconstruction and revitalization of existing power facilities with the aim of ecological stabilization and an increase in production capacities;
- improvement of the transmission network, where the priority is the construction of infrastructure facilities that are an integral part of the project of construction of the Montenegro–Italy submarine cable;
- improving the regulatory and institutional framework in the field of energy efficiency, including improving construction regulations, introducing energy efficiency labels, introducing eco-design principles for household electrical appliances and introducing an energy efficiency component in spatial planning documentation;
- continuation of the implementation of energy efficiency projects in public facilities, primarily educational and health, which ensures the reduction of consumption;
- continuation of the implementation of projects to support citizens for the use of efficient technologies and renewable energy sources on the consumption side;
- establishing an energy management system in the public sector; and
- raising public awareness and application of good practice in the field of energy efficiency, especially with public-sector institutions, local governments, large consumers, professional organizations and other actors.

2.3. Renewable energy sources/RES

With the Decision of the Ministerial Council of the Energy Community of 18 October 2012 (D/2012/04/MC-EnCT)²⁶⁵, Montenegro and other members undertook the obligation to implement Directive 2009/28/EC²⁶⁶ on the promotion of the use of energy from renewable sources. The same act also sets binding national targets for **the share of energy from renewable sources** within the total final energy consumption in 2020. For Montenegro, the national target is set at **33%** in 2020 by sector (electricity 51.4%; heating and cooling 38.4%;

²⁶⁴ Development Directions of Montenegro 2018–2021.

²⁶⁵ Treaty establishing the Energy Community, <http://www.cges.me/regulativa/medjunarodni-propisi?download=55:energy-community-treaty>.

²⁶⁶ <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:140:0016:0062:EN:PDF>.

and transport 10.2%), starting from the reference share in 2009, which in Montenegro amounted to 26.3%.

The report on the implementation of the National Action Plan for the Use of Energy from Renewable Sources until 2020 for the period 2016–2017 established that the share of RES within the total final energy consumption in Montenegro was 31.8% in 2016, and 32.3% in 2017²⁶⁷. With the commissioning of WPP Možura and new small hydroelectric power plants, Montenegro is expected to achieve the set national goal for RES by 2020.

The Energy Development Strategy of Montenegro until 2030 envisages that the use of RES is a priority in the energy policy of Montenegro, which will be realized through²⁶⁸:

- **Creating a favourable environment** for the development and use of RES and achieving the national goal for the share of RES within the total final energy consumption;
- **Continuation of research into the potential of RES** and study work on research into the possibility of exploiting the remaining available potential of RES;
- **Increasing the share of RES use in transport** in order to ensure that the share of RES within the total energy consumption in transport is reached, in accordance with the obligations of the state.

The total production from RES in 2018 amounted to 2,300 GWh (8,280.00 TJ), the realization for 2019 was 1,992.31 GWh (7,172.31 TJ)²⁶⁹, while the plan for 2020 is 2,137 GWh (7,693.20 TJ). In 2018, production from RES was realized at the level of 61.43% of the total production of electricity in Montenegro. For 2019, that percentage is estimated at 57.2%, while the plan for 2020 is to produce 61.87% of the total electricity from renewable sources.²⁷⁰

Also, it is estimated that in 2019 **biomass production** will be realized as follows: firewood at a quantity of 742,210,667 m³; wood residue at a quantity of 105,987 m³; wood chips at a quantity of 11,365.66 tons; wood briquettes at a quantity of 140 tons; and wood pellets at a quantity of 47,924.33 tons. In energy units, the total biomass production for 2019 is estimated at 8,089.00 TJ. The production plan for 2020 was taken as the average for the last three years and amounts to 8,409.00 TJ.

The total energy produced from coal (excluding coal that is transformed into electricity in TPP Pljevlja) in 2018 amounted to 1,236 TJ; in 2019 it was estimated at 1,289 TJ, while in 2020 it is planned to be 1,305 TJ. From the above data it can be concluded that the ratio of energy produced from renewable sources in total electricity production in 2018 was **72.06%**, in 2019 it was estimated at 69.28%, and for 2020 it is planned at 72.70%.²⁷¹

The Draft Law on Amendments to the Law on Energy (March 2020), in the amended Article 18, states that “the sources and scope of energy use from renewable sources are determined by the **National Energy and Climate Plan in accordance with the Energy Policy and regulations on energy efficiency and reduction in greenhouse gas emissions**”. These goals will be determined on the basis of the energy needs, economic opportunities and obligations of Montenegro undertaken on the basis of a ratified international agreement.

Achieving the mandatory share of energy from RES within the total final energy consumption is in the public interest.

267 Report on the implementation of the National Action Plan for the Use of Energy from Renewable Sources until 2020, for the period 2016–2017, Ministry of the Economy, 26 December 2019.

268 Energy Development Strategy of Montenegro until 2030.

269 Report on the Implementation of the Energy Balance for 2019, Ministry of the Economy, February 2020.

270 Energy Balance of Montenegro for 2020, (“Official Gazette of Montenegro” No. 76/19).

271 Energy Balance of Montenegro for 2020, (“Official Gazette of Montenegro” No. 76/19).

The energy content of fuels and the method of calculating the total energy consumption used in traffic, the method of calculating the amount of electricity produced in hydroelectric power and wind farms, the method of calculating the impact of biofuels, bio-liquids and comparable fossil fuels on greenhouse gas emissions, as well as the manner of calculating the amount of energy from heat pumps shall be determined by a regulation of the Ministry.

2.2.4. Energy efficiency (EE)

The general goal of the Energy Development Strategy in the field of energy efficiency (EE)²⁷² is to **improve EE and reduce the energy intensity in all sectors**, from production to final energy consumption, through strengthening the legislative, regulatory and institutional framework and its harmonization with the provisions of the Energy Community Treaty (EnCT²⁷³).

EE is one of the priorities of energy policy in Montenegro, but also beyond its borders, in the region of South-East Europe and the EU. EE continues to gain particular importance in an environment characterized by high import dependence, high energy prices and concerns regarding the security of the energy supply. EE is recognized as an economical and fast way to increase the security of the energy supply, but also to reduce greenhouse gas emissions that are responsible for climate change. An energy-efficient economy has a positive impact on economic growth and job creation, and is of great importance for Montenegro, where energy demand is rather uneven.

The indicative goal of EE improvement for the period 2010–2018 was determined at the level of 58.9 ktoe (kilotons of oil equivalents) expressed in primary energy, or 9% of the final consumption of primary energy in Montenegro²⁷⁴. The total energy savings that needed to be achieved in the nine-year period was 9% of the average final energy consumption, which is 37.4 ktoe in energy units, or 4.16 ktoe per year. In order to consider the degree of realization of the indicative goal of EE for the period 2010–2018, based on the available data listed in the Fourth APEE of Montenegro 2019–2022, a preliminary analysis was performed which shows that the energy savings achieved in the previous nine-year period amounted to 49.76 ktoe, which is 84.5% of the indicative target. The indicative target of EE on the side of final energy consumption for the period 2019–2021 is given in the Fourth APEE of Montenegro 2019–2022. The EE Directive²⁷⁵ requires each country to start realizing annual energy savings of 0.7% of total final energy consumption from 2017 (4.16 ktoe per year in 2019–2021)²⁷⁶.

2.2.5. Towards a new energy policy and a national energy and climate plan

The Law on Energy ("Official Gazette of Montenegro" Nos. 5/16 and 51/17) defines energy activities and regulates the conditions and manner of their performance in order to provide quality and secure energy supply to end-customers, encourage energy production from renewable sources and highly efficient cogeneration, the manner of organizing and managing the electricity and gas market, as well as other issues of importance for energy.

The amendments to the Law on Energy (June 2020) envisage significant innovations in the strategic

272 Energy Development Strategy of Montenegro until 2030.

273 Treaty establishing the Energy Community – EnCT.

274 According to the Energy Community Treaty, Montenegro has committed itself to achieving an indicative target value in the field of energy efficiency of 9% savings in the average final energy consumption in the country, or about 1% per year in the period 2010–2018.

275 Directive 2012/27/EU.

276 The Fourth Action Plan of Energy Efficiency of Montenegro for the period 201–2021

framework for the development of this sector, i.e. planning for the development of the energy sector. Instead of a strategy and action plan, **the General Guidance for the Energy Policy of Montenegro** is proposed, which will determine long-term goals and the economic and institutional-organizational framework of energy development.

The General Guidance should be harmonized with the long-term development strategy of Montenegro, as well as with the Spatial Plan. The energy policy is developed and implemented by **the National Energy and Climate Plan (NECP)**, the action plan for the development and use of district heating and/or cooling and highly efficient cogeneration, local energy plans and energy balance. The NECP is adopted for a period of 10 years.

Also, the mentioned amendments abolish the obligation to determine an action plan for the use of energy from renewable sources, because that plan, in accordance with Directive 2009/28/EC on the promotion of the use of energy from renewable sources, covers the period until 2020. Regulation (EU) 2018/1999 on energy union management and action in the field of climate provides for the adoption of integrated national energy and climate plans for the period until 2030, which, among other things, determine the share of energy from RES within the total final energy consumption in 2030.

The National Energy and Climate Plan will be structured as follows:

- 1) a review of the current situation in terms of relevant policies and the procedure for adopting the plan;
- 2) **national targets** related to the following areas:
 - greenhouse gas emissions;
 - use of energy from renewable sources;
 - energy efficiency;
 - energy security;
 - the internal energy market; and
 - research, innovation and competitiveness.
- 3) a review of the planned policies and measures related to the achievement of national goals and a review of the financial resources required for their achievement;
- 4) description of the current situation for areas in which national goals are defined and projections for achieving national goals from the implementation of existing policies and measures;
assessment of the effects of planned policies and measures for achieving national goals.

3. Energy and policy on climate change mitigation

Environmental damage in energy occurs in the form of quantitative problems, through depletion of natural resources and destruction of ecological systems and in the form of qualitative problems whereby toxicity of products, production processes and waste find their way into soil, water and air pollution, increased health risks and additional threats to ecological systems.

According to the World Energy Council (WEC)²⁷⁷, **the key challenges** facing the world in meeting the growing energy needs of the 21st century are:

- **Accessibility** – energy must be available at prices that are acceptable to poor people, but also that enable production, transformation and distribution, i.e. provide a basis for further development and maintenance of energy systems (investments in energy infrastructure);
- **Availability** – continuous energy supply over a long period of time and with satisfactory quality of services; this means diversifying the energy portfolio over the next five decades according to the specific circumstances in each country, with the introduction of new energy sources, especially RES;
- **Acceptability** – harmonization of social and environmental goals, in order to remedy multiple environmental problems (forest disappearance, land degradation, increased acidity at the regional level, pollution resulting from the combustion of conventional energy sources, the effect of greenhouse gases and the climate change caused by them, nuclear safety, waste management, etc.). Global climate change has become a matter of serious concern. On the one hand, there is a growing level of GHG emissions from the economy and households that create local (urban) and regional pollution, and on the other hand, there is the question of the impact that measures to adapt to climate change have on the economy. The energy sector is an area where new and available technologies have already reduced emissions, with a tendency to further improve. Technologies that take into account the need to protect the environment continue to be developed, maintained and spread to all parts of the world. Therefore, there is a need to strengthen local capacities that will ensure that these new, available technologies are developed and maintained by the local population (and in less developed countries). Energy resources must be used in a way that protects the environment, locally and globally, today and in the future.²⁷⁸

Based on the three energy targets (Triple-A), **the key (local and international) climate change mitigation policy instruments** are:

- energy and carbon taxes (internalization of external environmental costs – adding external costs to the individual costs of performing a certain economic activity, according to the “polluter pays” principle);
- abolition of subsidies for fossil fuels;
- emissions trading schemes;
- subsidies for low-carbon energy options, including subsidies for renewable energy sources and various energy efficiency growth measures (a choice of energy mix that reduces carbon intensity);
- introduction of international standards into national regulations (with the obligation to monitor and fully implement them);
- voluntary agreements (as a complementary measure to other measures),
- as well as information and public awareness campaigns (gaining the general public for all other measures, education and promotion of a low-carbon approach to development)²⁷⁹.

Global energy goals are often defined through the 4E concept – Energy, Ecology, Economy and Efficiency.

²⁷⁷ World Energy Council, *Energy for Tomorrow's World – Acting Now!*, 2000, <https://www.worldenergy.org/>.

²⁷⁸ Streimikiene, D. and Ciegis, R. *Sustainable Energy Development and Climate Change Mitigation*, in *Sustainable Development Research Advances* (ed. Barton A. Larson), Nova Science Publisher, 2007, pp. 7–67.

²⁷⁹ The greatest impact on 3A energy targets is exerted by the measure of abolishing subsidies on fossil fuels (12 out of a maximum of 15) and the measure of subsidies for greater use of RES and growth of EE (11). Then, emissions trading, international standards in national legislation and voluntary agreements (10), energy and carbon taxes (8), and information campaigns (7).

The energy sector and environmental protection policy (climate change mitigation policy) are closely linked, because practically all energy sources and plants have a greater or lesser impact on the environment, so there is no completely clean energy source. In the production of primary energy, the most significant impacts occur in the production of coal, oil shale and nuclear raw materials, while the impact of oil and natural gas production is much smaller. Secondary energy production has a significantly greater impact on the environment.

In the production of coal by underground exploitation, there are no significant impacts on the environment, because the application of appropriate methods of exploitation can eliminate possible landslides. The negative impact of surface exploitation, in addition to the temporary but also longer occupation and change of land use, in places where there are coal deposits, is also reflected through the occupation of additional agricultural land that is engaged in tailings, drainage of surface mines (which affects the level and regime of groundwater) and air pollution by dust (which negatively affects the population and agricultural crops near mines). Coal mining itself changes the relief of the land, affects the climate, relocates existing infrastructure facilities or builds new ones that serve coal exploitation, which also reduces the area of agricultural land.²⁸⁰

In the production of oil and gas, problems can arise only if all the necessary protection and safety measures are not implemented. Most often, pollution occurs due to uncontrolled spillage of oil and oil derivatives, as well as during the deposition of mud near wells, which due to their physical and chemical composition lead to significant consequences on land and water.

During the production of secondary energy, thermoelectric power plants have significant negative impacts on the environment, due to the emission of flue gases – soot, ash, carbon monoxide, nitrogen and sulphur. Almost all combustible sulphur from coal is converted into sulphur dioxide. As a result of SO_x emissions, acid rain also occurs, which has a pronounced harmful effect on plants, and can also cause corrosion. Increasing the acidity of the soil slows down the growth of forests and other plants, and increasing the acidity of water has a detrimental effect on the growth of flora and fauna in the water. Research has shown that coal combustion is by far the largest source of sulphur dioxide emissions. Fuel oil and heating oil contain sulphur, but in smaller percentages than in coal, so that their combustion emits less CO₂ per unit of energy produced.²⁸¹

Carbon dioxide affects the environment indirectly through climate change, while nitrogen oxides also occur as a result of combustion in thermal power plants, due to the physical essence of their formation.

Particulate emissions come from boiler furnaces, from coal landfills and ash and slag landfills. While the pollution from landfills is incurred in the immediate vicinity, the ash thrown out through the chimney can be transferred over long distances, depending on the height of the chimney and meteorological conditions.

Water pollution, in addition to the effect of atmospheric water on coal and ash landfills, also occurs as a result of the discharge of wastewater from thermoelectric power plants. Wastewater can be chemically polluted and oily.²⁸²

Hydroelectric power plants have a many times lower negative impact on the environment than thermoelectric power plants, and they are manifested through the construction of artificial reservoirs (which cause changes in the ecosystem and changes in the physical and biological characteristics of the environment), increased sedimentation, erosion of reservoir banks and downstream flow, changes in accumulated water

²⁸⁰ Marković, S. D. Process and Energy Efficiency, University of Singidunum, Belgrade, 2010.

²⁸¹ Vujošević, M. The Impact of the Pljevlja Thermoelectric Power Plant on the Health of the Population, NGO Green Home, 2013.

²⁸² Air pollution from electricity-generating large combustion plants, EEA Technical Report No. 4/2008.

quality, changes in the seismic characteristics of the region, changes in the local climate, changes in ground-water levels, changes in the way of life of fish and river animals, changes in the microclimate, etc.²⁸³

Heat production in heating plants and power plants, depending on the type of fuel used, affects the environment to a greater or lesser extent, similar to thermoelectric power plants. Since coal is very often used, special attention should be paid to protection against SO_x and NO_x, because these facilities are most often located in urban centres.

It is completely clear that the negative environmental effects that occur in the processes of the production and consumption of electricity are significant, and therefore the goal of every country is to undertake and improve permanent and continuous activities to reduce these impacts.

4. Incentive measures in the energy sector in Montenegro

4.1. Incentive measures for the use of renewable energy sources and highly efficient cogeneration

The use of renewable energy sources and highly efficient cogeneration²⁸⁴ is encouraged by promotional and incentive measures (Law on Energy, "Official Gazette of Montenegro" Nos. 5/16 and 31/17, Article 23).

Promotional measures:

- The Ministry of the Economy is obliged to make information on the advantages and specifics of the use of renewable energy sources, as well as incentives applied for the use of renewable energy sources, publicly available.
- The supplier of equipment and systems for the use of heating, cooling and electricity from renewable energy sources is obliged to make information on the net benefit, costs and energy efficiency of that equipment and system available to the customer, upon delivery.
- The Ministry, in cooperation with the competent state administration bodies, the organization responsible for energy regulation and local self-government units, will prepare appropriate informational materials, information or training programmes to inform citizens about the benefits and practical aspects of development and use of energy from renewable sources.

Incentive measures:

- include: the **mandatory purchase** of electricity, **incentive prices** at which that energy is purchased, the period of validity of the mandatory purchase of electricity, exemption from payment of balancing services, priority in taking over the produced electricity into the system, as well as other measures in accordance with this law.
- are awarded in a competitive bidding process on the basis of clear, transparent and non-discriminatory criteria, except for electricity generation facilities with a capacity of up to 1 MW.

²⁸³ Hydropower Pressure on European Rivers, World Wide Fund for Nature, <https://www.wwf.eu/?uNewsID=356413>.

²⁸⁴ **Cogeneration**, in terms of this law, is the combined and simultaneous production of thermal energy for district heating and/or cooling and electricity or heat for district heating and/or cooling and mechanical energy in a single process. A **small cogeneration facility**, in terms of this law, is a cogeneration facility with an installed capacity of less than 1 MWe, and a micro-cogeneration facility is a cogeneration facility with an installed capacity of less than 50 kWe. **Highly efficient cogeneration**, in terms of this law, is cogeneration which achieves primary energy savings of at least 10% in relation to the reference values for separate production of heat and electricity and cogeneration in small and micro-cogeneration facilities which ensure primary energy savings (Art. 20 of the Energy Law).

Article 24 of the Energy Law regulates the **payment of fees for encouraging the use of renewable energy sources**. “The final buyer of electricity is obliged to pay a fee to encourage the production of electricity from renewable sources and highly efficient cogeneration, in addition to the price of electricity, and the final buyer of petroleum products is obliged to pay a fee to encourage the use of biofuels as a supplement to the price of petroleum products.”

Compensation funds collected from end-customers are used to pay for electricity to eligible producers, in addition to funds collected on the basis of electricity supplied by the market operator to the supplier or self-supplier at the price of active energy from the sales contract.

The Decree on the Fee for Encouraging the Production of Electricity from Renewable Sources and Highly Efficient Cogeneration (“Official Gazette of Montenegro” No. 29/19) regulates the method of determining the fee for encouraging the production of electricity from renewable sources and highly efficient cogeneration and distribution of funds collected from fees, a closer way of calculating the proportional share of the electricity supplier and the self-supplier customer and dealing with the surplus or deficit of collected funds in the purchase and sale of electricity from eligible producers.

The incentive price is the price paid to a privileged producer of electricity from facilities using renewable sources and facilities for highly efficient cogeneration, in accordance with the electricity purchase agreement that the privileged producer concludes with the market operator.

According to the Article 18 of the Energy Law, **the realization of the obligatory share of energy from renewable sources** within the total final energy consumption is determined in accordance with the obligations undertaken by the confirmed international agreement (national target for 2020 – 33%). In Article 98 of the Law, paragraph 3, states that “the Government will stop encouraging the construction of new facilities for the production of energy from renewable sources, and the Agency will stop further granting the status of **privileged producer** in the case where the national goal is reached, if the construction of these facilities would achieve a share of energy from renewable sources within the total final energy consumption higher than the obligatory one, as well as before the realization of the national goal, temporarily limit incentives in case of serious negative impacts on the economy and the social status of end-customers”.

Starting from the need for:

- further stimulation of **energy production from RES**;
- **energy export** opportunities; and
- the plan to reduce production at Pljevlja Thermoelectric Power Plant²⁸⁵.

One part of the amendments adopted by the **Law on Amendments to the Law on Energy** (June 2020) also refers to incentive measures in this area.

First, the adoption of a new General Guidance for Energy Policy and a new National Energy and Climate Plan until 2030 is envisaged, which will define new national goals, i.e. **integrated climate and energy goals**

²⁸⁵ The planned reduction of greenhouse gas emissions for the period 2020–2030 is determined in the Decree on Activities that Emit Greenhouse Gases for which a Permit is Issued for the Emission of Greenhouse Gases, “Official Gazette of Montenegro” No. 8/20). The Regulation states the following: In order to achieve total greenhouse gas emissions in accordance with ratified international agreements, the total allowable emissions of **stationary plants** that lead to greenhouse gas emissions will be reduced in the period 2020–2030 by 1.5% annually. **The plan to reduce the number of free emission credits**: In order to urgently and sustainably adjust the business of electricity producers to the conditions applicable in the single electricity market of the European Union, free emission credits are granted only for part of the total production: for Pljevlja Thermoelectric Power Plant for 2020 – 1,020,840 tCO₂eq. From 2021, the number of free emission credits granted annually for a TPP plant is determined by a reduction at an annual rate of 5%, until the complete abolition of free emission allocations after 2025. For the purposes of calculating the emitted equivalent CO₂, an emission factor of 1.05 shall be applied in relation to the amount of coal consumed in the relevant period.

by 2030. Furthermore, in Article 98, the new paragraphs 4 and 5 state that “the **compulsory purchase of electricity under market conditions** may be applied as an incentive measure for the use of renewable energy sources and highly efficient cogeneration”. This measure would be awarded in a competitive bidding process based on clear, transparent and non-discriminatory criteria.

The proposal of the Law on Amendments to the Law on Energy (June 2020) has been adopted, *inter alia*, in order to simplify and shorten the procedure for connecting user facilities to the electricity system:

- **more favourable conditions are prescribed** for the production of electricity from renewable sources or highly efficient cogeneration for one's own needs;
- **simplification and shortening of the procedure for connecting the user's facility to the electricity system**, as well as eliminating restrictions for connecting the customer's facility, in cases where the investor builds the infrastructure necessary for connection at his own expense;
- conditions are prescribed that will contribute **to a larger volume of electricity production from renewable** sources or highly efficient cogeneration for one's own needs.

The institution of the **customer-producer**²⁸⁶ is also introduced – a final customer which produces electricity from renewable sources or highly efficient cogeneration for **its own** needs with the occasional transfer of surplus electricity produced to the distribution system (Article 96). The customer-producer, which produces electricity from RES in a plant of installed power that does not exceed the value of the connected power of the end-customer (defined here as the technological criterion of installed capacity), has the right to **exchange** electricity delivered to the system and taken from the distribution system (commercial net measurements and net calculations). These changes to the legislative framework also include the following:

- **the method of calculating** the quantities of delivered and taken electricity by the supplier to the customer-producer, the treatment of the fee for the use of the distribution network and other fees, is defined;
- a **simplified procedure for connection** to the network and the content of the contract on the construction of infrastructure for connection is defined;
- it is necessary to **plan the construction of energy facilities** (built by customers, for the production of electricity using renewable energy sources) **in accordance with environmental standards** in the local community and planning documents.²⁸⁷

The development of decentralized energy production by customer-producers should, from the point of view of environmental protection, energy security, energy efficiency, as well as increasing the share of energy produced from renewable energy sources, be an important and permanent part of Montenegro's energy policy, hence, where energy in total production should meet the needs and capabilities of Montenegro. In the long run, this type of production could even prove necessary.

Customer-producers are individuals, groups of individuals, households or agricultural holdings that can act in an organized manner, and who are at the same time buyers and producers of electricity, in small in-

²⁸⁶ Definition of the term customer-producer, harmonized with Directive 2018/2001 on the promotion of the use of energy from renewable sources. The draft law amends Art. 96, in order to create conditions for a larger volume of electricity production from renewable sources or highly efficient cogeneration for one's own needs and the exchange of electricity at the connection point.

²⁸⁷ In this way, the environment in each specific local community is preserved. With the harmony of economy and ecology, other positive effects of these investments are possible, especially when it comes to solar power plants (employment growth and additional savings in energy consumption). Read more in: UNDP, Possibilities of energy exchange at the point of connection in Montenegro, the current situation and recommendations for improving the environment (author: Engineer Dalibaro Muratović), Podgorica, 27 June 2019.

stallations located not far from houses or on residential or commercial buildings (e.g. **mini wind farms, photovoltaic panels, solar collectors**, etc.). Small enterprises, social institutions and local government bodies can also be included in customer–producers.

The advantages of energy produced by customer–producers are reflected in lower costs of energy transmission and distribution, better utilization of local energy sources, as well as in the professional activation of the local population and the development of local entrepreneurship. Having in mind the current trends, it is to be expected that, in the near future and for certain technologies perhaps even at this moment, electricity can be produced in this way without any incentives²⁸⁸. Considering that in Montenegro, customer–producers are encouraged in the first phase, it would be desirable to perform categorization of customer installations/producers, depending on the installed capacity of the power plant for one's own needs (plants up to 10.8 kW – small commercial customers and households; plants up to 30 kW – small commercial customers; and plants over 30 kW – commercial and industrial customers), where the incentive model would be differentiated in favour of the customers of producers with smaller plants.²⁸⁹

4.2. Incentive measures for efficient energy use

Energy efficiency is considered to be an increase in the degree of energy efficiency in final consumption.²⁹⁰

Improving energy efficiency means increasing the efficiency of energy use in final consumption as a result of technological changes, changes in management or changes in the behaviour of energy consumers. Energy saving is the reduction of energy consumption determined by measuring or estimating consumption before and after the application of measures to improve energy efficiency, with harmonization with external conditions that affect energy consumption.

Energy efficiency measures include: adoption of a set of regulations and their full implementation, economic measures (taxes, subsidies, tariffs), research and development (new technologies and behaviour change), information and education of energy consumers, data production (statistics, including coordination of data producers) and the development of data calculation methodology in accordance with international standards.

The energy efficiency measures, in terms of the Law on Efficient Use of Energy are:

- actions and activities to achieve energy efficiency improvements that can be verified, measured or evaluated;
- production of electricity or heat using renewable energy sources, provided that the produced electricity or heat is used for one's own needs;
- educational or informative activities in order to raise the awareness of legal and natural persons about the importance, effects and opportunities for improving energy efficiency.

Incentive measures in the energy sector in Montenegro are mostly reduced to energy efficiency (EE) measures. They are divided by sectors, as follows:²⁹¹

1. Horizontal EE measures
2. EE measures in buildings

²⁸⁸ Op.cit. p. 5.

²⁸⁹ Op.cit. p. 9.

²⁹⁰ Law on Efficient Energy Use ("Official Gazette of Montenegro" Nos. 57/14, 3/15 and 25/19).

²⁹¹ The Fourth Action Plan of Energy Efficiency of Montenegro for the period 2019–2021.

3. EE measures for households
4. EE measures for the public sector
5. EE measures for the commercial services sector and the industrial sector
6. EE measures for the transport sector
7. EE measures on the energy supply side (transformation, transmission and distribution)

Within the Fourth Action Plan for Energy Efficiency of Montenegro for the period 2019–2021 (4APEE), a detailed overview of the type and structure of these measures is given, with their status, amount of investments and competent institutions for their implementation, while the continuation of this document presents an aggregate overview of these measures.

4.2.1. Horizontal EE measures

The implementation of certain EE measures will result in energy savings and other benefits in several sectors of final energy consumption. The effects of the implementation of horizontal measures cannot be assessed separately, bearing in mind that the same results of different activities will be implemented in several sectors of energy consumption. An overview of the planned measures and financial resources necessary for their implementation is given in the table below.

Table 36. Horizontal EE measures (€)²⁹²

Structure	Budget funds	Donation funds	Other sources	Total
Development of the basic legislative, regulatory and institutional framework for EE in Montenegro	10,000	20,000		30,000
Adoption of planning documents for EE	10,000	110,000		120,000
Establishing a sustainable model of financing energy efficiency projects through the Eco Fund	10,000	50,000	1,150,000	1,210,000
Information campaign to improve EE	30,000	30,000		60,000
Strengthening education and conducting professional training in the field of EE	30,000			30,000
Introduction of a regulatory framework for eco-design of products that affect energy consumption	10,000	20,000		30,000
Total	100,000	230,000	1,150,000	1,480,000

4.2.2. EE measures in buildings

With the implementation of EE measures in buildings, in the period 2019–2021, it is planned to save total energy of an amount of 84.5 ktoe. An overview of the planned measures and financial resources necessary for their implementation is given in the table below.

²⁹² The Fourth Action Plan of Energy Efficiency of Montenegro for the period 2019–2021.

Table 37. EE measures in buildings (€)²⁹³

Structure	Budget funds	Donation funds	Total
Development and implementation of a regulatory framework for EE buildings	10,000	550,000	560,000
Conducting regular energy audits of heating and air conditioning systems	10,000		10,000
Certification of energy performance of buildings	20,000		20,000
Preparation of a Study for the Improvement of EE Buildings in Montenegro	20,000		20,000
Total	60,000	550,000	610,000

4.2.3. EE measures for households

With the implementation of EE measures for households, in the period 2019–2021, it is planned to save total energy of an amount of 5.35 ktoe. An overview of the planned measures and financial resources necessary for their implementation is given in the table below.

Table 38. EE measures for households (€)²⁹⁴

Structure	Budget funds	Donation funds	Total
Energy labelling of household appliances	10,000	550,000	560,000
Financial support to individuals for EE investments	10,000		10,000
Total	20,000	550,000	570,000

4.2.4. EE measures for the public sector

With the implementation of EE measures for the public sector, in the period 2019–2022, it is planned to save total energy in the amount of 9.82 ktoe. An overview of the planned measures and financial resources necessary for their implementation is given in the table below.

²⁹³ Ibid.

²⁹⁴ Ibid.

Table 39. EE measures for the public sector (€)²⁹⁵

Structure	Budget funds	Donation funds	Credit funds	Total
Establishment and application of EE criteria in the public procurement of goods, vehicles and services, as well as in the purchasing and leasing of buildings	10,000			10,000
Improving the energy performance of buildings in the public sector	10,000		12,000,000	12,010,000
Implementation of EE improvement measures in public utility companies of local self-governments and other public companies (demand side)	10,000	110,000		120,000
Establishment and development of energy management in the public sector	25,000	220,000	1,100,000	1,345,000
Total	55,000	330,000	13,100,000	13,485,000

4.2.5. EE measures for the commercial services sector and the industrial sector

The implementation of EE measures for the commercial services sector and the industrial sector, in the period 2019–2021, leads to energy savings that could not be estimated. An overview of the planned measures and financial resources necessary for their implementation is given in the table below.

Table 40. EE measures for the commercial services sector and the industrial sector (€)²⁹⁶

Structure	Budget funds	Other sources	Total
Establishment of financial support mechanisms for EE investments	10,000	15,000	25,000
Total	10,000	15,000	25,000

4.2.6. EE measures for the transport sector

The implementation of EE measures for the transport sector, in the period 2019–2021, leads to energy savings that could not be estimated. An overview of the planned measures and financial resources necessary for their implementation is given in the table below.

²⁹⁵ Ibid.

²⁹⁶ Ibid.

Table 41. EE measures for the transport sector (€)²⁹⁷

Structure	Budget funds	Donation funds	Total
Implementation of projects for the development of sustainable transport	10,000	240,000	250,000
Infrastructure measures in the transport sector with the effects of energy savings	20,000		20,000
Total	30,000	240,000	270,000

4.2.7. EE measures on the energy supply side (transformation, transmission and distribution)

The implementation of EE measures on the energy supply side, in the period 2019–2021, leads to energy savings that could not be fully estimated. An overview of the planned measures and financial resources necessary for their implementation is given in the table below.

Table 42. EE measures on the energy supply side (€)²⁹⁸

Structure	Budget funds	Donation funds	Other sources	Total
Improving efficiency by revitalizing HPP Piva Phase II			9,171,217	9,171,217
Improving efficiency by revitalizing HPP Perućica Phase II			22,199,539	22,199,539
Improving efficiency by installing energy efficient block transformers T1-T5 – HPP Perućica			2,272,725	2,272,725
Improving efficiency through the reconstruction of small hydro-electric power plants (Rijeka Crnojevića, Podgor, Šavnik, Mušovića rijeka and Lijeva rijeka)			3,260,000	3,260,000
Development of the transmission network and improvement of its operation			66,848,000	66,848,000
Development of the distribution network and improvement of its exploitation			90,134,715	90,134,715
Development of decentralized energy production by customer-producers	10,000	85,000		95,000
Total	10,000	85,000	193,886,196	193,981,196

The total funds planned for investments in EE measures, in the period 2019–2021, is determined at the amount of €210,421,196.

²⁹⁷ Ibid.

²⁹⁸ Ibid.

5. Concluding assessments and recommendations for a roadmap for strengthening green business in the energy sector

The proposal of measures to encourage green business in the energy sector (a roadmap) is given in the last chapter of the study, integrally for all sectors.

3. TOURISM

Tourism is an extremely important component of the national economy of Montenegro and one of the most important activities, which contains significant potential for economic growth and development, with multiple multiplicative effects. Given the existing potentials, especially natural ones, and the current level of development of the tourist industry, as well as the strategic direction of Montenegro's development, tourism is one of the most promising activities in Montenegro's future economic development. The development of tourism, as a strategic priority for Montenegro's development, is based on the available resources, as well as on the fact that tourism is an activity that generates the development of other, complementary activities, such as transport, trade, banking, agriculture, construction and others.

One of the basic functions of tourism is realized through the direct and indirect impact on GDP growth, encouraging the development of complementary activities, employment/job creation, raising living standards, etc. At the same time, the development of elite tourism, investment of foreign capital in infrastructure, an intensive promotional campaign on foreign markets and the entry of global brands into our market have contributed to positive trends in Montenegro's tourist industry.

As a driver of sustainable development, tourism contributes to the aims of sustainable development, improving the quality of life, preserving nature, the diversity of cultural heritage and the fight against climate change. Alignment of the development of tourism with EU policies is one of the basic steps on the path of Montenegro's accession to the European Union.

1. Overview of basic indicators in the tourist sector

According to available data for 2018, Montenegro has 382 facilities for **collective accommodation** of tourists. In these facilities there are 19,502 accommodation units, of which the largest number is for rooms (15,994), then apartments (2,585) and then campsites (923). There are 46,553 beds in these accommodation units, which is an increase of about 2% compared to 2017²⁹⁹.

Regarding **individual accommodation**, the latest available data is for 2016, according to which there are 49,910 accommodation units in individual accommodation. The largest number is for rooms (47,316), followed by apartments (2,309) and then campsites (285)³⁰⁰. The following table shows the movement of the number of tourists (domestic and foreign), as well as the number of overnight stays in the period 2015–2019.

As can be seen in the tabular overview, in the past five years, Montenegro has recorded constant and intensive growth, both in the number of tourists and the number of overnight stays. The number of tourists in

299 Directorate of Statistics – MONSTAT, Tourism, Accommodation, <https://www.monstat.org/cg/page.php?id=45&pageid=45>.

300 Ibid.

the last three years has a double-digit annual percentage growth rate, and the growth in 2019 compared to 2018 is as much as 20%. In the structure of total tourists, about 95% are foreigners, while the rest are domestic tourists. Tourists from European countries make up about 91% of the total number of foreign tourists, and most of them were from Serbia, the Russian Federation and Bosnia and Herzegovina. The number of overnight stays also recorded a noticeable increase in the total observed period. The average number of nights spent by foreign tourists is slightly higher than domestic ones and amounts to about 5.5 nights per registered tourist.

Table 43. Movement of the number of tourists and the number of overnight stays 2015–2019

Structure	2015	2016	2017	2018	2019
Domestic tourists	153,185	151,696	122,797	128,053	135,592
Foreign tourists	1,559,924	1,662,121	1,877,212	2,076,803	2,509,625
Total tourists³⁰¹	1,713,109	1,813,817	2,000,009	2,204,856	2,645,217
Annual growth rate of number of tourists		5.88%	10.27%	10.24%	19.97%
Overnight stays, domestic tourists	747,576	721,530	483,184	486,524	522,382
Overnight stays, foreign tourists	10,307,371	10,528,475	11,470,132	12,443,810	13,933,538
Total (over)nights³⁰²	11,054,947	11,250,005	11,953,316	12,930,334	14,455,920
Annual growth rate of the number of overnight stays		1.76%	6.25%	8.17%	11.80%
Average number of nights spent by domestic tourists	4.88	4.76	3.93	3.80	3.85
Average number of nights spent by foreign tourists	6.61	6.33	6.11	5.99	5.55
Average number of tourist nights ³⁰³	6.45	6.20	5.98	5.86	5.46

In addition to classic tourism, which involves the use of accommodation facilities, it is important to mention two other categories of increasingly present forms of tourism in Montenegro: cruises of foreign ships, and nautical tourism. The following table shows the movement of the number of passengers and the number of cruises/arrivals of ships in the period 2015–2019.

Table 44. Movement of the number of passengers and the number of cruises by foreign ships in the period 2015–2019³⁰⁴

Structure	2015	2016	2017	2018	2019
Passengers	441,513	540,445	532,337	506,198	649,038
Annual growth rate of the number of passengers		22.41%	–1.50%	–4.91%	28.22%
Trips	411	430	480	424	490
Annual growth rate of the number of trips		4.62%	11.63%	–11.67%	15.57%

301 Directorate of Statistics – MONSTAT, Tourism, Arrivals and Nights, <https://www.monstat.org/cg/page.php?id=44&pageid=44>.

302 Ibid.

303 Author's calculations.

304 Directorate of Statistics – MONSTAT, Tourism, Cruises of Foreign Ships, <https://www.monstat.org/cg/page.php?id=588&pageid=588>.

The movement of the number of passengers arriving in Montenegro by foreign ships, observed in the past five years, shows certain irregularities, but it is obvious that this number is increasing, and the increase for the total observed period was about 50%. The number of cruises of foreign ships also increased in the same period, somewhat more moderately, at a level of about 20%.

The following table shows the movement of the number of arrivals of foreign vessels and the number of visitors in the category of nautical tourism, in the period 2015–2019.

Table 45. Movement of the number of arrivals of foreign vessels and the number of visitors in the category of nautical tourism in the period 2015–2019³⁰⁵

Structure	2015	2016	2017	2018	2019
Arrival of foreign vessels	4,018	4,384	4,598	4,710	4,775
Annual growth rate of foreign vessel arrivals		9.11%	4.88%	2.44%	1.38%
Number of visitors	20,859	21,554	23,001	27,685	28,562
Annual growth rate of the number of visitors		3.33%	6.71%	20.36%	3.17%

The number of arrivals of foreign vessels, as well as the number of visitors in the category of nautical tourism, recorded an increase in the total observed period, so Montenegro is increasingly a recognized destination that is adequately enabling the development of this type of tourism.

As already pointed out, tourism is a very important segment of Montenegro's national economy, but at the same time a sector whose importance and overall impact cannot be precisely quantified, precisely because of its connection with all aspects of society, as well as its direct and indirect impact on GDP growth.

Tourism, or more precisely the sector **Accommodation and Food Services** from year to year is occupying an increasingly important place in the overall economic development of Montenegro. From the aspect of participation in GDP, the contribution of tourism is growing, as its share within total GDP grows – that share in 2008 was 5.2%, in 2014 8.2%, while in 2018 the share of tourism within GDP was 8.8%.

The indirect contribution of tourism is much higher, although it is very difficult to quantify. Namely, an additional importance of tourism is its high indirect contribution, more widely generated through other complementary activities. It is for these reasons that most countries are seeking to make satellite accounts in tourism, which are a set of definitions and classifications integrated into TSA tables (satellite accounts), which provide an overview of the **overall economic effects of tourism**³⁰⁶. In any case, it is indisputable that tourism contributes to the overall economy of Montenegro much more than its direct share within GDP, especially since there is still room for calculation of the non-covered economy in this sector, although in the last few years progress has been made in calculating the "grey" economy of certain sectors, including tourism.

Data on revenues and expenditures from tourism in the balance of payments are presented within the position "Travel" in the Services sub-account. This position covers the total consumption of goods and services by non-residents (foreign tourists) during their stay in a country as a tourist of less than one year.

In the balance of payments of Montenegro, tourist consumption is recorded on the current account, on the

³⁰⁵ Directorate for Statistics – MONSTAT, Tourism, Nautical Tourism, <https://www.monstat.org/cg/page.php?id=590&pageid=590>

³⁰⁶ Bearing in mind the importance of tourism for the overall economy and strategic priority, for the Government of Montenegro, a pilot compilation of TSA with data for 2009 was done. Thus, according to these calculations, the GDP from tourist activities through the TSA accounted for about 10% of total GDP in 2009, compared to the officially registered 6.2% of GDP.

sub-account of services under the position “Travel – tourism”, which includes revenues and expenditures from international tourism. Bearing in mind that Montenegro is a tourist-receptive country, the income from travel is higher than expenditure, i.e. consumption by foreign tourists in Montenegro is higher than the consumption of Montenegrin residents abroad.

Data on revenues from “Travel – tourism” is supplemented by the **estimated revenues from tourism**. The estimation of income from tourism is done on the basis of the number of overnight stays of foreign tourists/ MONSTAT data and the estimated average daily consumption that the CBM does on the basis of research, as well as the estimation of unregistered consumption. The source of data on travel and tourism expenditures is international payment transactions. It is important to note that the coverage of the position “Travel – tourism”, in the balance of payments is much broader than the concept of tourism, which is covered by the sector – Accommodation and Food Services³⁰⁷.

The trends in revenues and expenditures from tourism in the period 2015–2019 are shown in the following table.

Table 46. Balance of payments, revenues and expenditures from tourism, 2015–2019 (€ thousands)³⁰⁸

Structure	2015	2016	2017	2018	2019
Revenues from tourism	813,332	835,744	921,737	1,001,084	1,098,285
Expenditures from tourism	40,802	60,115	59,345	58,047	52,028
Tourism balance of payments	772,530	775,629	862,392	943,037	1,046,257

It is obvious that the growth trend of tourism revenues is constant in the overall observed period. In 2018, Montenegro exceeded the figure of one billion euros in tourist revenues for the first time, which has a positive effect on the country's balance of payments.

As emphasized above, one of the important functions of the tourist sector is realized in the field of employment, i.e. the generation of new jobs, which takes place within the basic tourist sector – Accommodation and Food Services, as well as within other ancillary activities. According to available statistical data for 2019³⁰⁹, about 20,600 people were employed in this sector, which is 8.5% of the total number of employees in Montenegro. Of course, the number of employees who are indirectly dependent on activities in the field of tourism and who are registered within other activities is far higher.

According to estimates by the **World Tourism and Travel Organization (WTTO)**, the contribution of the tourism and travel sector to the overall Montenegrin economy in 2019 is as high as **31.2%** of GDP³¹⁰, while the real GDP growth rate of tourism and travel in the same year was **6.1%**, almost twice as much as the rate the country's GDP grew. It directly and indirectly **creates 66,900 jobs**, about a third of the total registered employment.

307 Central Bank of Montenegro, Balance of Payments, <https://www.cbcbg.me/me/statistika/statisticki-podaci/ekonomski-odnosi-sa-inostranstvom/platni-bilans>.

308 Ibid.

309 Directorate for Statistics – MONSTAT, Employment, Labour Force Survey, <https://www.monstat.org/cg/page.php?id=1671&pageid=22>.

310 Total T&T GDP = €1,580.9 million in 2019, of which the impact of foreign visitors is as much as €1,132 million, or 47.7% of total exports (<https://wtcc.org/en-gb/Research/Economic-Impact>, Montenegro).

2. Strategic framework

2.1. Review of the “Tourism Development Strategy until 2020”

The “Tourism Development Strategy of Montenegro until 2020” was adopted in December 2008 and was a practically innovated Master Plan for Tourism Development from 2001. The Tourism Development Strategy is adopted by the government for a period of 10 years (Article 110 of the Law on Tourism and Hospitality).

The Tourism Development Strategy recognizes numerous advantages and opportunities for the further development of Montenegrin tourism, the most important of which are³¹¹: a favourable climate and geographical position, the diversity of its offer in a small area, natural values and beauty, cultural and historical heritage, hospitality of the local population, authentic food and drink, favourable environment for investors, political stability and good relations with neighbouring countries, an attractive new destination close to the most important European capitals, growing international demand for tourism oriented towards nature and new (unused) areas.

In addition to the obvious advantages, certain weaknesses were registered³¹²: a non-integrated tourist offer, a lack of staff in terms of quantity and qualifications, a lack of awareness of the importance of tourism among a certain part of the population, insufficient quality of services, pronounced seasonality, a significant grey market share, unplanned construction, inadequate accompanying infrastructure, insufficient implementation of private–public partnerships, insufficient initiative in tourism and insufficient areas with the status of protected areas.

The strategy defines the **strategic aim of tourist development in Montenegro** – “By applying the principles and aims of sustainable development, Montenegro will create a strong position as a global high-quality tourist destination; tourism will provide enough jobs and growth of living standards for the population of Montenegro, and the state will generate income in a stable and reliable way.”³¹³

In order to achieve the set strategic aim, the following **operational aims** have been defined:

1. Creation of the necessary tourist and accompanying infrastructure in the direction of achieving the strategic aim – for the realization of this operational aim, implementation of the following measures is envisaged: improving the accessibility of Montenegro; improving the communal infrastructure; developing new high-quality accommodation capacities; increasing the existing accommodation capacities in the tourist sector; improving the harmony between the architecture and the surrounding natural and cultural environment; and establishing a “clean image” of Montenegro.
2. Montenegro forms a special unique sales offer – the realization of this operational aim implies the establishment of effective marketing structures, promotion of regional clusters to strengthen the tourist potential in all the regions and sub-regions of Montenegro and implementation of the National Strategy for Sustainable Tourism in Nature Protection.
3. Montenegro is known and accepted as a “year-round” tourist destination – the realization of this aim implies the need to diversify hotel offers, improve the active-recreational and active capacities for vacations, the development and improvement of specific tourist products and the establishment, promotion and marketing of tourist attractions.

311 Tourism Development Strategy of Montenegro until 2020.

312 Ibid.

313 Ibid.

4. The institutional and legal framework meets the requirements for the successful and sustainable development of tourism – for the realization of this operational aim, it is planned to strengthen tourist organizations at the national/regional/local levels, strengthen inspection systems for their more effective work, establish and operate information and quality management systems and improve the legal basis for tourist development.
5. The local population is increasingly involved in the tourism industry (“internal marketing”) – for the realization of this operational goal, implementation of the following measures is envisaged: development of an awareness of the importance of tourism as the main pillar of development of Montenegro, promoting entrepreneurship in the tourist sector and connecting the tourist sector with other sectors of the local economy.

2.2. Review of “Development Directions of Montenegro 2018–2021”

In the document “Development Directions of Montenegro 2018–2021” as an umbrella development implementation document, in order to achieve the strategic development aim – “increasing the quality of life in the long run”, tourism is recognized as one of the four priority sectors.

Regarding tourism, it was emphasized that it is necessary to intensify the implementation of measures and activities in the fields of³¹⁴:

- Tax and other incentives for new investments, in order to attract investment, through permanent improvement of the business environment, to encourage investment in those types of facilities that correlate with Montenegro’s vision as a high-quality tourist destination. The activities undertaken in this area so far have already contributed to the high level of investment in this sector. However, certain problems and shortcomings in the implementation of investment projects indicate the fact that there is room for further improvement in this area.
- Adoption of strategic documents, with action plans, and adoption of incentive programmes in the field of tourism, which will create conditions for diversification of the tourist product, tourist valorization of the natural wealth and cultural and historical heritage, then development of tourist products for targeted/selected groups of tourists, the creation and promotion of authentic tourist attractions, revitalization of cultural and other facilities, etc. Also, it is necessary to work on the implementation of projects related to the development of nature-based tourism, connecting tourism and agriculture, improving the event and congress segment of the tourist offer, the offer of the national parks of Montenegro, as well as the development of rural, cultural, health, nautical, sports-recreational, adventure, religious and other forms of tourism.
- Improving legislation and, in that sense, defining solutions that will enable more intensive development of underdeveloped areas, with emphasis on the northern part of Montenegro, with a broader incentive policy for hotel business development, in order to develop the hotel industry, as the most important segment of the tourist offer, in an adequate way in the coming period with the introduction of new business management models.
- Creating a model of incentives for air transport, in order to improve Montenegro’s accessibility, with the improvement of the transport infrastructure within the country, i.e. activities aimed at connecting our destination as efficiently as possible through all types of transport, primarily by air, as well as activities in terms of visa liberalization and travel relief for organized tourist groups.
- Intensifying marketing activities aimed at new, as well as distant, tourist markets: among other things,

314 “Development Directions of Montenegro 2018–2021”, Ministry of Finance, December 2017.

the implementation of projects aimed at attracting tourists from as many countries around the world as possible to reduce dependence on fewer markets. Following modern trends in tourism, the requirements and needs of tourists, in cooperation with the tourist industry, to form a quality tourist offer that will be attractive to a wide range of visitors. Also, in terms of attracting more tourists from Western and Northern Europe, as well as from new markets, implementing activities to promote our product, independently and in cooperation with tourist representatives from the region, as part of the markets of China, Japan, Brazil and India, as well as other distant markets.

All the above activities, including measures for their implementation, are aimed at forming a high-quality, diverse and year-round tourist offer, which is in line with the strategic framework for tourist development in Montenegro. With continuous improvement of the tourist product, both from a quantitative and qualitative aspect, Montenegro is becoming an attractive destination on the international tourist map, while domestically the growing share of tourism within GDP is expected, primarily having in mind the multiplier effects of tourism on others economic branches.

2.3. Review of the “Economic Reform Programme for Montenegro 2020–2022”

The Economic Reform Programme (ERP) identifies in detail the obstacles to the competitiveness, economic growth and development of Montenegro in the medium term. In this context, an adequate set of reform measures forms a special chapter in this Programme and is designed to, in response to the recommendations of the European Commission, create scope for overcoming these obstacles and also prevent their emergence in the medium and long term.

In order to minimize the obstacles to faster development of tourism, a reform measure has been proposed – **“diversification of the tourist product”**, which is a continuation of activities started in the previous period. The implementation of this measure contributes to the implementation of the sixth EC recommendation, as it creates the preconditions for increasing participation in the labour market, especially a large number of young people and women, as well as low-skilled staff³¹⁵.

The implementation of this reform measure achieves one of the basic goals, which is to extend the duration of the main tourist season, which will encourage greater utilization of accommodation capacity while creating the preconditions for the continuous creation of new jobs. Also, this measure should contribute to raising awareness of sustainable environmental development (because, to the greatest extent, it is focused on the development of tourist products based on nature), primarily through the tourist valorization of natural resources and cultural and historical heritage.

Activities within this reform measure are carried out in compliance with the **principles and standards of sustainability (from economic, environmental, cultural and social aspects)**, in order to ensure the optimal use of environmental resources, which is a key element of tourist development. In this way, the preconditions are provided so that the implementation of activities within the measure may take place with a minimal negative impact on the environment.

At the same time, the implementation of activities within the proposed measure raises the level of competitiveness of Montenegro as a tourist destination, not only in the region but also more broadly, because it creates a product that is specific/unique in nature, i.e. it allows tourists a very diverse experience in a rela-

315 Economic Reform Programme for Montenegro 2020–2022.

tively short period of time. This measure is realized through activities on the development of nature-oriented tourism, cultural, rural, health, nautical, sports and other types of tourism, i.e. through the development of tourist products for selected/targeted groups of tourists, then by creating unique products and promoting authentic tourist attractions, with the permanent raising of service quality levels.

The activities within the defined reform measure are aimed at improving the existing and developing new features of the **tourist product** – based on nature, with the tourist valorization of all the existing potentials in the north of Montenegro and its unification with the offer of the coast into a single whole.

Given that tourism has multiple effects on other sectors, a defined reform measure should contribute to the development of supply and sectors that are directly and indirectly related to tourism (agriculture, trade, transport...). In this way, it should also contribute to increasing the income of the domicile population, given the possibility of them performing tourism as a supplementary activity. Also, the development of new products creates a number of new jobs, which increases the employment of young people and reduces migratory movements from the north to the south of the country.

The activities within the mentioned reform measure are implemented over a multi-annual period, because they consist of the following **sub-projects**:

- "Hiking and biking";
- "Panoramic roads of Montenegro";
- "All the wonders of Montenegro"; and
- "Incentive programme" (consisting of several subroutines).³¹⁶

After completion of all the projects within the defined measure, the tourist offer – primarily in the North of Montenegro – will be richer, with more specific tourist products that will be the basis for defining multi-day tourist itineraries. Longer stays by tourists require their accommodation, which further means that in this way a basis is created for increasing the number of overnight stays and income (as basic indicators of tourist traffic). In this way, these activities contribute to the realization of the strategic goal, which is to provide offers to tourists throughout the year.

The bearers of all the activities under this measure are primarily small and medium-sized enterprises (which otherwise make up the majority of companies in Montenegro's tourist sector), and whose business is stimulated by the implementation of these project activities – the MSDT, in cooperation with the NTO, finances the creation of infrastructure as a basis for implementation projects or co-finances its implementation (depending on the type of project).

For the implementation of activities within this reform measure, the Budget for 2020 plans the amount of €520,000 (€70,000 for goods and services for activities within the sub-projects "Hiking and cycling", "Panoramic routes" and "All the wonders of Montenegro") and €450,000 for co-financing of projects within the activities "Programme of incentive measures in the field of tourism". The measure will be financed in the same way during 2021 and 2022³¹⁷.

³¹⁶ Ibid.

³¹⁷ Ibid.

2.4. Review of the Rural Tourism Development Programme with Action Plan until 2021

Rural tourism is increasingly defined as an economic, social and environmental priority. Sustainable rural tourism is one of the key sectors that carries a strong potential for diversification of the rural economy. Despite its indisputable and original natural wealth, Montenegro still faces challenges in achieving a satisfactory degree of diversification of the rural economy. As a key catalyst, rural tourism is expected to activate differentiation in the rural economy, launching new business initiatives and establishing synergies between the existing agricultural sector and tourism, while ensuring a balance between economic, socio-cultural and environmental sustainability.

In connection with the above, the initial commitment of the “Rural Tourism Development Programme with Action Plan until 2021” (RTDP 2021) is a rural area which, as underutilized potential, should be put in the function of Montenegro’s local communities and rural areas. The valorization of the same is possible only with the active and intensive participation of various entities in the field of rural tourism, including the well-designed development of entrepreneurship in this area, and a developed **system of incentives** at the national, regional and local levels. Ensuring the global recognition of Montenegro as a developed destination in the field of rural tourism is contained in the vision of the development of this type of tourism in Montenegro.

In connection with the initial commitment of RTDP 2021, the strategic aim of the development of rural tourism in Montenegro has been defined – **the development of a diversified and authentic rural tourist offer**. The answer to this goal should be to improve the living standards of the population in rural areas and stop the evident and intensive depopulation of rural areas.

In accordance with RTDP 21, the realization of the stated strategic aim should be achieved through realization of the following operational aims³¹⁸:

1. Improving the system of rural tourist experiences and integration of the offer in order to establish an integrated value chain in rural tourism on the territory of Montenegro;
2. Raising the level of awareness and information of tourists about the offer in the field of rural tourism of Montenegro in order to position rural tourism on the market, i.e. recognizing a new brand and positioning Montenegro as a new rural destination;
3. Training and activation of rural communities, entrepreneurs and companies to improve the value of rural products, through active participation in the management of sustainable development of their destinations, which implies specific knowledge and synergy in terms of creating a tourist product.

The products to be put in the function of rural tourism development in Montenegro can be divided **into three key areas**:

- Agro-tourism;
- Tourism based on nature activities; and
- Products related to rural cultural heritage.

318 Rural Tourism Development Programme with Action Plan until 2021, Ministry of Sustainable Development and Tourism, 2019.

The key recommendations given in RTDP 2021 for the development of rural tourism in Montenegro in the near future are³¹⁹:

- Create systemic preconditions for the development of rural tourism, at both the national and local levels in order to create opportunities for the development of private initiatives and complete the value chain of products in the field of rural tourism;
- Identify the offer in the field of rural tourism and form a unique database of rural tourism service providers at the national and local levels;
- Simplify the procedures for the registration of entities for performing activities in the field of rural tourism;
- Identify and reduce business barriers and the presence of the grey economy in this area at the national and local levels;
- Identify measures to encourage the development of rural tourism at the national and local levels;
- Identify the potentials for synergy between rural and cultural tourism;
- Define education measures among current and future providers of services in the field of rural tourism and raise awareness of its importance;
- Encourage coordination and networking of different entities in the planning and promotion of rural tourist products.

Regarding programmes to support the development of rural tourism, one of the recommendations in RTDP 2021 is that local governments should take a more active role in determining certain incentive measures – e.g. grants, lending to entities with an affinity for rural tourism, simplification and shortening of the duration of the registration process, providing incentives to keep young people in rural areas, timely institutional support, etc.

At the same time, the possible form of a programme to support the development of rural tourism in cooperation with the Ministry of Culture was pointed out in order to provide incentives for the population traditionally engaged in old crafts and handicrafts, in order to preserve tradition, while enriching the offer of rural households³²⁰.

It is indicative that in the PRRT 2021, within the SWOT analysis, among other weaknesses of rural tourism in Montenegro, the lack of information of the local population regarding incentive measures was recognized, as well as the lack of institutional support to the population in the process of applying for incentives and household registration.

3. Development of low-carbon tourism in Montenegro

In recent years, the Montenegrin tourist sector has experienced rapid development with an increase in the number of visitors and investments, becoming the main and most dynamic economic sector. According to the usual business scenario, **during 2020, greenhouse gas emissions in the tourist sector will in-**

³¹⁹ Ibid.

³²⁰ The proposal is to include crafts in the MIDAS public call "Diversification of the farm and business development". At the same time, it is recommended that other activities that are part of the traditional lifestyle and work (collecting hay, horseback riding, collecting forest fruits, distilling brandy, picking fruit, milking cows, making cheese, preparing traditional dishes, fishing on the lake or sea, going up to the katuns, mowing, harvesting, religious customs, masquerade balls) should be preserved and supported through support, training and promotion.

crease to 40% above the 1990 baseline value. As a result, the Montenegrin government has decided to curb emissions from the sector and continue low-carbon development³²¹.

In cooperation with UNDP and the Ministry of Sustainable Development and Tourism, an innovative project “Development of Low-Carbon Tourism in Montenegro”, funded by the GEF³²², was implemented. The project was aimed at contributing to the reduction of harmful gas emissions (primarily CO₂) in the tourist sector and to significantly reduce the negative impact on the environment. This project supported 32 investment projects involving EE measures using RES, while 30 hotels received a green certificate and thus contributed to reducing CO₂ emissions, while improving public awareness of nature protection and climate change. The project helped establish an ecological fund that supports the implementation of sustainable projects, on the principle of “the polluter pays”³²³.

The aim of the project was to support the transformation of the tourist offer and strengthen Montenegro’s international position **as a green destination through**³²⁴:

- Increasing the level of energy efficiency and increasing “greenfield” investments in tourism;
- Promoting sustainable spatial planning and development of sustainable modes of transport;
- Introduction of innovative financial mechanisms for mitigation of unavoidable emissions and generation of additional revenues for introduction of measures to mitigate the effects of climate change and adaptation to them.

The activities supported by this project are as follows³²⁵:

- Creating a legal and strategic framework for the development of low-carbon tourism that will encourage an environmentally friendly tourist offer from the country;
- Introduction of environmental certificates for accommodation facilities in order to improve the quality of services and encourage efficient use of resources;
- Establishment of a system for monitoring GHG emissions from the tourist sector and minimizing the carbon footprint with the aim of reducing GHG emissions from the tourist sector;
- Support for the development of a sustainable transport infrastructure and development of the Polycentric Plan for Sustainable Urban Mobility for the Bay of Kotor and Cetinje, which will develop a more environmentally friendly transport system for the area;
- Establishment of an ecological fund that will finance innovative tourist projects, which actively contribute to climate change mitigation and adaptation, and support the introduction of emission-reduction programmes;
- Raising public awareness of the contribution that sustainable tourism can make to overall development and be a catalyst for environmental protection. Promoting environmental awareness through pop culture – the five largest festivals in Montenegro since 2018 have become “green” and include participants in a large number of environmental programmes.

Within the project, the following results were **achieved**:

- 32 investment projects that apply innovative technologies that will help reduce CO₂ emissions in the tourist sector are supported. The total value of investments in supported projects is around €10 million and will result in a reduction of CO₂ emissions by 15,343 kt;

321 Second Updated Biennial Report for Montenegro (April 2019), p. 19.

322 GEF – global environment facility.

323 UNDP Montenegro, <https://www.me.undp.org/content/montenegro/sr/home.html>.

324 Ibid.

325 Ibid.

- by the end of 2019, 30 hotels in Montenegro received an eco-certificate (Eco-label and Travel-life) for successful environmental business;
- The project supported the introduction of several voluntary carbon footprint compensation schemes in the tourist industry;
- Technical assistance was provided for the establishment of the Eco-Fund, which will finance future sustainable tourist projects;
- Using the influence of pop culture on education and raising public awareness about climate change and the importance of environmental protection, the project has realized the “greening” of all major music and film festivals in the country.

Through public calls, the following **projects** were supported:

- Measures in the field of energy efficiency** (introduction of energy-efficient cooling, heating and ventilation systems, introduction of management systems and automation of buildings (smart buildings) in order to optimize energy consumption in the buildings);
- Improving the energy efficiency of public lighting in tourist zones** (outdoor and indoor lighting system (streets, parking lots and other public areas), replacement of classic light bulbs with LED bulbs, replacement of fluorescent lamps with LED lamps);
- Renewable energy sources** (replacement of conventional heating systems with heat pumps, introduction of solar water heating systems, installation of a network of photovoltaic systems in public areas, such as swimming pools, sports centres, tourist information centres);
- Sustainable transport** (promotion and introduction of sustainable modes of transport: replacement of the use of fossil fuels in public transport with renewable energy sources, such as solar energy and biofuels (e.g. biodiesel); replacement of old commercial vehicles such as buses, trucks and ships, and the introduction of new vehicles that meet EURO VI standards or similar, the introduction of solar-powered boats and catamarans, construction of paths for cyclists, the introduction of electric vehicles, landscaping of public areas, afforestation of public areas, parks; and
- Other projects that actively contribute to mitigating the effects of climate change in the tourist sector, i.e. reducing greenhouse gas emissions³²⁶.

4. Incentive measures

4.1. Incentive measures in the Law on Tourism and Hospitality

In accordance with the Law on Tourism and Hospitality (Article 11), in order to ensure the development of high-quality tourism in accordance with strategic documents, the Programme **of Incentive Measures** for³²⁷:

- encouraging the construction of tourist infrastructure, tourist superstructure, sports-recreational and other accompanying facilities important for improving the quality of the tourist offer;
- improvement of the existing tourist product and intensification of its use;
- improving knowledge and skills in tourism;
- encouraging tourist traffic;
- more efficient promotion of the tourist destination.

³²⁶ <http://lowcarbonme.me/me/media-centar/novosti/projekat-razvoj-niskokarbonskog-turizma-u-crnoj-gori>.

³²⁷ Law on Tourism and Hospitality, (“Official Gazette of Montenegro” Nos. 2/18, 4/18, 13/18, 25/19 and 67/19).

The programme of these measures is proposed by the government at the proposal of the ministry, and the funds for financing are provided from the budget of Montenegro. The programme of incentive measures in the field of tourism may also be adopted by the body of the local self-government unit from the funds determined by the budget of the local self-government unit.

The programme must contain the measures to be implemented, the beneficiaries, the conditions for the allocation of funds, the amount of funds and the criteria and procedure for the allocation of funds.

Funds for incentive measures are allocated through a public announcement conducted by the ministry, the National Tourist Organization of Montenegro, or local self-government units. Beneficiaries of incentive measures may be companies, other legal entities, entrepreneurs and natural persons performing tourist and hospitality activities or activities related to tourism and hospitality.

In accordance with the Law on Tourism and Hospitality (Article 113), tourist development zones are formed in an area of at least 1 ha in the northern and central region, except the Capital City, in order to improve the tourist offer and tourist development for balanced regional development. The zone is determined on state-owned land on the basis of a feasibility study for investment projects with a minimum amount of €3,000,000 and with at least 50 accommodation units and a minimum category of four stars. A company, other legal entity, entrepreneur or individuals performing tourist and/or hospitality activities in a tourist zone may exercise the right to incentives in accordance with the law governing state aid (Article 114).

The government determines **a tourist locality** which, due to its exceptional natural, cultural, historical, ambient, spatial, geographical and other values, is of strategic importance for the development of tourism in a certain area, as a priority tourist locality, at the proposal of the ministry.

4.2. Programme of Incentive Measures in the Field of Tourism for 2019–2020

The Programme of Incentive Measures in the Field of Tourism for 2019/2020 defines the measures to be implemented, the users of funds, the conditions for the allocation of funds, the amount of funds and the criteria and procedure for the allocation of funds. The incentive programme includes **six support measures**, namely³²⁸:

- Measure I – Development of innovative tourist products that enrich the tourist offer.
- Measure II – Organizing associations of private accommodation publishers.
- Measure III – Organizing events.
- Measure IV – Support for the development of MICE³²⁹ tourism.
- Measure V – Promotion through international events abroad.
- Measure VI – Support to entities that promote traditional Montenegrin cuisine and products in Montenegro and abroad.

An overview of the measures and the amounts allocated for them for 2019/2020 are shown in the table below.

³²⁸ Programme of Incentive Measures in the Field of Tourism for 2019/2020.

³²⁹ MICE tourism – Meetings, Incentives, Conferences and Events. It is also popularly called the congress industry, which implies intensive planning due to the very demanding clientele. According to the annual report of “PRO SKY” – a German international corporation specializing in destination evaluation in the field of MICE tourism, and based on the evaluation of 450 European professionals from the congress industry, Montenegro was among the eight best MICE destinations for 2019, (<https://sharemontenegro.me/crna-gora-izabrana-u-osam-najboljih-mice-destinacija/>).

Table 47. Incentive measures in the field of tourism for 2019/2020³³⁰

S.n.	Measures	Estimated funds (€)	Allocated funds (€)
I	Development of innovative tourist products that enrich the tourist offer	190,000	190,000
Ia	Development of innovative tourist products	140,000	140,000
Ib	Improving the offer and raising the quality of services in rural households	50,000	50,000
II	Organizing associations of private accommodation publishers	10,000	0
III	Organizing events	275,000	270,490
IIIa	Support for projects with a total estimated value of up to €20,000	40,000	35,490
IIIb	Support for projects with a total estimated value of up to €100,000	70,000	70,000
IIIc	Support for music festivals with a total estimated value of over €100,000	165,000	165,000
IV	Support for the development of MICE tourism	50,000	42,000
V	Promotion through international events abroad	10,000	2,837
VI	Support to entities that promote traditional Montenegrin cuisine and products in Montenegro and abroad	15,000	15,000
	Total	550,000	520,327

Funds for incentive measures are allocated through a public call implemented by the Ministry of Sustainable Development and Tourism (worth €350,000) and the National Tourism Organization of Montenegro (worth €200,000). Out of the total planned €550,000, €520,327 has been distributed, so the public call for certain measures is still open, until all the planned funds are distributed.

Below is a table with the current status of the measures presented above: an overview of progress in the implementation and financing of measures, the ratio of approved projects and allocated funds, according to data from February 2020³³¹:

330 Report on the implementation of the Programme of Incentive Measures in the Field of Tourism for 2019/2020 with Public Calls for Improvement of the Offer in the North of Montenegro, February 2020.

331 Ibid.

Table 48. Current status of incentive measures in tourism for 2019/2020

S.n.	Measures
I	Development of innovative tourist products that enrich the tourist offer
Ia	<p>Development of innovative tourist products</p> <ul style="list-style-type: none"> - So far, four projects have been realized, out of the total of 21 supported, other projects have a deadline for realization at the end of August 2020. The total funds paid by the NTO amount to €36,361, the remaining €103,639 will be paid after the submission of the implementation report.
Ib	<p>Improving the offer and raising the quality of services in rural households</p> <ul style="list-style-type: none"> - The measure includes phased implementation; the MSDT has so far paid €32,675 out of a total budget of €50,000
II	Organizing an association of private accommodation issuers (there were NO applications)
III	Organizing events
IIIa	<p>Area of support for projects whose total estimated value is up to €20,000.00</p> <ul style="list-style-type: none"> - So far, 13 projects out of 18 supported have been implemented; other projects have a deadline for implementation at the end of September 2020. Total funds paid by the MSDT: €28,190; the remaining €7,300 will be paid upon submission of the implementation report.
.IIIc	<p>Support for music festivals whose total estimated value is over €100,000.00</p> <ul style="list-style-type: none"> - So far, a total of 12 projects have been realized out of the total of 13 supported; other projects have a deadline for realization at the end of September 2020. The total funds paid by the MSDT amount to €148,500, while the remaining €16,500 will be paid upon submission of the implementation report.
IV	Support for the development of MICE tourism
	<ul style="list-style-type: none"> - So far, a total of three projects have been realized. The total funds paid by the NTO amount to €28,000, while the remaining amount of €20,000 will be realized upon submission of the report. The public call is open until the total available funds are spent.
V	Promotion through international events abroad
	<ul style="list-style-type: none"> - So far, one project worth €2,837 has been implemented. The public call is open until the total available funds are spent.
VI	Support to entities that promote traditional Montenegrin cuisine and products in Montenegro and abroad
	<ul style="list-style-type: none"> - So far, a total of four projects have been implemented out of the total of 10 supported, other projects have their deadline for implementation at the end of August 2020. The total funds paid by the MSDT amount to €6,800, while the remaining €8,200 will be paid after the submission of the implementation report.

Considering that for certain measures of the Programme of Incentive Measures in the Field of Tourism for 2019–2020 were huge interests, the Ministry of Sustainable Development and Tourism and the National Tourism Organization propose to announce two new public calls³³²:

³³² Ibid.

1. A public call for the enrichment and improvement of the tourist offer on the territory of the ski centres in the north of Montenegro (Nikšić, Šavnik, Plužine, Žabljak, Pljevlja, Bijelo Polje, Mojkovac, Kolašin, Berane, Rožaje, Petnjica, Plav and Gusinje) – total amount of incentives: €40,000; and
2. A public call for support of events/ festivals in the period 1 November – 15 April in the north of Montenegro (Nikšić, Šavnik, Plužine, Žabljak, Pljevlja, Bijelo Polje, Mojkovac, Kolašin, Berane, Rožaje, Petnjica, Plav and Gusinje) – total amount of incentives: €26,942.

5. Prospects for the recovery of tourism in Europe and the plan of the European Commission (13 May 2020)

The European Commission (EC) has recommended opening borders within the European Union (EU), but in two phases, as part of a package of measures to return tourism and travel during the summer. Brussels is also ready to include the countries of the Western Balkans in these measures. The recommendations of the measures announced by the EC (13 May) on the freedom of movement of people and the abolition of controls at internal borders apply to all EU member states, members of the Schengen zone, as well as associate members of Schengen (Norway, Switzerland and Liechtenstein). The Commission is also ready to closely link the Western Balkans in implementing a common roadmap for lifting restrictive measures due to COVID-19, in line with previous decisions to support the Western Balkans in the fight against COVID-19 and in the recovery after the pandemic.

On 13 May 2020, the European Commission presented a package of guidelines and recommendations to help Member States phase out travel restrictions and allow tourist businesses to resume operations after several months of quarantine, while respecting the necessary health precautions. The package also seeks to help the EU's tourist sector recover from the pandemic by supporting businesses and ensuring that Europe remains a leading tourist destination.

The Commission's package for tourism and transport includes:

- **A general strategy** towards recovery from 2020 onwards.
- **A common approach to the gradual and coordinated re-establishment of free movement** for tourists and travellers and the lifting of restrictions at the EU's internal borders, in line with the guidelines of the European Centre for Disease Prevention and Control (ECDC), protection measures and economic and social aspects specific destinations; the principle of non-discrimination is recommended, i.e. equal access to travel liberalization for all Member States of the European Union.
- **A framework to support the gradual re-establishment of transport** with guaranteed safety for passengers and employees in the sector (with limited contact, use of protective equipment, coordination between countries on transport regimes, etc.).
- **A recommendation aimed at increasing the attractiveness of travel vouchers for consumers as an alternative to refunds** (delayed travel to the desired destination). Voluntary vouchers should be protected from the insolvency of the issuer, be valid for at least 12 months, include the possibility of exchange for a refund if they are not used within a period of one year. In addition, passengers should be provided with sufficient flexibility, and travel on the same route with the same conditions of service, or booking a travel arrangement with services of the same type or quality. Finally, vouchers should be able to be transferred to another person.

- **Criteria for handling and safe re-establishment of tourist activities**, and for the development of health protocols for catering facilities such as hotels (guidelines for safe continuation of services in tourism, health protocols for the protection of guests and hotel employees, monitoring, monitoring and testing facilities and contact tracing); measures for interoperability of applications tracing contacts.
- **Measures for tourist enterprises:**
 - a) **Providing liquidity for tourist enterprises, in particular SMEs**, through state aid rules (introduction of voucher guarantee schemes and other liquidity schemes, to be approved by the Commission as soon as the Member States inform them);
 - b) **Financing from the EU budget** – ensuring direct liquidity to companies affected by the crisis through the Investment Initiative in response to COVID-19, with joint management with Member States. Also, within the European Investment Fund, €8 billion is available from the 200,000 small businesses affected by the crisis;
 - c) **Saving jobs** with €100 billion in financial assistance through the SURE programme, which helps Member States cover the costs of national part-time programmes, and implementing similar measures to preserve jobs in companies;
 - d) **EC supports partnerships between employment services, social partners and businesses** to facilitate retraining, especially for seasonal workers;
 - e) **Connecting citizens to the local tourist offer, and promoting local attractions, tourism and Europe as a safe tourist destination** – the Commission will work with Member States to promote the system (promotion of sponsorship voucher systems where customers can support their favourite hotels or restaurants; promotion of pan-European communication campaigns for the attractiveness of Europe as a leading tourist destination, the promotion of sustainable tourism, in line with the European Green Plan and encouraging the digital transformation of tourist services for wider choice, better allocation of resources and new ways of managing passenger and tourist flows; organization of the European Convention on Tourism with EU institutions, the tourist industry, regions, cities and other entities, in order to lay the foundations for the future sustainable, innovative and resilient European tourist sector – the European Tourism Programme until 2050)³³³.

6. Concluding assessments and recommendations for a roadmap for strengthening green business in the tourist sector

The tourist sector has faced unprecedented challenges in the context of the COVID-19 pandemic, globally. Possible scenarios and estimates of the decline in tourist traffic range from a 60% to 80% reduction in foreign tourist arrivals in 2020, compared to the previous year, which will lead to losses in export revenues of €840 to €1,100 billion worldwide. The actual scenario will depend on the length of the health crisis, protection measures and the duration of travel restrictions, i.e. closing national borders to all types of passenger traffic.

³³³ EC, Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions Tourism and transport in 2020 and beyond, Brussels, 13 May 2020 COM(2020) 550 final, Commission guidelines on safe travel and renewal of European tourism from 2020 onwards; Press, https://ec.europa.eu/commission/presscorner/detail/hr/ip_20_854.

Support for the tourist sector is part of the Second Government Package of Economic Support Measures, through subsidies for the tourist sector. The subsidy is given to entrepreneurs, micro, small and medium-sized companies³³⁴ in the field of tourism, whose work is not banned, but the scope of whose activities has been significantly reduced as a result of orders from the Ministry of Health to combat the coronavirus epidemic. It covers up to 100% of the amount of taxes and contributions on the minimum wage and 100% of the net minimum wage for employees in the company, which were recorded in February 2020.

From mid-May 2020 in Montenegro, after two months, **protection measures for the tourist sector will be relaxed**: hospitality facilities and beaches will be opened, the ban on movement and internal traffic will be lifted, while respecting protection measures in terms of performing these activities in the first phase.

Total GHG emissions from tourism in Montenegro in 2015 were 528.84 ktCO₂e. Most of these emissions (424.94 ktCO₂e; 80% of the total) occur outside the country, due to transporting of foreign tourists from their countries to Montenegro³³⁵. A total of 103.89 ktCO₂e, or 20%, are emissions within the country and their source is tourist activities (accommodation and other services), transportation and waste management within Montenegro. In the case of domestic emissions, accommodation and other services contribute 60.0%, domestic transport – 26.9% and waste – 13.1% to the total amount of emissions (disposal of liquid and solid waste). All emissions from accommodation and other services take place in the country and are generated directly due to fuel consumption or indirectly due to electricity consumption³³⁶. Fuel and electricity consumption by tourists refers to: accommodation services, food and beverage services, travel agency services, cultural services and sports and recreational services.

Encouraging green business in tourism, in principle, encompasses:

- **All measures to encourage the use of RES and increase EE that can be applied to the tourist sector** (measures and projects in the field of energy, industrial plants in the function of tourism, transport and buildings)
- **Inclusion of economic analysis of climate change in the assessment of investments in this sector** – achieving energy and climate goals at the project level
- **Defining grant schemes** that accompany credit lines, with payment based on the evaluation of the performance of independent institutions, at the end of the implementation of the investment project, which is the basis for reducing the credit base
- **Defining additional fiscal incentives and subsidies for green tourism**

The proposal of measures to encourage green business in the tourist sector (a roadmap) is given in the last chapter of the study, integrally for all sectors.

Draft Law on Amendments to the Law on Tourism and Hospitality (June 2020) – prescribes the possibility for travel agencies/travel organizers to provide unrealized travel contracts in a package deal that were to be realized after 1 March 2020. Due to “special circumstances”, passengers are issued with a voucher, deadlines are defined by which the traveller has the right to a replacement trip and the right to terminate the contract, the deadline for refund, the content of the voucher and the authority of the ministry to prescribe the manner of using vouchers in the regulations.

334 Hotels and similar accommodation – 5510; Holiday and other short-stay accommodation – 5520; Camping, caravan and camping activities – 5530; Travel agency activities – 7911; Tour operator activities – 7912; Other reservation services and related activities – 7990; Hotels and motels, with a restaurant – 55110; All other representatives of the tourist industry were dealt with through the measure for endangered activities.

335 Most emissions from transport come from air transport, followed by shipping, road and rail.

336 UNDP, EQO, Factor CO₂, Greenhouse gas emissions (GHG emissions) from the tourist sector in Montenegro for 2015, 2017.

4. The Environmental Protection Fund and its role in the implementation of incentive schemes for green business

Funds for environmental protection and improvement are provided by the state and local self-government units. Funds for environmental protection are provided from:

- The budget of Montenegro;
- The budgets of local self-government units;
- Ecological compensation funds;
- Funds from the Environmental Protection Fund, i.e. Eco Fund;
- Loans, donations and support;
- Instruments, programmes and funds of the European Union, the United Nations and international organizations;
- Foreign investment aimed at environmental protection; and
- Other sources in accordance with the regulations.

The Government of Montenegro, as part of fulfilling the obligations under Chapter 27 – **Environment and Climate Change, has adopted a Decision on the establishment of the Environmental Fund (Eco-Fund)**, the establishment of which is provided by the Law on the Environment³³⁷. The decision defines: the status of the fund as a limited liability company, the departments of the company and their authorizations, the founding capital, financing and use of funds. The task of the Environmental Protection Fund is to provide funds for the implementation of projects aimed at preserving all components of the environment and the rational use of natural resources as basic conditions for sustainable development.

Through its activities, the Eco Fund will contribute to realization of the strategic vision of Montenegro as an ecological state, which will enable citizens to realize their basic right to a clean and healthy environment. The basis for the functioning of the Environmental Protection Fund are funds for its financing from the budget of Montenegro, ecological fees, domestic and foreign donations and loans and other forms of financing, regulated by the Law on the Environment.

Eco Fund funds are used for:

- Financing the preparation, implementation and development of programmes, projects and similar activities at the national and local levels, with the aim of the preservation, sustainable use, protection and improvement of the environment, energy efficiency and the use of renewable energy sources
- Application of goals and principles of environmental protection in order to achieve an integral and complete preservation of environmental quality, preservation of the biological, geological and landscape diversity and rational use of natural resources and energy as basic conditions for sustainable development, as well as realization of the citizens' rights to a healthy environment.

337 Decision on the Establishment of the Environmental Protection Fund, Official Gazette of Montenegro, No. 81/18.

The special use of these funds is for:

- Co-financing programmes for the protection and development of protected natural resources;
- Financing the costs of implementing preventive or remedial measures when the polluter is unknown in accordance with the law governing liability for environmental damage;
- Co-financing of other investment programmes that contribute to a significant reduction in environmental pollution;
- Development of conceptual designs, scientific research projects of applied character, studies, studies and executive projects;
- Co-financing of professional training of staff in professional, scientific, economic and administrative organizations in the field of the environment of interest to the state;
- Co-financing of organized activities in undertaking measures for environmental protection within environmental non-governmental organizations;
- Co-financing of publications, journals, professional and scientific conferences and field activities in the field of environmental protection and improvement;
- Co-financing the development and implementation of the Local Environmental Protection Plan.

Eco-taxes are fees for environmental pollution that are paid according to the “polluter pays” principle. Legal entities and individuals are obliged to pay an eco-fee for:

1. the release of pollutants into the air;
2. the importing of ozone-depleting substances; and
3. the generation and disposal of hazardous waste.

The amount, method of calculation and payment of these fees shall be determined by the government.

Also, the local self-government unit may prescribe a fee for the protection and improvement of the environment, in accordance with its needs and specifics. Criteria, type and amount of this fee, method of payment, taxpayers, as well as fees for certain categories of taxpayers are prescribed by the local self-government unit, with the prior consent of the government.

With the creation of the Eco Fund, a key change was adopted in the system of concentrating the revenues collected so far on the account of the Eco Fund and then using them in such a way that they are purposed for those sectors from which the revenues are collected.

In October 2019, the government adopted the **Statute of the Environmental Protection Fund** and, as announced at the time, the Eco Fund will pool all resources arising from environmental pollution and, by connecting with international institutions, provide additional sources of funding³³⁸.

Incentives in the field of environmental protection are an effective addition to regulatory measures because their application basically provides pollution reduction. The main purpose of introducing these measures is to force pollutants to make a choice and their consequences would be not only in environmental terms but also in the form of economically rational behaviour.

The Eco Fund started operating in March 2020.

³³⁸ Government of Montenegro, www.gov.me.

VI. CONCLUDING REMARKS AND RECOMMENDATIONS: ROADMAP

The European Green Deal is a new development strategy that should be accepted by Montenegro as well. Its goal is to transform into a fairer and more prosperous society, with a modern, resource-efficient and competitive economy, with reduced CO₂ emissions and where economic growth is decoupled from the use of resources. The goal of this strategy is to protect, but also to encourage the human, social, natural and economic capital of Montenegro, and to help achieve the UN SDGs in the country.

The transition to a more sustainable economy and society is a priority. This is also shown by the **COVID-19 pandemic**. It is very likely that in the future, the frequency and severity of declines in economic activity caused by health crises will be our reality, as will climate change, which is on an increasing trend. That is why the European Green Deal is our common response to future development challenges.

The study showed that we are facing a **threefold crisis**: an acute health and socio-economic crisis that has temporarily locked most economic sectors; and a crisis with deeper roots – a chronic crisis of globalization and economic transformation. The latter has been feeding climate change and income inequality and is rapidly leading to massive unemployment. We need to learn and rethink the way to manage growing risks, as individuals and a collective, as the public and private sectors, globally, nationally and locally. That is why the main message of the research is **resilience and preparedness**, how to make economies and priority sectors more resilient and ready for all climate and economic challenges in the future.

That is why Europe's response must be unique and comprehensive, based on strengthened solidarity between countries, in order to avoid the growth of dangerous extremisms that call into question fundamental European values and a common future within the Union.

Therefore, Montenegro, as a European country on the path to full membership of the Union, is creating **its own strategy of low-carbon development**.

This study and the identified measures are only a contribution to this development commitment.

Table 49. Roadmap for policies and incentives for green business in the sectors of agriculture, tourism and energy in Montenegro

S.no	Measure	Description
		HORIZONTAL MEASURES
1	Strengthening the institutional framework in the field of climate change	Horizontal coordination of legislative reform in the field of climate change; Preparation of the Strategy of Low-Carbon Development of Montenegro; Strengthening administrative capacity to coordinate policies that integrate climate action; Promotional and educational campaigns; Coordination of the Ministry of Sustainable Development and Tourism
2	Integrating energy and climate goals into a single national plan	Development of the National Energy and Climate Plan until 2030 ; Coordination by the Ministry of the Economy; The NECP should include national targets/goals related to the following areas: <ul style="list-style-type: none"> - greenhouse gas emissions, - use of energy from renewable sources; - energy efficiency; - energy security; - the internal energy market; and - research, innovation and competitiveness.
3	A high degree of integration of climate change policy into relevant sectoral policies	Incorporating climate change adaptation and mitigation into: the long-term planning and research activities of various industrial sectors, the construction and transport sectors, as well as forestry policy, within the Recommended Medium-Term Climate Change Strategy Measures (2020–2025). Compliance of all sectoral policies and climate actions with the current development of the Spatial Plan of Montenegro until 2040 . It is also necessary to integrate a sustainable biodiversity economy (as part of a green economy) into mainstream national and sectoral policies, strategies and plans.
4	Strengthening the capacity of local government to implement climate change and energy policy	- The local self-government unit is obliged to plan the needs and manner of energy supply, measures for the efficient use of energy, as well as the use of renewable energy sources and cogeneration, in accordance with the National Energy and Climate Plan and Action Plan for the Development and Use of District Heating and/or cooling and highly efficient cogeneration; - Improving the capacity of local authorities to develop local energy plans and plans for sustainable urban mobility.
5	Preparation for the implementation of the emissions trading system	Continuation of legislative reform; Strengthening institutions, establishing a functional system of monitoring, reporting and verification, in order to ensure timely and uninterrupted implementation of the emissions trading system; the possibility of implementing equivalent measures in order to gradually adapt stakeholders/energy to the environment with limited emissions.
6	Sustainable land use planning	Integrating climate change policy into national and local land use plans; Integrating climate change adaptation measures into national planning and risk management.
7	Improving the system of forecasting and warning of extreme weather events	Procurement of radar equipment and early warning systems; Strengthening the administrative capacity of all involved institutions at the national and local level.
8	Incentives to reduce GHG emissions not covered by the ETS	Reduction of GHG emissions not covered by the ETS (through an increase in EE and the use of RES in the industrial sector and the commercial sector, compared to the base year, e.g. 2010), through: <ul style="list-style-type: none"> - introduction of CO₂ taxes and excise duties on energy (level of harmonization of excise duties in accordance with EU legislation and implementation of CO₂ taxation based on carbon fuel intensity); - tax relief for citizens – e.g. reduction of liabilities based on the annual amount of personal income tax, by reducing it by a certain amount that covers part of the cost of purchasing RES equipment in the household (e.g. purchasing equipment for solar panels in the house or building, where this way covered 25% of the purchase price of that equipment through tax deductions).

9	Green public procurement	<p>The new Law on Public Procurement ("Official Gazette of Montenegro" No. 74/19) was adopted, which in Art. 11 – The principle of environmental protection, social and labour law and ensuring energy efficiency, among other things, prescribes the following: The contracting authority is obliged in the public procurement procedure to ensure that all economic entities international conventions on environmental protection. The procuring entity is obliged to procure goods, services or works while ensuring an adequate reduction of energy consumption, i.e. compliance with the principles of energy efficiency.</p> <p>It is necessary to adopt a special regulation on green public procurement – to adopt a special act that would define the subjects of public procurement in which it is mandatory to take into account the aspect of environmental protection. When awarding public contracts, the contracting authority shall take particular account of the following aspects of environmental protection: energy efficiency and the use of renewable or other alternative energy sources with little or no CO₂ emissions; efficient and reusable water use; efficient use of resources; prevention of health hazards or environmental hazards, in particular air, water and soil pollution, and a reduction of biodiversity; reuse of secondary raw materials and products, and prevention and reduction of waste generation, including due to a longer life of goods or construction, promotion of repair, preparation and use of spent products and waste for reuse and recycling, etc. (good comparative experiences – Decree on Green Public Procurement of Slovenia).</p>
		ENERGY
1	Increasing EE in the production, transmission and distribution of electricity	Application of BAT (best available technologies) in the production, transmission and distribution of electricity; Introduction of smart grids; Within the Recommended Medium-Term Climate Change Strategy Measures (2020–2025).
2	Ecological reconstruction of Block 1 of TPP	<p>Ecological reconstruction is planned to begin soon. This will mean that the plant will be out of operation for four months a year during 2020 and 2021. It is then predicted that there will be a reduction in production due to low market prices and then due to the ETS from 2025</p> <p>Budget: €65 million; CO₂e reduction potential in 2030: 221 Gg</p> <p>Label in the Proposal of Mitigation Measures in the Draft of the Third National Communication, 2020: 1E</p>
3	New power plants which use renewable energy sources	<p>It is assumed that new plants which use renewable sources to cover the country's electricity deficit will not have an impact on greenhouse gas emissions. The production of electricity from renewable sources will contribute to the reduction of GHG emissions only when there is no longer a deficit of electricity.</p> <p>Budget: €766 million; CO₂e reduction potential in 2030: 21 Gg</p> <p>Code in the Proposal of Mitigation Measures in TNK: 2E</p> <p>Note:</p> <p>This measure also includes code 12E in the Draft TNK 2020 – new power plants that use renewable energy sources that are not yet in the final plans, which increases the budget by over €1 million.</p> <p>Within the recommended long-term measures of the climate change strategy until 2030, significant and highly standardized production of electricity from RES implies:</p> <ul style="list-style-type: none"> - growth of up to 30% in the generation of hydroelectric and wind energy, several demonstration plants for energy from biomass. - a 20% increase in micro-production, such as solar PV systems and solar hot water systems for domestic use
4	Heating of the city of Pljevlja	<p>This measure will be implemented after the ecological reconstruction of the TPP (related to the measure of ecological reconstruction of Block 1 of the TPP)</p> <p>Budget: €23 million; CO₂e reduction potential in 2030: 12 Gg</p> <p>Code in the Proposal of Mitigation Measures in TNK: 3E</p>

5	Development and implementation of a regulatory framework for energy efficiency of buildings	<p>This measure has a great impact on the renovation of existing buildings and new buildings as all completely renovated old and all new buildings must meet the minimum requirements (energy passports, i.e. energy certificates as documents certifying the EE of buildings, special software for calculating energy performance of buildings, certification of buildings – preparation of a national inventory of buildings, establishment of a register, training). Estimated energy savings are given in the NEEAP.</p> <p>It is also necessary to adopt the Proposal of Amendments to the Law on Spatial Planning and Construction of Facilities (determined on June 4, 2020).</p> <p>Budget: n/a; CO₂e reduction potential in 2030: 155 Gg</p> <p>Code in the Proposal of Mitigation Measures in TNK: 4E</p>
6	Increasing the energy efficiency of buildings in the public sector	<p>The aim of this measure is to improve energy efficiency and comfort in selected buildings in the public sector. €70 million will be invested in this measure through various phases starting in 2020 (intensification of this measure will lead to accumulation of funds; earmarked savings for sustainable financing in this area; in addition to the budget, support from KfW and the World Bank)</p> <p>Budget: €70 m; CO₂e reduction potential in 2030: 23 Gg</p> <p>Code in the Proposal of Mitigation Measures in TNK: 5E</p> <p>The Ministry of the Economy is implementing the EE Project Programme in Montenegro (MEEP 2, 2018–2023) through an IBRD loan, for public health and education facilities. The ministry is also implementing the EE Programme in Public Buildings EPPB Phase II (based on the loan agreement and financial contribution with KfW Bank of €13.44 million + €22,274 million).</p> <p>Note: within the recommended medium-term measures of the climate change strategy (2020–2025), the following values of indicators in this area have been set:</p> <ol style="list-style-type: none"> 50% of renovated buildings must meet one of these building standards by 2025: 'Living Building Challenge', green building, LEED, sustainable green development standard, or passive houses; 50% of new buildings with a building permit must meet one of the following green building standards 2025: 'Living Building Challenge', green building, LEED, sustainable green development standard, or passive houses.
7	Financial incentives for citizens (for investing in energy efficiency and RES for households)	<p>The aim of this measure is the mechanisms of financial support for investment in EE and RES available to individuals. It includes the introduction of special support programmes at the state and local levels. Primarily, measures should be encouraged that contribute to the reduction of energy needs, as well as the use of solar energy and modern forms of biomass (pellets, briquettes, wood chips). Some of the programmes include the following:</p> <ul style="list-style-type: none"> - Interest-free loans for the installation of modern biomass heating systems (interest rate subsidy and loan processing); The second phase of the programme of the Ministry of the Economy – Energy-Efficient Home, 2019–2020 is currently in progress; - Installation of photovoltaic solar systems in remote rural areas (offline photovoltaic systems) - Interest-free loans to improve the energy performance of the building envelope - Programme of subsidies for the installation of solar water heating systems in new buildings through the reduction of utility fees (compensation for utility land equipment). <p>This measure is related to measure 4E.</p> <p>Budget: €1.3 million; CO₂e reduction potential in 2030: 4 Gg</p> <p>Code in the Proposal of Mitigation Measures in TNK: 6E</p> <p>Note: EBRD projects already exist in this area. Greater involvement of the EIB, which has been declared the European Climate Bank, is also expected. The arrangements can be extended to the IDF of Montenegro and the Environmental Protection Fund.</p>

8	Requirements for energy labelling and eco-design of products that affect energy consumption	<p>In order to provide conditions and practices for meeting the requirements of energy labelling and eco-design of devices, there is already an appropriate legal framework that obliges market participants when placing certain products on the market. Estimated energy savings are shown in the NEEAP.</p> <p>Energy labelling provisions require economic operators to provide consumers with information on how much energy appliances consume. Eco-design requirements set minimum energy efficiency standards (and in some cases pollution standards) for a range of products, which means that if they do not meet these standards, they cannot be placed on the market.</p> <p>(These funds include subsidies for the purchase of energy-efficient devices, but this measure has been postponed due to the COVID-19 pandemic)</p> <p>Budget: €14 million; CO₂e reduction potential in 2030: 288 Gg</p> <p>Code in the Proposal of Mitigation Measures in TNK: 7E</p>
9	Establishment and implementation of EE criteria in public tenders/calls	<p>The main goal of this measure is to establish systematic mechanisms for the introduction of energy efficiency criteria in public procurement procedures in order to achieve significant energy savings and economic and other benefits.</p> <p>Budget: negligible; CO₂e reduction potential in 2030: 9 Gg</p> <p>Code in the Proposal of Mitigation Measures in TNK: 8E</p>
10	Improving energy management at the level of local self-government	<p>With a focus on the implementation of EE measures in public utility companies. The measure includes public lighting, water supply and sewerage and other utilities.</p> <p>The measures also include the consumption of electricity in the buildings of local self-government units, where energy management should be included, i.e. more rational spending, with the application of benchmarking methods for spending).</p> <p>Budget: €5.12 m; CO₂e reduction potential in 2030: 12 Gg</p> <p>Code in the Proposal of Mitigation Measures in TNK: 9E (modified title of the measure)</p>
11	Development of transmission and distribution power system (loss reduction)	<p>Montenegrin transmission and distribution operators will invest in the system (network capacity) to meet the needs of new customers and power plants. This will lead to a reduction in losses in the power system</p> <p>CEDIS and CGES have adopted 10-year investment plans for the first time.</p> <p>Budget: approx. €704 million; CO₂e reduction potential in 2030: 54 Gg</p> <p>Code in the Proposal of Mitigation Measures in TNK: 10E</p>
12	Reconstruction of hydro-electric power plants (increased energy efficiency)	<p>Energy savings related to this measure are achieved by replacing existing obsolete electrical and mechanical equipment (currently available transformers on the market are characterized by greater efficiency due to stricter regulatory requirements).</p> <p>Budget: €48 million; CO₂e reduction potential in 2030: 10 Gg</p> <p>Code in the Proposal of Mitigation Measures in TNK: 11E</p>
13	Increasing the use of information systems (ICT) in energy use (and traffic)	<ul style="list-style-type: none"> - Increasing the use of information systems (ICT) in energy use and transport – application of smart urban applications - 20% increase in the use of appropriate ICT systems in the field of energy and transport
OTHER PRODUCTION SECTORS, TRANSPORT AND WASTE		
1	Measures for increased use of RES and growth of EE in industry	<p>Measures for the increased use of RES in industry (subsidies for the transition from fossil fuels to RES and for the use of waste thermoelectric energy; incentives for the use of solar energy, etc.);</p> <p>Introduction of EE in industrial plants; Measures for the growth of EE in industry: providing technical support for hiring companies for energy audits; Information and educational campaigns; Transposition of the Eco-design Directive;</p> <p>Note: these measures also apply to different service sectors, where there are smaller industrial plants in the function of the main activity.</p>

2	Limiting CO ₂ emissions in the transport sector	<p>Renewal of the vehicle fleet for passenger transport and promotion of sustainable passenger traffic, i.e. improving the efficiency of the vehicle fleet and the use of vehicles, including the preparation of a special action plan for alternative fuels;</p> <p>Promotion of public transport and non-motorized transport;</p> <p>Promotion of the use of alternative fuels and biofuels;</p> <p>Encouraging the renewal of the rolling stock for freight traffic and the promotion of sustainable freight traffic;</p> <p>High energy savings in traffic: 20% increase in the use of alternative fuels;</p> <p>Established retail of biofuels;</p> <p>Developed power supply network for electric vehicles.</p>
3	Improving the thermal integrity of buildings through use of the institutional framework of the construction and spatial planning sector	<p>Further improvement and implementation of construction regulations for new buildings and renovation of existing ones;</p> <p>Improving thermal integrity in all sectors;</p> <p>Establishment and financing of a network of independent advisory services for citizens on energy efficiency measures and the use of RES in households.</p>
4	Diversion of waste streams from disposal to recycling and composting	<p>- According to the recommended medium-term measures of the climate change strategy (2020–2025), the reduction of methane emissions from landfills should be 50%</p> <p>- The Directorate for Investments, SME Development and Management of EU Funds plans to add a programme line for wastewater treatment to the Programme of the Ministry of the Economy in the coming period</p>
AGRICULTURE		
1	Measure of support for organic production	The goals of the support measure for organic agriculture are related to sustainable management of natural resources, a reduction of negative impacts of agriculture on the environment, preservation of biodiversity, raising the quality of agricultural products and contributing to the affirmation of Montenegro as an ecological state. A reduction of 20% of the total amount of nitrogen fertilizers used on the land is assumed.
2	A measure for the conservation of indigenous genetic resources in agriculture	<p>Montenegro has a rich and diverse living world – biodiversity – on a relatively small area. The genetic fund of plants and animals in agriculture is also extremely rich, especially the autochthonous populations of plants and animals used for food production. This fact, as well as the obligation to preserve and sustainably use genetic resources, in accordance with international conventions and principles, requires appropriate financial support from the budget to stimulate agricultural holdings to maintain genetic resources.</p> <p>This measure also includes incentives for the conservation and sustainable use of endangered plant species threatened by genetic erosion.</p>
3	Manure management support measure	<p>This measure supports the construction and/or reconstruction of facilities (pools) for manure storage or procurement of specialized tanks for manure storage. Changing the manure management period not only affects direct NO₂ emissions, but also the methane emission era. This measure should include the overall waste management on the farms, as well as wastewater management from smaller production plants.</p>
4	Increasing the share of legumes in livestock feeding areas	Legumes on temporary grasslands increase biofixation and, thus, reduce the need for fertilizer. Legumes as nitrogen fixers are a mandatory crop in the crop rotation, especially intensive crops that deplete the soil. It is assumed that the proportion of legumes on temporary grasslands can be increased to a maximum of 20%, which is equivalent to a nitrogen fixation rate of 15%. This measure reduces the cost of fertilizer and provides quality fodder, which are benefits for farmers. A prerequisite is to increase the knowledge of farmers and the application of ecological period in connection with the use of fertilizers, as well as providing financial support.
5	Winter cover crops	Sowing of winter cover crops is generally considered to have a positive impact on reducing erosion, soil fertility and quality, water retention and weed reduction, as well as on biodiversity and mitigation of GHG emissions. The area for these crops is limited to the area not covered by regular crops during the winter season.

6	Encouraging the production of agricultural products with the highest added value and the least negative impact on the environment, encouraging their supply chains	<p>* Identified agricultural products with the highest added value in the territory of Montenegro, and conducted an analysis of their value chains with a special focus on the environment – a benchmark for additional incentive measures within the agricultural budget.</p> <p>* Promotion and encouragement of online platforms for the marketing of domestic agricultural products;</p> <p>* State support for free control of the correctness of domestic agricultural products and their promotion as safe products with shorter supply chains;</p> <p>* adaptation of cultivation techniques to climate change (selection of species and agrotechnical measures, based on the prepared study on cultivation technologies, distribution of recommendations from the study, the role of the advisory service). Useful comparative experiences e.g. in fruit growing and olive growing.</p>
7	Afforestation	In order to increase the resilience of new forests to the effects of climate change, habitat mapping will be used in order to identify adequate tree species to be planted in each habitat. Based on the results of habitat mapping, only adapted tree species need to be planted.
8	Nature-friendly forest management and climate-smart approach to forestry	Nature-friendly forest management is one of the approaches to sustainable management and means that measures are implemented that ensure constant productivity, vitality and the provision of ecosystem services in the future. In addition, it includes measures that will be applied in the future in order to adapt to changing climatic conditions. Climate-smart forestry , as a measure of adaptation, is an approach to forest management that makes optimal use of forest land and thus increases forest productivity. This means that the habitat is used in an optimal way to provide quality technical wood and firewood that should replace fossil fuels in the production of heat and electricity. The improvement of forest ecosystems will result in the production of technical wood that will be used for the production of furniture and packaging, with long-term CO ₂ dips. At the end of its life, this technical wood can, with respect to the principles of circular economy, be converted into a renewable period for biomass cogeneration plants.
9	Conversion of coppices to high forests	Direct conversion of coppice forests into high forests is a period of using natural seeds of the best trees of coppice origin and then artificially planting them in places where there was not enough natural regeneration. Improving coppices and degraded forests in good habitats, redefining productivity parameters and extending the duration of the production process in these forests, followed by adequate interventions, will create larger-diameter products that will result in products that will store CO ₂ in the long run. Excess firewood, as a result of these activities, can be used as a source of raw material for energy production for boilers in local communities or in cogeneration plants again as a substitute for fossil fuels. The amount of wood that will be felled during this process will increase emissions in the short term (due to combustion), but due to the higher average increment in high forests that will be created as a result of successful conversion, the overall balance will result in an increase in CO ₂ sinks.
10	Forest plantations with a short patrol	This measure proposes an additional area for planting poplars and willows as the main tree species. Biomass obtained from short-range forest plantations will serve as a source of raw materials for cogeneration plants for the production of heat and electricity.
11	Restoration of overripe stands	The goal is to complete the production process in mature and overripe stands with reduced productivity and to establish natural or artificially new forest stands with high productivity (group mixed stands, where possible). This is of great importance for forestry and the effects of climate change, because the annual growth of old stands is below 3 m ³ /ha, and their CO ₂ absorption capacity is negligible, compared to the growth of young stands of 8 m ³ /ha.
12	Solar panels for katuns (summer pasture settlements)	The Ministry of the Economy, in cooperation with the Ministry of Agriculture and Rural Development (MARD), has implemented the third phase of the “Solar Katuns” project. Budget funds are allocated for 70% of the total project value, while 30% is the participation of beneficiaries (Public Calls of the MARD for adaptation of katuns). Within the previous three phases of the project, the total number of installed photovoltaic erodes on Montenegrin katuns is 243. Conservation of katuns also contributes to measures of sustainable use of mountain pastures, and encourages the preservation of local erod r cattle that are endangered by genetic erosion.

13	Strengthening productivity, stability and resilience of forests and landscapes	Forest development plans are being developed for several municipalities, two studies have been conducted on the impact of climate change on the growth and development of certain forest tree species, and the health status of forests at bioindication points is being monitored . Draft forest development plans for the municipalities of Mojkovac and Pljevlja have been prepared
14	Encouragement of afforestation, additional planting and care of forest bush	Funds for the implementation of incentive measures in forestry and co-financing of works may, in accordance with the annual forest management programme, be provided from the state budget. Afforestation (raising new forests) is planned by the annual forest management programme. This, together with other measures, strengthens competitiveness in forestry, improves environmental conditions and improves the quality of life of the rural population and diversification of the rural economy.
15	Management and cultivation of private forests, adapted to the marking system	The following brochures were made: "Raising new forests by afforestation" (Tips for private forest owners) and "Care of young forest development phases" (Guidelines for forest owners). Amendments to the 2015 Forest Act have simplified the procedures for issuing decisions, remittances, receipts and certificates of origin.
16	Providing quality indigenous seeds and seedlings of forest trees	A Manual with guidelines for providing and developing the production and storage of quality forest seeds and planting material, as well as the Register of Seed Facilities has been prepared . Sixteen seed facilities were registered in accordance with the Law on Reproductive Material of Forest Trees.
17	Construction of forest communications to ensure the sustainability of logging	The Information System on Forest Roads has been established as part of the forestry information system . The future model of reorganization of the Forest Management System will determine the competence and obligation to build and maintain forest roads.
18	Defining a new concept for the medium-term development of the wood industry	In recent years, in order to improve the condition of forests and the manner of their use, the implemented measures have given a number of positive results, especially in terms of better valorization of forest resources. Reorganization of the concept of the current forest management, i.e. the way of using forests, including the organizational and legislative framework, assessment of the fiscal impact on the economy and citizens and defining the financing of the forestry sector , is a priority task in this area. The programme of reorganization of the concession model will create a more efficient starting point for afforestation, i.e. preservation of forest resources. The new model envisages the establishment of a state-owned company that will manage forests and reorganization of activities related to forestry and afforestation, with the aim of establishing a more efficient forest management system , with numerous economic and environmental positive effects through afforestation, action against forest fires and remediation of burned areas.
19	Increasing the demand for biomass by introducing heating of public buildings by cogeneration on wood chips	Improving energy efficiency in public buildings (health, educational, cultural and administrative facilities), which is implemented through two programmes (Energy Efficiency in Montenegro (MEEP) and the Energy Efficiency Programme in Public Buildings (EEPPB)), has already started with activities on introducing heating of public buildings with wood pellets.
20	Inclusion of wood products in "green public procurement"	Link with the horizontal measure on the introduction of green public procurement in the public procurement system in Montenegro. This arrangement is made possible by the new Law on Public Procurement ("Official Gazette of Montenegro" No. 74/19). Especially important for the improvement of the heating period in educational institutions.
21	Defining the export cluster for selected finished products	The records of the Ministry of the Economy have registered seven clusters operating in the field of wood processing , some of which are quite active in the implementation of joint projects aimed at increasing exports .

22	Development of a more flexible period of wood sales	Concession agreements with concessionaires were terminated due to non-fulfilment of obligations, and other forms of wood sales were introduced, primarily through auctions . Proposal for the establishment of an electronic wood exchange (establishment of a company, limited liability company in state ownership). The final phase is the new Forest Concession Use Programme (a new organizational model of state forest management, as a good of public interest, in an environmentally sustainable, socially responsible and economically efficient way). This model provides better access to raw materials for micro and small enterprises, as well as an opportunity for rural areas to develop economic activities.
23	Introduction of chain and control of wood circulation	The FSC Forest Management Certification Action Plan has been adopted and the period of forest certification according to international standards should begin so that the domestic wood industry can enter the western market, where the condition is that the wood originates from certified forests that are managed sustainably.
24	Investments in the wood industry	The realization of the project “Improvement of the wood processing industry” defines the scope, sources and ways of realization of investments in technological modernization, strengthening of staff and development of new products in the period of the wood industry. Employment growth in the forestry and wood industry sector.
25	Strengthening the role and participation of the local population in joint rural development programmes	Support of the Forest Administration. Through employment growth and increasing incomes of rural households, the local community is increasingly interested and involved in (green) development planning.
26	Improving infrastructure in rural areas (rural infrastructure)	This measure is implemented through the Agricultural Budget . It will be continued through the next IPARD programme 2021–2027.
27	Diversity of economic activities in rural areas through the promotion of the role of forests and forestry	For example: investment in tourism, encouraging the rural period structure, sustainable management and use of non-timber forest products.
28	Investments in small forestry and wood industry enterprises in rural areas	Several companies were established for the production of wood pellets, firewood and sawmills .
29	Encouraging afforestation, replenishment and care of coppice forests	A total of 781,136 conifer seedlings were planted; 676,445 seedlings were afforested in accordance with the Forest Management Programme and the Forest Rehabilitation Plan on burned areas on the area of 253.42 ha and 31,220 seedlings in afforestation actions, while approximately 41.88 ha of privately owned forests were afforested (73,471 seedlings were distributed). No care measures have been taken in coppice forests.
30	Arrangement and cultivation of privately owned forests	Realization was carried out in the part related to the development of private forest management plans at the request of the owners , of a total amount of 21.58 ha.
31	Development and implementation of the Forest Fire Protection Plan	The Forest Fire Protection Plan adopted. In the reporting period, the possibility of drafting an integrated plan for protection against forest fires in the next period was considered and a proposal was prepared.
		TOURISM
1	<i>Landscaping</i> of the Tourism Incentive Programme	The programme includes: encouraging recreational and other accompanying content important for improving the quality of the tourist offer; improvement of the existing tourist product and intensification of its use; improving knowledge and skills in tourism; encouraging tourist traffic; as well as more efficient promotion of tourist destinations. All measures to encourage the use of RES and increase EE that can be applied to the tourism sector , through incentives in the field of buildings – in hotels and restaurants, energy sources in private accommodation, vehicles in the function of tourism, etc. Within these measures, it is also important to support entities that promote traditional Montenegrin cuisine and products in Montenegro and abroad.

2	Preparation of economic and social analysis for development projects	Inclusion of economic analysis of climate change in the assessment of investments in this sector – achieving energy and climate goals at the project level.
3	Special credit lines for the tourist industry – the IDF	<p>The IRF MN has several programmes for the touristy industry in which environmental indicators could be introduced as a measure of approval, in addition to the financial aspect of the investment (credit for new hotel facilities, to improve existing apartment and hotel facilities, to improve the tourist infrastructure and non-board offer, and catering support).</p> <p>Defining grant schemes that follow credit lines, with payment based on the evaluation of the performance of independent institutions, at the end of the implementation of the investment project, which is the basis for reducing the credit base.</p> <ul style="list-style-type: none"> - The IDF MN has started the development of credit line models for the grant scheme based on the achieved indicators at the project level, i.e. achieved set climate and energy goals at the project level. - Encourage the involvement of commercial banks in these arrangements.
4	Fiscal relief	Defining additional fiscal reliefs for green tourism ;
5	Taking measures to combat the COVID-19 pandemic, similar to the EU programme (May 2019)	<ol style="list-style-type: none"> Draft Law on Amendments to the Law on Tourism and Hospitality (June 2020) – prescribes the possibility for travel agencies/travel organizers to support un-realized travel contracts in a package deal that was to be implemented after 1 March 2020. Due to “special circumstances”, passengers are issued a voucher, deadlines are defined by which the passenger has the right to a replacement trip and the right to terminate the contract, the refund period, the content of the voucher and the Ministry's authority to prescribe the use of vouchers. Special measures for tourist companies: <ol style="list-style-type: none"> providing liquidity for tourist enterprises, especially SMEs, in compliance with the Temporary Framework for State Aid Rules (introduction of voucher guarantee programmes and other liquidity programmes); subsidies for tourist companies from the Budget – measures to preserve jobs; providing guarantees for corporate loans with banks, in order to provide more favourable bank loans with a longer grace period and repayment period; supporting partnerships between employment services, social partners and businesses to facilitate retraining, especially for seasonal workers; connecting citizens with the local tourist offer, and promoting local attractions, tourism and Europe as a safe tourist destination.
6	Ecosystem services in the function of developing green tourism	<p>Introduction of a legal, institutional and implementation framework for the introduction of the PES model – payment for ecosystem services. Implementation of PES can be through various models such as: environmental fiscal transfers (marking part of state revenues and their allocation to local government or local manager in order to reward and encourage the preservation of ecosystem services used outside their territory-jurisdiction) or the introduction of new tariffs or charges for ecosystem-dependent products or sectors (e.g., supply of water from sources in protected areas) or direct use of public revenue funds to pay for private land of importance or the owner/manager supporting ecosystem services, if economically justified.</p> <p>The competencies of the Environmental Protection Fund are expected to be strengthened in this area.</p>
		GREEN BUSINESS FINANCING – GREEN BONDS
1	Promotional – educational campaigns for green finance, with a focus on green bonds	<p>Educational and promotional campaigns for strengthening green financing in Montenegro, which would include line/departmental ministries for climate policy, energy and finance, as well as all actors in the capital market in Montenegro, and the interested private sector (connecting potential issuers and investors)</p> <ul style="list-style-type: none"> - Introduction to the EU framework for financing sustainable development and the Green Plan for Europe - The possibility of introducing and the advantages of this debt instrument in relation to loans - Introduction to good comparative experiences and practice in selected countries - Identification of potential issuers and pilot projects of their credit rating (comparative experiences, specifics of Montenegro)

2	Education	<p>Advisory services and training for financial managers in local government, the public sector as a whole, as well as in the private sector, i.e. the SME sector; Involvement of financial advisors;</p> <p>Educational workshops need to be organized both at the level of departments and agencies, as well as at the local level, to include business associations and the civil sector, as well as media representatives.</p>
3	Small-scale pilot projects	<p>In the preparation of projects, it is mandatory to hire financial experts, who also have multidisciplinary knowledge related to setting the indicators of environmental impact, i.e. thresholds for achieving climate and energy development goals at the project level; It is necessary to organize training for available staff in this area and work on the integration of teams; Proposal of the Prospectus for the issuance of a green bond (simulation).</p>
4	Gradual takeover of measures from the EU Action Plan for Financing Sustainable Growth of the EU (2018), which are integrated into the European Green Plan (2019)	<p><u>A. Redirecting capital flows towards sustainable investments:</u></p> <ol style="list-style-type: none"> 1. Establishment of EU taxonomy (classification of sustainable activities) 2. Establishment of standards and labels for green financial products, (Report on EU standards for green bonds, Regulation on the content of the Prospectus for issuing green bonds from 2019, possible use of the environmental label framework (EU) for certain financial products); 3. Encouraging investment in sustainable projects, especially for infrastructure, which is responsible for over 60% of CO₂ emissions; Project prioritization, regional approach, cross-border investment effects; 4. Inclusion of sustainability in financial advice – The EC amended the delegated acts of the MiFID II (Markets in Financial Instruments Directive), and the delegated acts of the Insurance Distribution Directive (IDD) to ensure that sustainability preferences are taken into account in the assessment adequacy. The European Securities and Capital Markets Authority (ESMA), has included provisions on sustainability preferences in its adequacy assessment guidelines. Gradual synchronization and download. 5. Adoption of the Regulation on Sustainability Benchmarks – Under the Benchmark Regulation (2016/2011): <ol style="list-style-type: none"> The EC adopts delegated acts on the transparency of methodologies and functions of benchmarks, in order to enable users to better assess the quality of benchmarks of sustainability; and The TEG has published a Report on the Concept and Methodology of the Benchmark for Low Carbon Emissions. TEG also published the Handbook for Climate Transition Criteria, Criteria for Compliance with the Paris Agreement and Criteria for Disclosure of Environmental, Social and Management Factors (2019) <p><u>B. Managing financial risks arising from climate change, resource depletion, environmental destruction and social issues</u></p> <ol style="list-style-type: none"> 6. Better inclusion of sustainability in ratings and market research – EU reviews benefits of amending Regulation on credit rating agencies to allow them to explicitly include sustainability factors in their ratings, in a proportionate way, to preserve market access for smaller entities 7. Clarification of the obligations of institutional investors and asset managers regarding sustainability issues 8. Incorporating sustainability into prudential requirements for banks and insurance companies; <p><u>C. Encouraging transparency and long-term financial and economic activities</u></p> <ol style="list-style-type: none"> 9. Strengthening sustainability disclosure and accounting rules (improving financial reporting); 10. Encouraging sustainable corporate governance and limiting the short-term perspective on capital markets.

		GREEN BUSINESS FINANCING – GREEN CREDIT LINES AND PERFORMANCE GRANT SCHEME
1	Green credit lines IDF MN	<p>Lending programme for projects of environmental protection, energy efficiency and RES; Industry Modernization Support Programme;</p> <p>Agriculture and Food Production Support Programme;</p> <p>Agricultural Development Support Programme – IPARD;</p> <p>IDF programme that supports the programme of support for agricultural development related to the agricultural budget;</p> <p>Agricultural Development Support Programme – purchase of agricultural products;</p> <p>Introduction of new credit lines for priority sectors of agriculture, energy and tourism, with grant schemes with payment based on the achieved effects in the field of climate and energy goals at the project level (for the SME sector)</p>
2	Activities of the Environmental Protection Fund	<p>Beneficiaries of Eco Fund funds can be: companies and other legal and natural persons registered in accordance with the law, local self-government, state administration bodies and other independent legal entities financed from the state budget, non-profit organizations and individuals.</p> <p>Funds for financing the Eco Fund are provided from the budget of Montenegro, funds from eco-fees, loans, donations and assistance; from the instruments and programmes of the EU, UN and other international organizations; through foreign investments intended to protect the environment and other sources in accordance with the law.</p> <p>A separate, future source will be funds collected from emission credits, in accordance with the Regulation on activities or activities that emit greenhouse gases for which a permit for the emission of greenhouse gases is issued (invoices issued for KAP, TEP and Željezara, in terms of tons of CO₂ emissions).</p> <p>Expected revenues, with the change of regulations, can also be ecological fees for motor vehicles, which would be paid upon registration, in accordance with the Law on Roads.</p> <p>As already mentioned, the growth of the Fund's potential revenues is also possible by amending the Law on Waste Management.</p> <p>Eco Fund funds are allocated to beneficiaries to finance projects, programmes and similar activities in the field of environmental protection, through: loans, subsidies, assistance and donations.</p>

ANNEX 1. THE EU TAXONOMY 2020 – Description of priority economic activities with significant contributions to GHG emissions

(March 2020, revision – Climate change mitigation)

	NACE macro-sector	NACE economic classification of activities/climate change mitigation	DESCRIPTION
1	23. Agriculture, forestry and fishing	A.1.2 Growing of perennial crops	Including grapes, tropical and sub-tropical fruits, citrus fruits, stone fruits, other tree and bush fruits and nuts, oleaginous fruits, beverage crops, spices, aromatics and drug and pharmaceutical crops, grass leys.
2	(available mitigation criteria)	A. 1.2 Growing of non-perennial crops	Growing of non-perennial crops: plants that do not last for more than two growing seasons. the growing of these plants for the purpose of seed production is also included. Scope: cereals, leguminous crops, oil seeds, rice; vegetables and melons, roots and tubers; sugar cane, tobacco, fibre crops, other. The growing of non-perennial crops, if done in an appropriate way, can reduce the risk of flash floods by enhancing infiltration and soil water retention.
3		A.1.4 Livestock production	Livestock production (dairy cattle, other cattle and buffaloes, horses and other equines, camels and camelids, sheep and goats, swine/pigs, poultry, other animals).
			Agriculture includes also mixed agricultural production (A.1.5)
			AGRICULTURE is the management of the natural environment, plants and animals to produce and process food, feed, fibre, fuel and other products. As a sector, it plays a central role in climate change, sustainable development and food security. It is projected that by 2050 the global population will have increased to 10 billion, resulting in a 50% increase in the demand for food. However, even at present, the food supply chain contributes 19–29% of global greenhouse gas (GHG) emissions, the majority of which, for most supply chains, occurs at the farm level (80–90%). In the EU, 10% of GHG emissions are attributed to agriculture (2015). This alone presents opportunities for significant climate change mitigation. However, agriculture differs from other sectors when considering climate change mitigation, as it can act as both a source and a sink for GHG emissions. Soil carbon and biomass (trees, shrubs and grasslands) are also relevant as major pools of carbon. For this reason, agriculture has the potential to be a net positive sector from an emissions perspective. At the same time, agricultural productivity is simultaneously vulnerable to climate change (including, but not limited to, heat stress, drought, flooding, changes in seasonality and extreme weather events) and central to supporting adaptation and resilience through its provision of ecosystem services and income for billions of households worldwide.
			MITIGATION CRITERIA – Agriculture can act as both a source and a sink for GHG emissions. However, it may not be possible to reach net negative emissions in every instance of agricultural activity or on every farm, particularly those that specialize in nature and/or have low carbon-stocking capacity. The lack of deep GHG reporting datasets from which to establish best performance benchmarks, coupled with the lack of emissions budgets or sequestration targets for the agricultural sector at either the EU or global level, meant it was not possible to set robust absolute GHG thresholds. Principles – 1. Demonstrate substantial avoidance or reduction of GHG emissions from production and related practices; and 2. Maintain existing sinks and increase sequestration (up to saturation point) in above- and below-ground carbon stocks.
			Therefore, the Taxonomy does not require the demonstration of net negative emissions at the activity or farm level , but instead requires that the following three criteria must all be met for agricultural activities to be recognized as delivering substantial contributions to mitigation:

9	C. Manufacturing	<p>Manufacture of low-carbon technologies</p> <p>* No specific NACE code</p> <p>*The list of specific eligible technologies is coherent with the eligible activities in other sections of the Taxonomy, namely energy, transport and buildings.</p> <p>*No threshold applies, unless otherwise specified in the metrics.</p>	<p>Manufacture of low-carbon technologies/low-carbon activities:</p> <ol style="list-style-type: none"> 1. Manufacturing of products, key components, and machinery that are essential for eligible renewable energy technologies. 2. Manufacture of eligible low-carbon transport vehicles, fleets and vessels. 3. Manufacture of eligible energy efficiency equipment for buildings. 4. Manufacture of other low-carbon technologies that result in substantial GHG emission reductions in other sectors of the economy (including private households). <p>MITIGATION CRITERIA – The manufacture of low-carbon technologies that result in substantial GHG emission reductions in other sectors of the economy (including private households) is eligible provided that product related emissions are at least the level of best available techniques (BAT) i.e. a factory that produces electric cars, but burns coal is not eligible). Thresholds:</p> <p>1. <u>Manufacture of products, key components and machinery that are essential for eligible renewable energy technologies</u> (geothermal power, hydroelectric power, concentrated solar power (CSP), solar photovoltaic (PV), solar thermal energy for district heat production, wind energy, ocean energy, bio-energy technologies that meet the conversion efficiency requirements set in the Renewable Energy Directive (2018/2001/EU) and green hydrogen and hydrogen electrolysis installation (hydrogen electrolysis installation will be part of the Taxonomy if it shows a considerable level of green electricity consumption and shows a pathway towards an increased share of green electricity over the years to come).</p> <p>2. <u>Manufacture of low-carbon transport vehicles</u> and their respective key components, fleets and vessels (passenger cars, heavy-duty vehicles) meeting the following criteria is eligible:</p> <p>2.1. Passenger cars, light commercial vehicles (CO₂ regulation for cars and vans (EU) 2019/631):</p> <ul style="list-style-type: none"> • Until 2025: vehicles with tailpipe emission intensity of max 50 gCO₂/km (WLTP). This also includes zero-tailpipe-emission vehicles (e.g. electric, hydrogen). • From 2026 onwards: only vehicles with an emission intensity of 0 gCO₂/km (WLTP). <p>2.2. For category-L vehicles: • Zero tailpipe emission vehicles (incl. hydrogen, fuel cell, electric).</p> <p>2.3. Heavy-Duty Vehicles: N2 and N3 vehicles, as defined by (heavy-duty CO₂ Regulation (EU) 2019/1242):</p> <ul style="list-style-type: none"> • Zero-direct-emission heavy-duty vehicles that emit less than 1 gCO₂/kWh (or 1 gCO₂/km for certain N2 vehicles); • Low-emission heavy-duty vehicles with specific direct CO₂ emissions of less than 50% of the reference CO₂ emissions of all vehicles in the same sub-group. <p>2.4. Rail fleets:</p> <ul style="list-style-type: none"> • Zero-direct-emission trains <p>2.5. Urban, suburban and interurban passenger land transport fleets:</p> <ul style="list-style-type: none"> • Zero-direct-emission land transport fleets (e.g. light rail transit, metro, tram, trolleybus, bus and rail) <p>2.6. Water transport:</p> <ul style="list-style-type: none"> • Zero-direct-emission waterborne vessels. <p>3. <u>Manufacture of the following products (with thresholds where appropriate) for energy-efficient equipment for buildings</u> and their key components is eligible:</p> <ul style="list-style-type: none"> • Installation of Building Management Systems (BMS) • High-efficiency windows (U-value better than 0.7 W/m²K) • High-efficiency doors (U-value better than 1.2 W/m²K) • Insulation products with low thermal conductivity (lambda lower or equal to 0.045 W/m²K), external cladding with U-value lower than 0.5 W/m²K and roofing systems with U-value lower than 0.3 W/m²K) • Hot water fittings (e.g. taps, showers) that are rated in the top class (dark green) of the European Water Label Scheme (http://www.europeanwaterlabel.eu/) • Household appliances (e.g. washing machines, dishwashers) rated in the top available class according to the EU Energy Label for each type of appliance • High-efficiency lighting appliances rated in the highest energy efficiency class that is significantly populated in the energy efficiency label (or higher classes) according to EU energy labelling regulations • Presence and daylight controls for lighting systems • Highly efficient space heating and domestic hot water systems rated in the highest energy efficiency class significantly populated in the energy efficiency label (or higher classes) according to EU energy labelling regulations • Highly efficient cooling and ventilation systems rated in the highest energy efficiency class significantly populated in the energy efficiency label or higher classes according to EU energy labelling regulations • Heat pumps compliant with the criteria for heat pumps given in the energy section of the taxonomy • Façade and roofing elements with a solar shading or solar control function, including those that support the growing of vegetation • Energy-efficient building automation and control systems for commercial buildings as defined according to the EN 15232 standard. • Zoned thermostats and devices for the smart monitoring of the main electricity loads for residential buildings, and sensing equipment, e.g. motion control. • Products for heat metering and thermostatic controls for individual homes connected to district heating systems and individual flats connected to central heating systems serving a whole building. <p>4. <u>Other low-carbon technologies</u> – The manufacture of low-carbon technologies and their key components that result in substantial GHG emission reductions in other sectors of the economy (including private households) is eligible if they demonstrate substantially higher net GHG emission reductions compared to the best-performing alternative technology/product/solution available on the market on the basis of a recognized/standardized cradle-to-cradle carbon footprint assessment (e.g. ISO 14067, 14040, EPD or PEF) validated by a third party. It takes into account the entire life cycle of products that can be reused or recovered to the fullest extent possible (i.e. from birth or “cradle” one generation to re-use, as opposed to the concept of “from cradle to grave”, i.e. from factories to waste)</p>
---	------------------	---	---

10	23.5.1 Manufacture of cement	Manufacture of cement
11	<p>Metric and threshold:</p> <p>a) Cement clinker – As of February 2020, the EU-ETS benchmark value for cement clinker manufacturing is: 0.766 tCO₂e/t of clinker; other threshold calculations available;</p> <p>b) Cement: Specific emissions associated to the clinker and cement production processes are lower than: 0.498 tCO₂e/t of cement or alternative binder; clinker to cement ratio – 0.65.</p> <p>Indirect emissions are from the use of electricity during the clinker and cement production – the electricity demand in cement plants ranges from 90 to 150 kWh/t cement.</p> <p>DNSH criteria in the Taxonomy. (“Do no significant harm”, areas of environmental risk).</p>	
	24.4.2 Manufacture of aluminium	<p>Manufacture of aluminium – highly energy-intensive process. Mitigation measures to be incorporated into a single investment plan:</p> <p>Metric and threshold:</p> <p>Manufacture of primary aluminium is eligible if the three following criteria are met:</p> <p>Criteria 1. Direct emission for primary aluminium production is at or below the value of the related EU-ETS benchmark. As of February 2020, the EU-ETS benchmarks values for aluminium manufacturing is 1.514 tCO₂e/t. Direct emissions are to be calculated according to the methodology used for EU-ETS benchmarks.</p> <p>Criteria 2. Electricity consumption for electrolysis is at or below: 15.29 MWh/t (European average emission factor according to International Aluminium Institute, 2017, to be updated annually).</p> <p>Criteria 3. Average carbon intensity of the electricity that is used for primary aluminium production (electrolysis) is at or below: 100 gCO₂e/kWh (Taxonomy threshold for electricity production, subject to periodical update).</p> <p>Manufacture of secondary aluminium (i.e. production of aluminium from recycled aluminium) is eligible. No additional mitigation criteria need to be met.</p> <p>DNSH criteria in the Taxonomy. (“Do no significant harm”, areas of environmental risk).</p>
12	24.1, 24.2, 24.3, 24.5.1, 24.5.2 Manufacture of iron and steel	<p>Manufacture of iron and steel: 24.1 Manufacture of basic iron and steel and of ferro-alloys; 24.2 Manufacture of tubes, pipes, hollow profiles and related fittings, of steel; 24.3 Manufacture of other products of first processing of steel; 24.5.1 Casting of iron; 24.5.2 Casting of steel.</p> <p>Metric and threshold:</p> <p>Manufacturing of iron and steel at the level of performance achieved by best performing plants is considered to make a substantial contribution to climate change mitigation. Furthermore, secondary production of steel (i.e. using scrap steel) is considered eligible due to significantly lower emissions than primary steel production.</p> <p>Manufacture of iron and steel – GHG emissions (tCO₂e/t product) GHG emissions must be calculated according to the methodology used for EU-ETS benchmarks.</p> <p>As of February 2020, the EU-ETS benchmarks values for iron and steel manufacturing are:</p> <ul style="list-style-type: none"> • Hot metal = 1.328 tCO₂e/t product • Sintered ore = 0.171 tCO₂e/t product • Iron casting = 0.325 tCO₂e/t product • Electric Arc Furnace (EAF) high-alloy steel = 0.352 tCO₂e/t product • Electric Arc Furnace (EAF) carbon steel = 0.283 tCO₂e/t product • Coke (excluding lignite coke) = 0.286 tCO₂e/t product <p>All green new steel production, or combination of new and recycled steel production, is eligible if the emissions fall below the thresholds above.</p> <p>DNSH criteria in the Taxonomy. (“Do no significant harm”, areas of environmental risk).</p>
13	20.11 Manufacture of hydrogen (Manufacture of industrial gases)	Manufacture of hydrogen (CPA: 20.11.11.50)
14	<p>Metric and threshold:</p> <ul style="list-style-type: none"> • Direct CO₂ emissions from manufacturing of hydrogen: 5.8 tCO₂e/t hydrogen in alignment with energy thresholds in the Taxonomy. • Electricity use for hydrogen produced by electrolysis is at or lower than 58 MWh/t hydrogen • Average carbon intensity of the electricity produced that is used for hydrogen manufacturing is at or below 100 gCO₂e/kWh. Taxonomy threshold for electricity production, subject to periodical update. 	
	20.1.3 Manufacture of other inorganic basic chemicals	<ul style="list-style-type: none"> • Manufacture of carbon black • Manufacture of disodium carbonate (soda ash) • Manufacture of chlorine CPA codes: • Carbon black: 20.13.21.30 • Disodium carbonate (soda ash): 20.13.43.10 • Chlorine: 20.13.21.11 <p>Metric and threshold:</p> <p>As of February 2020, the EU-ETS benchmarks values are:</p> <ul style="list-style-type: none"> • For carbon black: 1.954 tCO₂e/t • For soda ash: 0.843 tCO₂e/t <p>Manufacturing of chlorine is eligible if the two following thresholds are met:</p> <ul style="list-style-type: none"> • Electricity use for chlorine manufacturing is at or lower than 2.45 MWh/t chlorine (includes both electrolysis and chlorine treatment, threshold subject to periodic update) • Average carbon intensity of the electricity that is used for chlorine manufacturing is at or below 100 gCO₂e/kWh (Taxonomy threshold for electricity production, subject to periodical update). <p>DNSH criteria in the Taxonomy. (“Do no significant harm”, areas of environmental risk).</p>

15		20.1.4 Manufacture of other organic basic chemicals	<p>Emission factor for all (except for organic chemicals 20.14.32, 20.14.33 and 20.14.34) is GHG emissions per unit of production (tCO₂e/t). GHG emissions must be calculated according to the methodology used for EU-ETS benchmarks.</p> <p>For the manufacturing of the organic chemicals falling under the codes: 20.14.32, 20.14.33, 20.14.34, the following criterion shall apply:</p> <ul style="list-style-type: none"> • The manufacturing of the organic chemicals shall be wholly or partially based on renewable feedstock; and • The carbon footprint shall be substantially lower compared to the carbon footprint of the same chemical manufactured from fossil fuel feedstock. The carbon footprint shall be calculated in accordance with ISO 14067:2018 and validated by a third party. <p>For the purpose of applying these criteria, renewable feedstock refers to biomass, industrial bio-waste or municipal bio-waste. Also, additional criteria are available in the Taxonomy.</p>
		<p>Metric and threshold:</p> <ul style="list-style-type: none"> • Manufacture of high-volume chemicals: acetylene: 20.14.11.90239, ethylene: 20.14.11.30, propylene: 20.14.11.40, butadiene: 20.14.11.60, hydrogen: 20.11.11.50 • Manufacture of aromatics: Mixed alkylbenzenes, mixed alkyl naphthalenes other than HS 2707 or 2902: 20.59.56.70 <ul style="list-style-type: none"> o Cyclohexane: 20.14.12.13 o Benzene: 20.12.23, o Toluene: 20.14.12.25, o-Xylene: 20.14.12.43, o p-Xylene: 20.14.12.4 o m-Xylene and mixed xylene isomers: 20.14.12.47, o Ethylbenzene: 20.14.12.60, o Cumene: 20.14.12.70, o Biphenyl, terphenyls, vinyltoluenes, other cyclic hydrocarbons excluding cyclanes, cyclenes, cycloterpenes, benzene, toluene, xylenes, styrene, ethylbenzene, cumene, naphthalene, anthracene: 20.14.12.90, o Benzol (benzene), toluol (toluene) and xylol (xylenes) I: 20.14.73.20, o Naphthalene and other aromatic hydrocarbon mixtures (excluding benzole, toluole, xylene): 20.14.73.40 • Vinyl chloride: 20.14.13.71 • Styrene: 20.14.12.50 • Ethylene oxide: 20.14.63.73 • Monoethylene glycol: 20.14.23.10 • Adipic acid: 20.14.33.85 • Organic chemicals, which fall under the following CPA codes: o Saturated acyclic monocarboxylic acids and their derivatives (20.14.32), o Unsaturated monocarboxylic, cyclanic, cyclenic or cycloterpenic acyclic polycarboxylic acids and their derivatives (20.14.33,) o Aromatic polycarboxylic and carboxylic acids with additional oxygen functions; and their derivatives, except salicylic acid and its salts (20.14.34) <p>DNSh criteria in the Taxonomy. ("Do no significant harm", areas of environmental risk).</p>	
16		20.1.5 Manufacture of fertilizers and nitrogen compounds	<p>Manufacture of: • Anhydrous ammonia (CPA: 20.15.10.75) • Nitric acid (CPA:20.15.10.50)</p>
17		20.1.6 Manufacture of plastics in primary form	<p>Mitigation measures are eligible provided they are incorporated into a single investment plan within a determined time frame (5 or 10 years) that outlines how each of the measures in combination with others will in combination enable the activity to meet the threshold defined below actions</p> <p>Metric and threshold:</p> <p>Manufacture of plastics in primary form shall comply with at least one of the following three criteria and when relevant with the additional criteria, reported below:</p> <ol style="list-style-type: none"> 1) The plastics in primary form is manufactured by mechanical recycling 2) The plastics in primary form is manufactured by chemical recycling including: chemical depolymerization (a.k.a. monomerization), pyrolysis, gasification, solvent-based purification of polymers etc. When applying criterion 2, the carbon footprint of the plastics in primary form, manufactured by chemical recycling (excluding any calculated benefit from the production of fuels), shall be lower when compared to the carbon footprint of the plastics in primary form manufactured with fossil-fuel feedstock. The carbon footprint shall be calculated in accordance with ISO 14067:2018 and validated by a third party. 3) Manufacture of plastics in primary form shall be wholly or partially derived from renewable feedstock and the carbon footprint of the plastics in primary form, manufactured wholly or partially from renewable feedstock shall be lower when compared to the carbon footprint of the plastics in primary form manufactured with fossil-fuel feedstock. The carbon footprint shall be calculated in accordance with ISO 14067:2018 and validated by a third party. <p>For the purpose of applying criterion 3, renewable feedstock refers to biomass, industrial bio-waste or municipal bio-waste. Additional criteria available.</p>

18	D. Electricity, gas, steam and air conditioning supply	35.1.1 Production of Electricity – from Solar PV	Construction and operation of electricity generation facilities that produce electricity from solar photovoltaic
		<p>Principles of mitigation criteria – to be part of an investment plan (details in the EU Taxonomy for all NACE group 35.1.1).</p> <ul style="list-style-type: none"> • Support a transition to a net-zero-emission economy • Avoidance of lock-in to technologies which do not support the transition to a net-zero-emission economy • Ensure that economic activities meet best-practice standards • Ensure equal comparability within an economic activity with regards to achieving net-zero-emission economy target • Where necessary, incorporating technology-specific considerations into secondary metrics and thresholds 	
		<p>Metric and threshold: Any electricity generation technology can be included in the taxonomy if it can be demonstrated (using an ISO 14067 or a GHG Protocol Product Lifecycle Standard-Compliant Product Carbon Footprint (PCF) assessment), that the lifecycle impacts for producing 1 kWh of electricity are below the declining threshold. Declining threshold: <u>Facilities operating at life cycle emissions lower than 100gCO₂e/kWh, declining to net-0 gCO₂e/kWh by 2050, are eligible.</u></p> <ul style="list-style-type: none"> • This threshold will be reduced every 5 years in line with a net-zero CO₂e in 2050 trajectory • Assets and activities must meet the threshold at the point in time when taxonomy approval is sought • For activities which operate beyond 2050, it must be technically feasible to reach net-zero emissions in scope-1 emissions. <p>However:</p> <ul style="list-style-type: none"> • Solar PV is currently derogated from performing a PCF or GHG lifecycle assessment, subject to regular review in accordance with the declining threshold. • <u>Solar PV is currently deemed to be taxonomy-eligible</u>, which is subject to regular review. 	
		<p>In addition, a DNSH assessment is included (areas of environmental risk). DNSH is included in all NACE activities in the Taxonomy. DNSH assessment for all mentioned NACE activities is included in the EU Taxonomy (more details in the document). For instance: • The PV installation siting: impacts on ecosystems and biodiversity if built in a designated conservation area or other areas with important ecosystem and biodiversity value; • The impacts from the production and end-of-life management of the PV systems and its component/materials: potentially significant environmental impacts are associated with the sourcing/production of materials and components of PV systems (see 'Manufacture of Low-Carbon Technologies' for DNSH criteria)</p>	
		35.1.1 Production of electricity from concentrated solar power (CSP)	Construction and operation of electricity generation facilities that produce electricity from concentrated solar power
19		<p>The same as for Production of electricity from solar PV; Cogeneration of heat and power is covered under Construction and operation of a facility used for cogeneration of heat/cooling and Power threshold (35.11 and 35.30). Generation of heat/cool is covered under the Generation of heat/cool threshold. DNSH criteria available.</p>	
20		35.1.1 Production of electricity from wind power	Construction and operation of electricity generation facilities that produce electricity from wind power
		The same as for Production of electricity from solar PV; DNSH criteria available.	
21		35.1.1 Production of electricity from ocean energy	Construction and operation of electricity generation facilities that produce electricity from ocean energy
		The same as for Production of electricity from solar PV; DNSH criteria available.	
22		35.1.1 Production of electricity from hydroelectric power	Construction and operation of electricity generation facilities that produce electricity from hydroelectric power
		<p>Metric and threshold: Any electricity generation technology can be included in the taxonomy if it can be demonstrated (using ISO 14067 or a GHG Protocol Product Lifecycle Standard-Compliant Product Carbon Footprint (PCF) assessment), that the lifecycle impacts for producing 1 kWh of electricity are below the declining threshold. Hydroelectric power facilities with a power density above 5 W/m² are currently derogated from conducting the PCF or GHG Lifecycle Assessment (subject to regular review in accordance with the declining threshold). The power density approach has been proposed to ease the administrative burden for conducting PCFs.</p> <ul style="list-style-type: none"> • As part of the ISO 14067, G-res tool, GHG Reservoir Tool (https://www.hydropower.org/gres) and the IEA Hydro Framework (as described in the 'Guidelines for the Quantitative Analysis of Net GHG Emissions from Reservoirs', issued in 2 volumes (Measurement Programmes & Data Analysis, and Modelling: Guidelines for Quantitative Analysis of Net GHG Emissions from Reservoirs) are acceptable methodologies. • Allocated emissions should be calculated according to the operating regime, as per the allocation methodology developed by UNESCO/IHA and embedded in the G-res tool and IEA Hydro Framework • These criteria also apply to pumped-storage facilities. • The full PCF assessment shall be subjected to review. 	

23		<p>Declining threshold: Facilities operating at lifecycle emissions lower than 100 gCO₂e/kWh, declining to net-0 gCO₂e/kWh by 2050, are eligible.</p> <ul style="list-style-type: none"> • This threshold will be reduced every 5 years in line with a net-zero CO₂e in 2050 trajectory • Assets and activities must meet the threshold at the point in time when taxonomy approval is sought • For activities which operate beyond 2050, it must be technically feasible to reach net-zero emissions. 	
		<p>DNSH Assessment: The main environmental impacts associated with hydropower installations are:</p> <ul style="list-style-type: none"> - Emissions to water and generation of waste during construction; - Impacts on biodiversity associated with fragmentation of ecosystems and changes to habitat, to hydrological and hydrogeological regimes, water chemistry, and interference with species migration pathways as a result of the establishment of the installation and its operation 	
24		35.1.1 Production of electricity from geothermal	Construction and operation of electricity generation facilities that produce electricity from geothermal
		<p>The same as for Production of electricity from solar PV; DNSH criteria available.</p> <p>A full PCF or GHG lifecycle assessment shall be applied, using project specific data, where relevant, and shall be subject to review</p> <p>(Direct emissions of carbon dioxide (and to a lesser extent methane) result from the release of naturally occurring non-condensable gases (NCGs) from the geothermal fluid during the energy extraction process. DNSH criteria available in the Taxonomy.</p>	
25		35.1.1 Production of electricity from gas combustion	Construction and operation of electricity generation facilities that produce electricity from gas combustion (not exclusive to natural gas)
		<p>Metric and threshold:</p> <p>Any electricity generation technology can be included in the Taxonomy if it can be demonstrated, using ISO 14067 or a GHG Protocol Product Lifecycle Standard compliant Product Carbon Footprint (PCF) assessment, that the lifecycle impacts for producing 1 kWh of electricity are below the declining threshold.</p> <p>A full PCF shall be applied, using project specific data where relevant and shall be subject to review. This assessment should include actual physical measurements, i.e. methane leakage measurements across gas extraction, transport and storage systems.</p> <p>Declining threshold: Facilities operating at lifecycle emissions lower than 100 gCO₂e/kWh, declining to 0 gCO₂e/kWh by 2050, are eligible.</p> <ul style="list-style-type: none"> • This threshold will be reduced every 5 years in line with a net-zero CO₂e in 2050 trajectory • Assets and activities must meet the threshold at the point in time when Taxonomy approval is sought <p>For activities which go beyond 2050, it must be technically feasible to reach net-zero emissions</p> <p>Facilities that will incorporate any form of abatement (e.g. CCS, co-firing, other...) must show that the abatement activity is eligible under the Taxonomy.</p> <p>Electricity generation from other fossil-fuel based gases would be eligible under the Taxonomy, subject to meeting the declining emissions threshold.</p> <p>Combined Heat and Power is covered under Construction and operations of a facility used for cogeneration of heat/cooling and Power threshold.</p> <p>DNSH criteria available (impact on local water (consumption and sewage), the fulfilment of the applicable waste and recycling criteria, the NOx and CO emissions control in line with BREF indicators/EU Best Available Techniques Reference Document and the avoidance of direct impacts on sensitive ecosystems, species or habitats, etc.).</p> <p>DNSH criteria available.</p>	
25		35.1.1 Production of electricity from bioenergy (biomass, biogas and biofuels)	Construction and operation of electricity generation facilities that produce electricity from bioenergy
		<p>Metric and threshold:</p> <p>Production of electricity from biofuels shall be assessed in relation to the relative fossil fuel comparator set out in RED II (Renewable Energy Directive, on the promotion of the use of energy from renewable sources, Directive (EU) 2018/2001)</p> <p>Facilities operating above 80% of GHG emissions reduction in relation to the relative fossil fuel comparator set out in RED II increasing to 100% by 2050, are eligible.</p> <p>For ease of conversion, a GHG emission reduction of 80% in relation to the relative fossil fuel comparator set out in RED II is assumed to be equivalent to the 100 gCO₂e/kWh threshold.</p> <p>Facilities must use feedstocks which meet the criteria on the Manufacture of Biomass, Biogas and Biofuels.</p> <p>This threshold will be reduced every 5 years in line with a net-zero CO₂e in 2050 trajectory</p> <p>Assets and activities must meet the threshold at the point in time when taxonomy approval is sought</p> <p>For activities which go beyond 2050, it must be technically feasible to reach net-zero emissions</p> <p>For Anaerobic Digestion of Bio-waste and Sewage Sludge, refer to activities 5.5 and 5.3 respectively.</p> <p>Any other anaerobic digestion of organic material (not covered under sections 5.3 and 5.5) is eligible provided that:</p> <ul style="list-style-type: none"> - methane leakage from relevant facilities (e.g. for biogas production and storage, energy generation, digestate storage) is controlled by a monitoring plan. - The digestate produced is used as fertilizer/soil improver – directly or after composting or any other treatment. <p>DNSH criteria available. "Do no significant harm" – areas of environmental risk.</p>	

26	35.1.2; 35.1.3 Transmission and distribution of electricity	Construction and operation of transmission lines that transport the electricity on the extra-high-voltage and high-voltage interconnected system with a view to its delivery to final customers or to distributors Construction and operation of distribution systems that transport electricity on high-voltage, medium-voltage and low-voltage distribution systems with a view to its delivery to customers
	<p>Metric and threshold: All electricity transmission and distribution infrastructure or equipment in systems which are on a trajectory to full decarbonization* are eligible, except for infrastructure that:</p> <ul style="list-style-type: none"> - Is dedicated to creating a direct connection, or expanding an existing direct connection between a power production plant that is more CO₂-intensive than 100 gCO₂e/kWh, measured on a LCE basis (Lifecycle Assessment), and a substation or network. <p>* A system is deemed to be on a trajectory to full decarbonization if either:</p> <ul style="list-style-type: none"> - more than 67% of newly connected generation capacity in the system is below the generation threshold value of 100 gCO₂e/kWh measured on a PCF basis, over a rolling five-year period; or - the average system grid emissions factor is below the threshold value of 100 gCO₂e/kWh measured on a PCF basis, over a rolling five-year average period. <p>These criteria will be subject to regular review, in line with reviews of generation threshold values and progress to decarbonization.</p> <p>Transmission and Distribution green-related activities are eligible, irrespective of whether the system is on the path to full decarbonization.</p> <p>DNSH criteria available. "Do no significant harm" – areas of environmental risk.</p>	
27	Storage of electricity (no NACE Code)	Construction and operation of facilities that store electricity and/or renewable energy, and return it at a later time, in the form of electricity
	<p>Metric and threshold: Currently all electricity storage activities are eligible under the Taxonomy, subject to regular review. Eligibility criteria for Demand-Side Management (load shedding and load shifting) activities are available under the transmission & distribution of electricity criteria. However, hydroelectric power pumped storage shall comply with the criteria for "Production of Electricity from Hydroelectric Power". DNSH criteria available. "Do no significant harm" – areas of environmental risk.</p>	
28	Storage of thermal energy (no NACE Code)	Construction and operation of facilities that store thermal energy, and return it at a later time, in the form of thermal energy or other energy vectors
	Currently all thermal energy storage is eligible under the Taxonomy (including Thermal Energy Storage (UTES) or Aquifer Thermal Energy Storage (ATES)), subject to regular review. DNSH criteria available. "Do no significant harm" – areas of environmental risk	
29	Storage of hydrogen (no NACE Code)	Construction and operation of facilities that store hydrogen, and return it at a later time, in the form of hydrogen or other energy vectors.
	<p>Currently construction of hydrogen storage assets is eligible under the Taxonomy, subject to regular review, Operation of hydrogen storage assets is eligible under the Taxonomy if:</p> <ul style="list-style-type: none"> • The infrastructure is used to store taxonomy-eligible hydrogen (see Manufacture of hydrogen). <p>Infrastructure that is required for zero-direct-emission transport (e.g. hydrogen fuelling stations) is eligible under the transport section.</p> <p>DNSH criteria available. "Do no significant harm" – areas of environmental risk</p>	
30	35.2.1 Manufacture of biomass, biogas or biofuels	Manufacture of biomass, biogas or biofuels
	<p>Metric and threshold: Manufacture of biomass, biogas and biofuels is eligible if: Produced from the advanced feedstock listed in Part A of Annex IX of Directive (EU) 2018/2001. For Anaerobic Digestion of Bio-waste and Sewage Sludge, refer to activities 5.5 and 5.3 respectively. Any other anaerobic digestion of organic material (not covered under sections 5.3 and 5.5) is eligible provided that:</p> <ul style="list-style-type: none"> - Methane leakage from relevant facilities (e.g. for biogas production and storage, energy generation, digestate storage) is controlled by a monitoring plan. - The digestate produced is used as fertilizer/soil improver – directly or after composting or any other treatment <p>DNSH criteria available. "Do no significant harm" – areas of environmental risk</p>	
31	35.2.1; H 49.50; Retrofit of gas transmission and distribution networks	Retrofit of gas networks for the distribution of gaseous fuels through a system of mains. Retrofit of gas networks for long-distance transportation of gases by pipelines.

32	Metric and threshold : Retrofit of gas transmission and distribution networks whose main purpose is the integration of hydrogen and other low-carbon gases is eligible: • Any gas transmission or distribution network activities which enable the network to increase the blend of hydrogen and/or other low-carbon gases in the gas system is eligible. • The repair of existing gas pipelines for the reduction of methane leakage is eligible if the pipelines are hydrogen-ready and/or other low-carbon-gas-ready. Retrofit of gas networks whose main purpose is the integration of captured CO ₂ is eligible if the operation of the pipeline meets the criteria outlined for the transportation of captured CO ₂ . Gas network expansion is not eligible. DNSH criteria available. "Do no significant harm" – areas of environmental risk	
	35.30 District heating/cooling distribution	District heating/cooling distribution
33	Metric & threshold: Construction and operation of pipelines and associated infrastructure for distributing heating and cooling is currently eligible, if the system meets the definition of efficient district heat/cool systems in the EU Energy Efficiency Directive. The EU Energy Efficiency Directive defines "efficient district heating and cooling" as a district heating or cooling system using at least 50% renewable energy or 50% waste heat or 75% cogenerated heat or 50% of a combination of such energy and heat. The following activities are always eligible: • Modifications to lower temperature regimes • Advanced pilot systems (control and energy management systems, Internet of Things) DNSH criteria available. "Do no significant harm" – areas of environmental risk	
	35.30 Installation and operation of electric heat pumps	District heating/cooling distribution
34	Metric & threshold: Currently, installation and operation of electric heat pumps is eligible, if: • Refrigerant threshold: GWP < 675; (global warming potential – GWP compares the global warming potential of a gas to that of CO ₂); and • Must meet energy efficiency requirements stipulated in the implementing regulations under the Eco-design Framework Directive, Directive 2009/125/EC. The criterion is subject to regular review. DNSH criteria available. "Do no significant harm" – areas of environmental risk	
	35.11; 35.30 Cogeneration of heating/cooling and power from concentrated solar power	Construction and operation of a facility used for cogeneration of heating/cooling and power from concentrated solar power
35	The same as for Production of electricity from solar PV; DNSH criteria available.	
	35.11; 35.30 Cogeneration of heating/cooling and power from geothermal energy	Construction and operation of a facility used for construction and operation of a facility used for cogeneration of heating/cooling and power from geothermal energy
36	The same as for 35.1.1 Production of electricity from solar PV; DNSH criteria available.	
	35.11; 35.30 Cogeneration of heating/cooling and power from gas (not exclusive to natural gas)	Construction and operation of a facility used for cogeneration of heating/cooling and power from gas combustion (not exclusive to natural gas)
37	The same as for 35.1.1 Production of electricity from gas combustion; DNSH criteria available.	
	35.11; 35.30 Cogeneration of heating/cooling and power from bioenergy	Construction and operation of a facility used for cogeneration of heating/cooling and power from bioenergy
38	The same as for 35.1.1 Production of electricity from bioenergy (biomass, biogas and biofuels); DNSH criteria available.	
	35.30 Production of heating/cooling from concentrated solar power	Production of heating/cooling from concentrated solar power
39	The same as for 35.1.1 Production of electricity from solar PV; DNSH criteria available.	
	35.30 Production of heating/cooling from geothermal	Production of heating and cooling from geothermal energy

40	D. Water, sewerage, waste and remediation	The same as for 35.1.1 Production of electricity from solar PV; DNSH criteria available.	
		35.30 Production of heating/cooling from gas combustion	Production of heating and cooling from gas combustion (not exclusive to natural gas)
The same as for 35.1.1 Production of electricity from gas combustion; DNSH criteria available.			
35.30 Production of heat/cool from bioenergy		Production of heating and cooling from bioenergy	
The same as for 35.1.1 Production of electricity from bioenergy (biomass, biogas and biofuels); DNSH criteria available.			
35.30 Production of heating/cooling using waste heat		Production of heating and cooling using waste heat	
All recovery of waste heat is eligible.			
36.0.0 Water collection, treatment and supply		“Water collection, treatment and supply”. Water collection, treatment and supply with high energy efficiency of the system.	
Mitigation criteria – principles: Substantial contribution to GHG emissions savings through low specific energy consumption in the water collection, treatment and supply system. By 2025 the Sustainable Finance Platform should assess the feasibility of option 2, in particular with regard to the intended incentive for substantial energy efficiency improvements in water supply systems.			
Metrics and threshold: The front-to-end water collection, treatment and supply system is eligible provided that: • Its performance in terms of energy consumption per cubic metre of final water supply is high or substantially improved. Eligibility is demonstrated by adherence to one of two optional thresholds: Option 1: The front-to-end water supply system has a high degree of energy efficiency characterized by: • An average energy consumption of the system (including abstraction, treatment and distribution) of 0.5 kWh per cubic metre billed/unbilled authorized water supply or less. Option 2: The energy efficiency of the front-to-end water supply system is increased substantially: • By decreasing the average energy consumption of the system by at least 20% (including abstraction, treatment and distribution; measured in kWh per cubic metre billed/unbilled authorized water supply); or • By closing the gap between the actual leakage of the water supply network and a given target value of low leakage by at least 20% The unit of measurement is the Infrastructure Leakage Index (ILI) , the target value of low leakage is an ILI of 1.5. ILI is calculated as current annual real losses (CARL) / unavoidable annual real losses (UARL). DNSH criteria available. “Do no significant harm” – areas of environmental risk.			
37.0.0 Centralized wastewater treatment systems		“Centralized wastewater treatment systems” Centralized wastewater systems (including collection and treatment), substituting untreated wastewater discharge or treatment systems causing high GHG emissions (e.g. onsite sanitation, anaerobic lagoons).	
Net GHG emission reduction through centralization of wastewater treatment thus substituting decentralized sanitation systems with higher GHG emissions. Construction or extension of centralized wastewater systems including collection (sewer network) and treatment is eligible, provided that: • The new wastewater treatment substitutes more GHG-emission-intensive wastewater treatment systems (such as pit latrines, septic tanks, anaerobic lagoons, etc.). No threshold applies. DNSH criteria available; (“Do no significant harm”, areas of environmental risk).			
45		37.0.0 Anaerobic digestion of sewage sludge	“Anaerobic digestion of sewage sludge” Treatment of sewage sludge in wastewater treatment plants or in other installation with the resulting production and energetic utilization of biogas.

46	<p>Metrics and threshold: Net GHG emission reduction from sewage sludge treatment through the capture and utilization of the generated biogas in various forms and applications, often displacing fossil fuels. Anaerobic digestion of sewage sludge treatment is eligible provided that (cumulative):</p> <ul style="list-style-type: none"> • Methane leakage from relevant facilities (e.g. for biogas production and storage, energy generation, digestate storage) is controlled by a monitoring plan; • The produced biogas is used directly for the generation of electricity and/or heat, or upgraded to bio-methane for injection into the natural gas grid, or used as vehicle fuel (e.g. BioCNG) or as feedstock in the chemical industry (e.g. for production of H₂ and NH₃). <p>Note – BioCNG™ is a biogas conditioning system, which economically produces biogas-based fuel for compressed natural gas (CNG) vehicles. No threshold applies. DNSH criteria available; “Do no significant harm” – areas of environmental risk.</p>	
	38.1.1 Separate collection and transport of non-hazardous waste in source segregated fractions	“Separate collection and transport of non-hazardous waste in source segregated fractions” Separate collection and transport of non-hazardous waste in single or comingled fractions aimed at preparing for reuse and/or recycling.
47	<p>Metrics and threshold: Net GHG emission reductions through reuse and high-quality recycling of waste, which are enabled by the separate collection and transport of source-segregated non-hazardous waste fractions. Reuse and recycling activities reduce GHG emissions by displacing alternative waste management options (e.g. landfilling and incineration) and alternative raw material sourcing options with higher GHG emission intensity. Separate collection and transport of non-hazardous waste is eligible provided that:</p> <ul style="list-style-type: none"> • Source segregated waste (in single or co-mingled fractions) is separately collected with the aim of preparing for reuse and/or recycling. <p>No threshold applies. DNSH criteria available; “Do no significant harm” – areas of environmental risk.</p>	
	38.2.1 Anaerobic digestion of bio-waste	“Anaerobic digestion of bio-waste” Treatment of separately collected bio-waste through anaerobic digestion with the resulting production and energetic utilization of biogas and production of digestate for use as fertilizer/soil improver, possibly after composting or any other treatment.
48	<p>Principle – Net GHG emission reduction through:</p> <ul style="list-style-type: none"> • Avoidance of GHG emissions compared to alternative options for bio-waste management; • Controlled production and utilization of biogas in various forms and applications, often displacing fossil fuels; • Production and use of digestate as fertilizer/soil improver, displacing synthetic fertilizers and increasing carbon sequestration in soils. <p>Metrics and threshold: Anaerobic digestion of bio-waste is eligible provided that (cumulative):</p> <ul style="list-style-type: none"> • The bio-waste is source segregated and collected separately; • Methane leakage from relevant facilities (e.g. for biogas production and storage, energy generation, digestate storage) is controlled by a monitoring plan; • The produced biogas is used directly for the generation of electricity and/or heat, or upgraded to bio-methane for injection in the natural gas grid, or used as vehicle fuel (e.g. BioCNG) or as feedstock in chemical industry (e.g. for production of H₂ and NH₃); • The digestate produced is used as fertilizer/soil improver – directly or after composting or any other treatment; • In dedicated bio-waste treatment plants, bio-waste shall constitute a major share of the input feedstock (at least 70%, measured in weight, as an annual average). Co-digestion is eligible only with a minor share (up to 30% of the input feedstock) of advanced bioenergy feedstock listed in Annex IX of Directive (EU) 2018/2001. If energy crop feedstock covered by Annex IX is used (with a minor share up to 30%) it shall be produced according to criteria defined for the Taxonomy activities “Growing of perennial crops” or “Growing of non-perennial crops” and respect any additional national limitations established for the purpose of biogas production. <p>DNSH criteria available; NOTE: biomass – means the biodegradable fraction of products, waste and residues from biological origin from agriculture, including vegetal and animal substances, from forestry and related industries, including fisheries and aquaculture, as well as the biodegradable fraction of waste, including industrial and municipal waste of biological origin; biogas – means gaseous fuels produced from biomass; biofuels – means liquid fuel for transport produced from biomass; waste – means any substance or object which the holder discards or intends or is required to discard; bio-waste – means biodegradable garden and park waste, food and kitchen waste from households, restaurants, caterers and retail premises and comparable waste from food processing plants.</p>	
	38.21 Bio-waste composting (MNE NACE – treatment and disposal of hazardous waste)	“Composting of bio-waste” Treatment of separately collected bio-waste through composting (aerobic digestion) with the resulting production of compost for use as fertilizer/soil improver.

49	<p>Principle – Net GHG emission reduction through avoidance of GHG emissions compared to alternative options for bio-waste management and from the production of compost that can be used as fertilizer/soil improver displacing synthetic fertilizers and peat (e.g. in horticulture).</p> <p>Metrics and threshold: Composting of bio-waste is eligible provided that (cumulative):</p> <ul style="list-style-type: none"> • The bio-waste is source segregated and collected separately; • Anaerobic digestion is not a technically and economically viable alternative; • The compost produced is used as fertilizer/soil improver. <p>No threshold applies. DNSH criteria available; (“Do no significant harm”, areas of environmental risk).</p>	
	38.32 Recovery of materials from non-hazardous waste (MNE NACE – recycled sorted waste)	“Composting of bio-waste” Treatment of separately collected bio-waste through composting (aerobic digestion) with the resulting production of compost for use as fertilizer/soil improver.
50	<p>Principle – Net GHG emission reduction enabled through material recovery of separately collected non-hazardous waste streams thanks to the subsequent substitution of virgin materials with secondary raw materials having lower embedded GHG emissions.</p> <p>Metrics and threshold: Material recovery from separately collected non-hazardous waste is eligible provided that:</p> <ul style="list-style-type: none"> • It produces secondary raw materials suitable for substitution of virgin materials in production processes; • At least 50%, in terms of weight, of the processed separately collected non-hazardous waste is converted into secondary raw materials. <p>DNSH criteria available; (“Do no significant harm”, areas of environmental risk).</p>	
	39.00 Capture of landfill gas and use of gas for energy purposes (MNE NACE 39.00 – Cleaning of Housing and other waste management activities)	“Landfill gas capture and energetic utilization” New installation and subsequent operation of a landfill gas capture and energetic utilization system (or extension and/or retrofitting of an existing system) in permanently closed old landfills. (Bio-gas power plant.)
51	<p>Principle – Net GHG emission reduction through the capture and utilization of landfill gas in various forms and applications, often displacing fossil fuels. By 2025 the Sustainable Finance Platform should assess the feasibility of the principle, in particular with regard to the intended incentive to close landfills.</p> <p>Metrics and threshold: Collection and utilization of landfill gas is eligible provided that (cumulative):</p> <ul style="list-style-type: none"> • The landfill has not been opened after [date of entry into force of Taxonomy]; • The landfill (or landfill cell) where the system is newly installed (or extended and/or retrofitted) is permanently closed and is not taking further waste; • The produced landfill gas is used directly for the generation of electricity and/or heat, or upgraded to bio-methane for injection in the natural gas grid, or used as vehicle fuel (e.g. BioCNG) or as feedstock in chemical industry (e.g. for production of H₂ and NH₃); • Methane emissions from the landfill and leakages from the landfill gas collection and utilization facilities are controlled by a monitoring plan. <p>No threshold applies. DNSH criteria available; (“Do no significant harm”, areas of environmental risk).</p>	
	39.00 Direct air capture of CO ₂	Direct air capture of CO ₂ (Remediation activities and other waste management services)
52	<p>Principle:</p> <ul style="list-style-type: none"> • The activity provides substantial contribution to achieving net-zero GHG emissions target by 2050 • The activity reduces net GHG emissions from economic activities and GHG concentrations in the atmosphere • The activity leads to significant emissions reductions compared to BAU • Ensure there is sufficient sequestration capacity available to meet the rate of capture of CO₂ • Emissions captured from direct air capture cannot be attributed towards meeting the threshold of another economic activity in the Taxonomy. <p>Metrics and threshold: All activities pertaining to the direct capture of CO₂ from the atmosphere to lower global atmospheric CO₂ concentration levels are currently eligible, subject to regular review. The TEG recommends that the following ISO standards are incorporated into this Taxonomy threshold when made publicly available: • ISO/TR 27912 – Carbon dioxide capture, ISO/CD 27919-2 – Carbon dioxide capture – Part 2, ISO/CD 27920 – Carbon dioxide capture, transportation and geological storage (CCS) and Quantification and Verification, ISO/DTR 27921 – Carbon dioxide capture, transport and storage – CO₂ stream composition, and ISO/AWI TS 27924 – Lifecycle risk management for integrated CCS projects. DNSH criteria available; (“Do no significant harm”, areas of environmental risk).</p>	
	39.00 Capture of anthropogenic emissions	Capture of anthropogenic CO ₂ emissions

53	H. Transportation and storage (including F. Construction – building of transport infrastructure)	<p>The same principle as for direct air capture of CO₂.</p> <p>Metric and threshold:</p> <p>Capture of anthropogenic emissions is currently eligible provided that:</p> <ul style="list-style-type: none">• It enables the economic activity to operate under its respective threshold; and• It shows that the captured CO₂ will be offloaded to a Taxonomy eligible CO₂ transportation operation and permanent sequestration facility <p>This criterion is subject to regular review. The TEG recommends the same ISO standards, as for all 39.0.0 activities. DNSH criteria available; (“Do no significant harm”, areas of environmental risk).</p>	
		39.00 Transport of CO ₂	Transport of captured CO ₂ by rail, ship and pipeline
54		<p>The same principle as for direct air capture of CO₂.</p> <p>Metric and threshold:</p> <p>Transport modalities that contribute to the transport of CO₂ to eligible permanent sequestration sites are eligible, only if the asset operates below the leakage/tonne of CO₂ threshold.</p> <p>Leakage/tonne of CO₂ transported from head(s) of the transport network to injection point(s) is <0.5%, and the CO₂ is delivered to a taxonomy-eligible permanent sequestration site or to other transport modalities which lead directly to an eligible permanent sequestration site are eligible.</p> <p>Assets or activities that enable carbon capture and use (CCU) will deem all the connected elements of an existing transport network ineligible.</p> <p>Assets which increase the flexibility and management of an existing network, without expanding the network to include carbon capture and use activities is eligible.</p> <p>This criterion is subject to regular review. The TEG recommends the same ISO standards, as for all 39.0.0 activities. DNSH criteria available; (“Do no significant harm”, areas of environmental risk).</p>	
		39.00 Permanent sequestration of captured CO ₂	Permanent sequestration of captured CO ₂
55		<p>The same principle as for direct air capture of CO₂.</p> <p>Metric and threshold:</p> <p>Operation of a permanent CO₂ storage facility is eligible if the facility complies with ISO 27914:2017 for geological storage of CO₂.</p> <p>These requirements are subject to periodical review. The TEG recommends the same ISO standards, as for all 39.0.0 activities. DNSH criteria available; (“Do not significant harm”, areas of environmental risk).</p>	
		49.1.0 Passenger rail transport (interurban)	Passenger rail transport (interurban)
		<p>Principle – Demonstrate substantial GHG emission reduction by:</p> <ul style="list-style-type: none">- Increasing the number of low- and zero-emission fleets, and improving fleet efficiency- Improving efficiency of the overall transport/mobility system	
		<p>Criteria:</p> <ul style="list-style-type: none">• Zero-direct-emission trains are eligible.• Other trains are eligible if direct emissions (TTW) are below 50 gCO₂e emissions per passenger kilometre (gCO₂e/pkm) until 2025 (non-eligible thereafter) <p>Brief rationale:</p> <p>Zero-direct-emission rail (e.g. electric, hydrogen) is eligible because:</p> <ul style="list-style-type: none">• With the present energy mix, the overall emissions associated with zero-direct-emission rail transport (i.e. electric or hydrogen) are among the lowest compared with other transport modes.• The generation of the energy carriers used by zero-direct-emission transport is assumed to become low- or zero-carbon in the near future <p>The threshold of 50 gCO₂e/pkm until 2025 ensures that the carbon intensity remains similar to criteria for eligible road vehicles with low occupation factor (50 gCO₂/pkm) and significantly lower than emissions for an average car in the current vehicle stock.</p> <p>DNSH criteria available; (“Do no significant harm”, areas of environmental risk).</p>	
56		49.2.0 Freight rail transport	Freight rail transport

		<p>The same principle as previous.</p> <p>Metric and threshold:</p> <ul style="list-style-type: none"> • Zero-direct-emission trains (e.g. electric, hydrogen) are eligible. • Other trains are eligible if direct emissions per tonne-km (gCO₂e/pkm) are 50% lower than average reference CO₂ emissions of HDVs as defined for the Heavy-Duty CO₂ Regulation, 2019/1242 on setting CO₂ emission performance standards for new heavy-duty vehicles, to be reviewed in 2025. • Rail that is dedicated to the transport of fossil fuels or fossil fuels blended with alternative fuels is not eligible even if meeting the criteria above. <p>Brief rationale:</p> <p>Zero-direct-emission rail (e.g. electric, hydrogen) is eligible because:</p> <ul style="list-style-type: none"> • With the present energy mix, the overall emissions associated with zero-direct-emission rail transport (i.e. electric or hydrogen) are among the lowest compared with other transport modes. • The generation of the energy carriers used by zero-direct-emission transport is assumed to become low- or zero-carbon in the near future <p>The threshold of 50% lower than average reference CO₂ emissions of HDVs ensures that the carbon intensity remains similar to criteria for eligible road freight vehicles, with a review in 2025 to assess technology developments in the freight transport sector. The Heavy-Duty CO₂ Regulation uses a gCO₂/km metric. To convert this to a gCO₂/tonne-km metric, the average payload for the road freight vehicles should be applied. Once reference value data is available, it is expected that the taxonomy will specify CO₂e/pkm threshold values.</p> <p>DNSH criteria available; ("Do no significant harm", areas of environmental risk).</p>
57	49.3.1 Public transport	<p>Urban and suburban passenger land transport (public transport)</p> <p>The same principle as 49.1.0.</p> <p>Criteria:</p> <p>CO₂e emissions per passenger-kilometre (gCO₂e/pkm).</p> <ul style="list-style-type: none"> • Zero-direct-emission land transport activities (e.g. light rail transit, metro, tram, trolleybus, bus and rail) are eligible. • Other fleets are eligible if direct emissions are below 50 gCO₂e/pkm until 2025 (non-eligible thereafter) <p>Brief rationale:</p> <p>Zero-direct-emission public transport (e.g. electric, hydrogen) is eligible because:</p> <ul style="list-style-type: none"> • With the present energy mix, the overall emissions associated with zero-direct-emission public transport (i.e. electric or hydrogen) are among the lowest compared with other transport modes. • The generation of the energy carriers used by zero-direct emissions transport is assumed to become low- or zero-carbon in the near future <p>The threshold of 50 gCO₂e/pkm until 2025 ensures that the carbon intensity remains similar to criteria for eligible road vehicles with low occupation factor (50 gCO₂/pkm) and significantly lower than emissions for an average car.</p> <p>DNSH criteria available; ("Do no significant harm", areas of environmental risk).</p>
58	Passenger cars and commercial vehicles	<p>Passenger cars, light commercial vehicles and category-L vehicles (this includes all M1, N1 and L category vehicles including where applicable NACE 49.32 – Taxi operations, 53.10 – Postal activities under universal service obligation, 53.20 – Other postal and courier activities, 77.11 – Renting and leasing of cars and light motor vehicles) – where these activities may include the operation of eligible vehicle.</p> <p>Principle – Demonstrate substantial GHG emission reduction by: Increasing the number of low- and zero-emission vehicles; and improving vehicle efficiency.</p> <p>Criteria:</p> <p>CO₂ emissions per vehicle kilometre (gCO₂/km).</p> <p>For passenger cars and light commercial vehicles:</p> <ul style="list-style-type: none"> • Zero-tailpipe-emission vehicles (incl. hydrogen, fuel cell, electric). These are automatically eligible. • Vehicles with tailpipe-emission intensity of max 50 gCO₂/km (WLTP) are eligible until 2025. • From 2026 onwards only vehicles with emission intensity of 0 gCO₂/km (WLTP) are eligible. <p>For category-L vehicles:</p> <p>Zero-tailpipe-emission vehicles (incl. hydrogen, fuel cell, electric).</p> <p>Brief rationale:</p> <p>Zero-direct-emission vehicles (e.g. electric, hydrogen) are eligible because the generation of the energy carriers used by zero-tailpipe-emission vehicles is assumed to become low- or zero-carbon in the near future.</p> <p>Vehicles with tailpipe-emission intensity of max 50 gCO₂/km (WLTP) are eligible until 2025 because the post-2020 CO₂ Regulation for cars and vans sets this threshold as an ambitious mid-term target that is significantly below the expected average emissions of new cars and vans. The 50 gCO₂/km threshold does not apply to category-L vehicles (e.g. motorcycles) due to their lower weight and high electrification potential.</p> <p>DNSH criteria available; ("Do no significant harm", areas of environmental risk).</p>

59	42.4.1 Freight transport services by road (including where applicable NACE 53.10 and 53.20)	Freight transport services by road (including where applicable NACE 53.10 – Postal activities under universal service obligation, 53.20 – Other postal and courier activities)
	<p>Principle – Demonstrate substantial GHG emission reduction by:</p> <ul style="list-style-type: none"> - Increasing the number of low- and zero-emission vehicles, and improving vehicle efficiency - Increasing substitution of fossil fuels with sustainable alternative and net-zero carbon fuels <p>Criteria:</p> <p>CO₂ emissions per vehicle kilometre (gCO₂/km) or gCO₂/kWh.</p> <ul style="list-style-type: none"> • Zero-direct-emission heavy-duty vehicles that emit less than 1 gCO₂/kWh (or 1 gCO₂/km for certain N2 vehicles) are automatically eligible; • Low-emission heavy-duty vehicles with specific direct CO₂ emissions of less than 50% of the reference CO₂ emissions of all vehicles in the same sub-group are eligible. • Dedicated vehicles solely using advanced biofuels or renewable liquid and gaseous transport fuels of non-biological origin as defined in Art. 2 (34) and Art. 2 (36) as well as low indirect land-use change-risk biofuels as defined in Art 2(37) in line with Directive (EU) 2018/2001, guaranteed either by technological design or ongoing monitoring and third-party verification. In addition, for an investment in new vehicles, only vehicles with efficiency corresponding to direct CO₂ emissions (gCO₂/km) (biogenic CO₂) below the reference CO₂ emissions of all vehicles in the same sub-group are eligible. Eligibility should be reviewed latest by 2025 or when Directive (EU) 2018/2001 is reviewed. • Fleets of vehicles dedicated to transport fossil fuels or fossil fuels blended with alternative fuels are not eligible. <p>Brief rationale:</p> <p>Road freight transport with zero-direct-emission vehicles (e.g. electric, hydrogen) is eligible because the generation of these energy carriers is assumed to become low- or zero-carbon in the near future. The definition is aligned with the heavy duty CO₂ regulation, which provides the most recent legislative point of orientation. Road freight transport with low-emission heavy-duty vehicles defined in the same regulation and dedicated vehicles solely using a narrowly defined range of bio- or other renewable fuels are also eligible due to the relatively high challenges in electrifying this vehicle category. Substantial contribution to climate mitigation from fuel substitution is in line with the agreed taxonomy regulation.</p> <p>DNSH criteria available; (“Do not significant harm”, areas of environmental risk).</p>	
60	49.3.9. Interurban scheduled road transport	<p>Interurban scheduled road transport services of passengers</p> <p>Principle – Demonstrate substantial GHG emission reduction by:</p> <ul style="list-style-type: none"> - Increasing the number of low- and zero emission vehicle, and improving vehicle efficiency - Increasing substitution of fossil fuels with sustainable alternative and net-zero carbon fuels - Improving in efficiency of the overall transport/mobility system. <p>Criteria:</p> <p>CO₂e emissions per passenger-kilometre (gCO₂e/pkm).</p> <ul style="list-style-type: none"> • Zero-tailpipe-emission vehicles (incl. hydrogen, fuel cell, electric) are automatically eligible. • Dedicated vehicles solely using advanced biofuels or renewable liquid and gaseous transport fuels of non-biological origin as defined in Art. 2 (34) and Art. 2 (36) in line with Directive (EU) 2018/2001, guaranteed either by technological design or ongoing monitoring and third-party verification. In addition, for an investment in new vehicles, only vehicles with efficiency corresponding to direct emissions below 95 gCO₂e/pkm (including biogenic CO₂) are eligible. Eligibility should be reviewed latest by 2025, or when Directive (EU) 2018/2001 is reviewed. • Other vehicles are eligible if direct emissions are below 50 gCO₂e/pkm <p>Brief rationale:</p> <p>Passenger transport with zero-tailpipe-emission vehicles (e.g. electric, hydrogen) is eligible because the generation of these energy carriers is assumed to become low- or zero-carbon in the near future. Dedicated vehicles solely using a narrowly defined range of bio- or other renewable fuels are also eligible due to the relatively high challenges in electrifying the vehicle category typically used on interurban routes. Substantial contribution to climate mitigation from fuel substitution is in line with the agreed taxonomy regulation. The threshold of 50 gCO₂e/pkm relates to the thresholds set for passenger cars (assuming occupancy of one) and represents a value that is significantly below average new car emissions.</p> <p>DNSH criteria available; (“Do no significant harm”, areas of environmental risk).</p>
61	50.3.0 Inland passenger water transport	<p>Inland passenger water transport</p> <p>Principle – the same as previous.</p> <p>Metric and threshold:</p> <p>Zero-direct-emission inland waterway vessels are eligible.</p> <ul style="list-style-type: none"> • Dedicated vessels solely using advanced biofuels or renewable liquid and gaseous transport fuels of non-biological origin as defined in Art. 2 (34) and Art. 2 (36) in line with Directive (EU) 2018/2001, guaranteed either by technological design or ongoing monitoring and third-party verification. In addition, for an investment in new vessels, only vessels with efficiency corresponding to direct emissions below 95 gCO₂e/pkm (including biogenic CO₂) are eligible. Eligibility should be reviewed latest by 2025, or when Directive (EU) 2018/2001 is reviewed. - Other inland waterways vessels are eligible if direct emissions are below 50 gCO₂e emissions per passenger kilometre (gCO₂e/pkm) (or 92.6 g per passenger nautical mile (gCO₂e/pnm)). Eligibility should be reviewed in 2025. <p>Brief rationale</p> <p>Zero-direct-emission inland waterway transport (e.g. electric, hydrogen) is eligible because:</p> <ul style="list-style-type: none"> • With the present energy mix, the overall emissions associated with zero-direct-emission inland waterway transport (i.e. electric or hydrogen) are among the lowest compared with other transport modes. • The generation of the energy carriers used by zero-direct-emission transport is assumed to become low- or zero-carbon in the near future <p>The threshold of 50 gCO₂e/pkm until 2025 (when it will be reviewed) ensures that the carbon intensity remains similar to criteria for eligible road vehicles with low occupation factor (50 gCO₂/pkm) and significantly lower than emissions for an average car in the current vehicle stock.</p> <p>Substantial contribution to climate mitigation from fuel substitution is in line with the agreed taxonomy regulation</p> <p>DNSH criteria available; (“Do no significant harm”, areas of environmental risk).</p>

62		50.4.0 Inland freight water transport	Inland freight water transport
63		<p>F 42.1.1, 42.1.2 and 42.1.3 <u>Infrastructure for low-carbon transport (land transport)</u></p>	<p>Macro-sector F – Construction Infrastructure for low-carbon transport – land transport including NACE categories: • Construction of roads and motorways • Construction of railways and underground railways • Construction of bridges and tunnels;</p> <p>Also includes categories of activities not covered by NACE including: • Other infrastructure supporting transport activities not included above • Infrastructure and equipment for active mobility</p> <p>Principles – Demonstrate substantial GHG emission reduction by enabling an: - Increase the number of low- and zero-emission fleets, and improving fleet efficiency - Improvement in efficiency of the overall transport/mobility system.</p> <p>Metric and threshold: The construction and operation of transport infrastructure is eligible in the following cases: 1. Infrastructure that is required for zero-direct-emission transport (e.g. electric charging points, electricity grid connection upgrades, hydrogen fuelling stations or electric highways). 2. Infrastructure and equipment (including fleets) for active mobility (walking, cycling, e-bikes and e-scooters) 3. Infrastructure that is predominantly used for low-carbon transport if the fleet that uses the infrastructure meets the thresholds for direct emissions as defined in the relevant activity – measured in CO₂ emissions per kilometre (gCO₂/km), CO₂e emissions per ton-kilometre (gCO₂e/tkm), or CO₂e emissions per passenger-kilometre (gCO₂e/pkm). 4. Non-electrified rail infrastructure with an existing plan for electrification or use of alternatively powered trains. For all cases: • Only infrastructure that is fundamental to the operation of the transport service is eligible. • Infrastructure that is dedicated to the transport of fossil fuels or blended fossil fuels is not eligible</p> <p>Brief rationale: The construction and operation of infrastructure for low-carbon land transport is considered eligible because this is considered a key enabling factor for improving the uptake of the transport activities that are considered eligible under the rest of the land transport section of the Taxonomy. Eligibility for infrastructure is linked to eligibility criteria for fleets using the infrastructure, with additional criteria relating to zero-carbon transport (active mobility). DNSH criteria available; (“Do no significant harm”, areas of environmental risk).</p>

64		F 42.9.1 Infrastructure for low-carbon transport (water transport)	Macro-sector F – Construction Infrastructure for low-carbon transport – water including the following category: • Construction of water projects (including construction of inland port and sea port infrastructure). Also includes categories of activities not covered by NACE including: Other infrastructure supporting transport activities not included above.
		<p>Principles are the same as the previous ones.</p> <p>Threshold: The construction and operation of transport infrastructure is eligible in the following cases:</p> <ol style="list-style-type: none"> 1. Infrastructure that is required for zero-direct-emission water transport (e.g. batteries or hydrogen-fuelling facilities) is eligible 2. Infrastructure dedicated to supporting the renewable energy sector 3. Infrastructure that is predominantly used for low-carbon transport is eligible if the fleet that uses the infrastructure meets the thresholds for direct emissions as defined in the relevant activity – measured in CO₂e emissions per passenger-kilometre (gCO₂e/pkm), per ton-kilometre (gCO₂e/tkm), per passenger nautical mile (gCO₂e/pnm) or per ton-nautical mile (gCO₂e/tkm). <p>For all cases:</p> <ul style="list-style-type: none"> • Only infrastructure that is fundamental to the operation of the transport service is eligible. • Infrastructure that is dedicated to the transport of fossil fuels or blended fossil fuels is not eligible <p>Brief rationale The construction and operation of infrastructure for low-carbon water transport is considered eligible because this is considered a key enabling factor for improving the uptake of the transport activities that are considered eligible under the rest of the land transport section of the Taxonomy. Eligibility for infrastructure is linked to eligibility criteria for fleets using the infrastructure, with additional criteria relating to infrastructure supporting the renewable energy sector. DNSH criteria available; (“Do no significant harm”, areas of environmental risk).</p>	
65	J. ICT	63.1.1 Data processing, hosting and related activities	Storage, manipulation, management, movement, control, display, switching, interchange, transmission or reception of diversity of data through data centres. Data centres include the following equipment: • ICT equipment and services; • cooling; • data centre power equipment; • data centre building; • monitoring systems.
		<p>Principle – Data centres implementing a comprehensive set of energy-efficiency practices are considered to make a substantial contribution to climate change mitigation.</p> <p>Metric and threshold: The data centre implements the European Code of Conduct for Data Centre Energy Efficiency. This implies implementation of the practices – including relevant optional ones where reasonable – described in the most recent “Best Practice Guidelines for the European Code of Conduct for Data Centre Energy Efficiency” (JRC) or in CEN/CENELEC documents CLC TR50600-99-1 and CLC TR50600-99-2”. DNSH criteria available; (“Do no significant harm”, areas of environmental risk).</p>	
66		J61, J62, J63.1.1 Data-driven solutions for GHG emissions reductions	Development and/or use of ICT solutions that are exclusively aimed at collecting, transmitting, storing data and at its modelling and use when these activities are aimed at the provision of data and analytics for decision making (by the public and private sector) enabling GHG emission reductions.
		<p>Principle – Data-driven solutions for GHG emission reductions are considered to make a substantial contribution to climate change mitigation because of the emissions reductions they enable. Metric and threshold: N/A.</p>	
67	F. Construction and L. Real estate activities	F41, F43 Construction of new buildings	<p>Construction of new buildings. This relates primarily to activities under NACE codes “F41.1 – Development of building projects” and “F41.2 – Construction of residential and non-residential buildings”, but includes also activities under NACE code “F43 – Specialized construction activities”</p> <p>Principle: The construction of new buildings designed to minimize energy use and carbon emissions throughout the lifecycle can make a substantial contribution to climate change mitigation by saving large part of the energy and carbon emissions that would be associated with conventionally designed buildings.</p> <p>Condition for non-eligibility: to avoid lock-in and undermining the climate mitigation objective, the construction of new buildings designed for the purpose of extraction, storage, transportation or manufacture of fossil fuels is not eligible.</p> <p>Use of alternative schemes as proxies: outside EU member states, established schemes such as ‘green building’ certifications or building regulations and standards may be used as alternative proof of eligibility, provided that this is verified by the Sustainable Finance Platform. The organization responsible for the scheme will be able to apply for official recognition of its scheme by presenting evidence that a specific level of certification/regulation can be considered equivalent (or superior) to the taxonomy mitigation and DNSH threshold for the relevant climate zone and building type. The Sustainable Finance Platform will assess the evidence and approve or reject the application. DNSH criteria available; (“Do no significant harm”, areas of environmental risk).</p>

68		<p>Metric and threshold: The metric is Primary Energy Demand (PED), defining the energy performance of a building: the annual primary energy demand associated with regulated energy use during the operational phase of the building lifecycle (i.e. 'module B6' as defined in EN15978), calculated ex-ante according to the national methodologies for asset design assessment, or as defined in the set of standards ISO 52000, expressed as kWh/m² per year. The threshold is based on 'nearly zero-energy building' (NZEB) requirements, which are defined in national regulation implementing the EPBD (Energy Performance of Building Directive) and are mandatory for all new buildings across EU member states from 2021. To be eligible, the net primary energy demand of the new construction must be at least 20% lower than the primary energy demand resulting from the relevant NZEB requirements. This reduction can be met through a direct decrease of the primary energy demand via a more efficient design or by offsetting with on-site and off-site renewable generation, or a combination of both strategies. Off-site energy generation must be limited to district heating and cooling systems and local renewable energy sources. The methodology used for the measurement of floor area should be stated referring to the categories defined in the International Property Measurement Standards (https://ipmsc.org/). The establishment of a relative threshold in the form of a percentage improvement on NZEB requirements is justified by the fact that from 2021 new constructions will be mandated by national/regional building regulations to comply with NZEB requirements. DNSH ("Do no significant harm" assessment) is available. ("Do no significant harm", areas of environmental risk).</p>
	F41, F43 Building renovation	<p>Renovation of existing buildings (residential and non-residential). This relates to activities under NACE codes "F41.1 – Development of building projects", "F41.2 – Construction of residential and non-residential buildings" and "F43 – Specialized construction activities".</p> <p>Principle – The renovation of existing buildings to improve their energy performance makes a substantial contribution to climate change mitigation by reducing energy consumption and GHG emissions for the remaining operational phase of the buildings, and by avoiding emissions that would be associated with the construction of new buildings. Condition for non-eligibility: to avoid lock-in and undermining the climate mitigation objective, the renovation of buildings occupied for the purpose of extraction, storage, transportation or manufacture of fossil fuels is not eligible. Use of alternative schemes as proxies: outside EU member states, established schemes such as "green building" certifications or building regulations and standards may be used as alternative proof of eligibility, provided that this is verified by the Sustainable Finance Platform. The organization responsible for the scheme will be able to apply for official recognition of its scheme by presenting evidence that a specific level of certification/regulation can be considered equivalent (or superior) to the taxonomy mitigation and DNSH threshold for the relevant climatic zone and building type. The Sustainable Finance Platform will assess the evidence and approve or reject the application</p>
		<p>Metric and thresholds: The thresholds used to assess the renovation rely on either the respective metrics set in the applicable building energy performance regulation for 'major renovation' transposing the EPBD (Energy Performance of Buildings Directive (EU) 2018/844), or, in the case of relative improvement, on Primary Energy Demand (PED) defined as follows: the annual primary energy demand associated with regulated energy use during the operational phase of the building lifecycle (i.e. 'module B6' according to EN15978), calculated ex-ante according to the national methodologies for asset design assessment, or as defined in the set of standards ISO 52000, expressed as kWh/m² per year. A renovation is eligible when it meets either one of the following thresholds: a) Major renovation: the renovation is compliant with the requirements set in the applicable building regulations for 'major renovation' transposing the Energy Performance of Buildings Directive (EPBD). The energy performance of the building or the renovated part upgraded must meet cost-optimal minimum energy performance requirements in accordance with the EPBD. Note – 'major renovation' means the renovation of a building where: (a) the total cost of the renovation relating to the building envelope or the technical building systems is higher than 25% of the value of the building, excluding the value of the land upon which the building is situated; or (b) more than 25% of the surface of the building envelope undergoes renovation; member states may choose to apply option (a) or (b). b) Relative improvement: the renovation leads to reduction of Primary Energy Demand of at least 30% in comparison to the energy performance of the building before the renovation. (Note – the 30% improvement must result from an actual reduction in primary energy demand (i.e. reductions in net primary energy demand through renewable energy sources do not count), and can be achieved through a succession of measures within a maximum of 3 years). The initial energy performance and the estimated improvement shall be based on a specialized building survey and validated by an Energy Performance Certificate, an energy audit conducted by an accredited independent expert or any other transparent and proportionate method. The methodology used for the measurement of floor area should be stated referring to the categories defined in the International Property Measurement Standards (https://ipmsc.org/). DNSH criteria available; ("Do no significant harm", areas of environmental risk).</p>
69	F41, F43 Individual measures and professional services	<p>Individual renovation measures, installation of renewables on-site and professional, scientific and technical activities. This relates to activities under NACE codes "F41.2 – Construction of residential and non-residential buildings", "F43 – Specialized construction activities", "M – Professional, scientific and technical activities".</p> <p>Principle – Individual measures make a contribution to climate change mitigation by reducing energy use and carbon emissions for the operational phase of the building. Professional services are a necessary support and validation mechanism, especially for building renovation. The investment linked to the individual measure(s) must be aimed at improving energy performance and/or reduction of carbon emissions. The motivation can be demonstrated through an energy audit, an Energy Performance Certificate (EPC) or any other transparent and proportionate method acceptable by the Sustainable Finance Platform.</p>

70	<div> <p>Metric and threshold: There are no defined metrics across the individual measures and professional services.</p> <p>The following individual measures are eligible if compliant with minimum requirements set for individual components and systems in the applicable national regulations transposing the Energy Performance Building Directive (EPBD), and must meet eco-design requirements pursuant to Directive 2009/125/EC:</p> <ul style="list-style-type: none"> a) Addition of insulation to the existing envelope components, such as external walls, roofs (including green roofs), lofts, basements and ground floors (including measures to ensure air-tightness, measures to reduce the effects of thermal bridges and scaffolding) and products for the application of the insulation to the building envelope (mechanical fixings, adhesive, etc.). b) Replacement of existing windows with new energy-efficient windows. c) Replacement of existing external doors with new energy-efficient doors. d) Installation and replacement of HVAC (heating, ventilation and air-conditioning) and domestic hot water systems, including equipment related to district heating service. e) Replacement of inefficient boiler or stove with highly efficient condensing boiler. <p>The following individual measures are eligible if specific requirements are met:</p> <ul style="list-style-type: none"> f) Replacement of old pumps with efficient circulating pumps (as defined in Art. 2 of EU Regulation 622/2012) – on eco-design requirements for glandless standalone circulators and glandless circulators integrated in products. g) Installation of efficient LED lighting appliances and systems. h) Installation of low-flow kitchen and sanitary water fittings in the top two categories of the EU Water Label scheme. <p>The following individual measures are always eligible:</p> <ul style="list-style-type: none"> i) Installation of zoned thermostats, smart thermostat systems and sensing equipment, e.g. motion and day light control. j) Installation of Building Management Systems (BMS) and Energy Management Systems (EMS). k) Installation of charging stations for electric vehicles. l) Installation of smart meters for gas and electricity. m) Installation of façade and roofing elements with a solar shading or solar control function, including those that support the growing of vegetation. </div> <div> <p>The following individual measures are eligible if installed on-site as building services:</p> <ul style="list-style-type: none"> n) Installation of solar photovoltaic systems (and the ancillary technical equipment). o) Installation of solar hot water panels (and the ancillary technical equipment). p) Installation and upgrade of heat pumps contributing to the targets for renewable energy in heating and cooling in accordance with Directive 2018/2001/EU (and the ancillary technical equipment). q) Installation of wind turbines (and the ancillary technical equipment). r) Installation of solar transpired collectors (and the ancillary technical equipment). s) Installation of thermal or electric energy storage units (and the ancillary technical equipment). t) Installation of High-Efficiency Micro CHP (combined heat and power) plant u) Installation of heat exchanger/recovery systems. <p>The following professional services are eligible:</p> <ul style="list-style-type: none"> v) Technical consultations (energy consultants, energy simulation, project management, production of EPC, dedicated training, etc.) linked to the individual measures mentioned above. w) Accredited energy audits and building performance assessments. x) Energy Management Services. y) Energy Performance Contracts. z) Energy Services provided by Energy Service Companies (ESCOs) <p>DNSh (Do no significant harm) assessment is available.</p> </div> <div> <table> <tr> <td>L68 Acquisition and ownership of buildings</td><td>Acquisition of buildings (residential and non-residential). This activity relates to NACE code L68 "Real estate activities" (68.1 Buying and selling of own real estate, 68.2 Renting and operating of own or leased real estate and 68.3 Real estate activities on a fee or contract basis)</td></tr> </table> </div> <div> <p>Principle – The acquisition of buildings designed to minimize energy use and carbon emissions throughout the lifecycle instead of lower-performing ones can make a substantial contribution to the climate change mitigation objectives. While specific data on embodied carbon and thus carbon emissions from the full lifecycle is still limited and needs to be further generated, the acquisition of buildings designed to minimize energy use and carbon emissions during the use phase can already make an important contribution by directing users towards high-performing properties and by sending signals to markets about the need to lift the overall energy performance of the whole stock.</p> <p>For large non-residential buildings (i.e. buildings with an effective rated output for heating systems or systems for combined space heating and ventilation of over 290 kW, or buildings with floor area over 1000 m²), an additional requirement is introduced to ensure that these buildings are operated efficiently, and that actual energy and carbon savings are delivered each year.</p> <p>Condition for non-eligibility: To avoid lock-in and undermining the climate mitigation objective, the acquisition and ownership of buildings for the purpose of extraction, storage, transportation or manufacture of fossil fuels are not eligible.</p> <p>Use of alternative schemes as proxies: Outside EU member states, established schemes such as 'green building' certifications or building regulations may be used as alternative proof of eligibility, provided that this is verified by the Sustainable Finance Platform. The organization responsible for the scheme will be able to apply for official recognition of its scheme by presenting evidence that a specific level of certification/regulation can be considered equivalent (or superior) to the taxonomy mitigation and DNSh threshold established for the relevant climatic zone and building type. The Sustainable Finance Platform will assess the evidence and approve or reject the application.</p> </div>	L68 Acquisition and ownership of buildings	Acquisition of buildings (residential and non-residential). This activity relates to NACE code L68 "Real estate activities" (68.1 Buying and selling of own real estate, 68.2 Renting and operating of own or leased real estate and 68.3 Real estate activities on a fee or contract basis)
L68 Acquisition and ownership of buildings	Acquisition of buildings (residential and non-residential). This activity relates to NACE code L68 "Real estate activities" (68.1 Buying and selling of own real estate, 68.2 Renting and operating of own or leased real estate and 68.3 Real estate activities on a fee or contract basis)		

	<p>Metric and thresholds:</p> <p>The acquisition of buildings designed to minimize energy use and carbon emissions throughout the lifecycle instead of lower-performing ones can make a substantial contribution to climate change mitigation objectives. While specific data on embodied carbon and thus carbon emissions from the full the national methodologies for asset design assessment, or as defined in the set of standards ISO 52000, expressed as kWh/m² per year.</p> <p><u>Case A – Acquisition of buildings built before 31 December 2020</u></p> <p>The calculated performance of the building must be within the top 15% of the local existing stock in terms of operational Primary Energy Demand, expressed as kWh/m²y.</p> <p>Alignment with this criterion can be demonstrated by providing adequate evidence comparing the performance of the relevant asset to the performance of the local stock built before 31 December 2020. Such evidence should be based on a representative sample of the building stock in the respective area where the building is located, distinguishing at the very least between residential and non-residential buildings. The area can be defined as a city, a region or a country.</p> <p>Certification schemes such as EPCs (EE Contracts) may be used as evidence of eligibility when adequate data is available to demonstrate that a specific level (e.g. EPC A) clearly falls within the top 15% of the respective local stock.</p> <p>The TEG recognizes that more work needs to be done to collect and analyse data in order to define absolute thresholds corresponding to the performance of the top 15% of each local stock, such as data showing the distribution of EPCs across the stock and the thresholds used to define EPC ratings.</p> <p>Large non-residential buildings must meet an additional requirement: efficient building operations must be ensured through dedicated energy management.</p> <p><u>Case B – Acquisition of buildings built after 31 December 2020</u></p> <p>The building must meet the criteria established for the ‘Construction of new buildings’ that are relevant at the time of the acquisition.</p> <p>Large non-residential buildings must meet an additional requirement: efficient building operations must be ensured through dedicated energy management.</p> <p>DNSH (Do no significant harm) assessment is available. (“Do not significant harm”, areas of environmental risk).</p>
--	--

Annex 2. Consulted documents

National documents:

1. Energy Charter Secretariat, Detailed Overview of the Energy Efficiency Policy of Montenegro, 2018 (with a focus on energy and EE policy, renewable energy and environmental and climate change policies related to energy).
2. Forest Administration Montenegro, Report on Forest Health Assessment and Sustainability of Forest Management for 2019, 16 April 2020.
3. Government of Montenegro, Economic Reform Programme 2019–2021, January 2019.
4. Government of Montenegro, Information on Financial Support to Montenegro for Prevention of Spreading and Remediation of the Consequences of the COVID-19 Virus Epidemic, 9 April 2020.
5. Government of Montenegro, IPA II 2014–2020, annual actions for respective years.
6. Government of Montenegro, National Flood Protection and Rescue Plan, December 2019.
7. Government of Montenegro, The Energy Development Strategy of Montenegro until 2030.
8. Government of Montenegro, Economic Reform Programme 2019–2021, January 2019.
9. Government of Montenegro, Economic Reform Programme 2020–2022, January 2020.
10. IDF MNE JSC, Programmes for financing environmental protection, energy efficiency and renewable energy sources, 2019.
11. IDF MNE JSC, Proposed amendments to the Medium-Term Plan of the Investment and Development Fund of Montenegro JSC for the period 2019–2022 due to the new situation caused by the coronavirus pandemic, Government of Montenegro, 14 May 2020.

12. IDF Montenegro JLC, Annual Work Plan for 2020, December 2019.
13. IDF Montenegro, Agreement on cooperation with the Ministry of Sustainable Development and Tourism within the programme “All the Wonders of Montenegro”, IRF, 2016.
14. IDF Montenegro, Agreement on cooperation with the Ministry of Sustainable Development and Tourism within the “Programme of interest rate subsidies on loans granted to companies and entrepreneurs in the field of tourism and hospitality”, IRF, 2016.
15. IDF Montenegro, Financial Support Programmes for 2020.
16. IDF Montenegro, Investment and Development Fund, Annual Work Programme for 2020, 19 December 2019.
17. Ministry of Agriculture and Rural Development, Action Plan for Harmonization with the EU Acquis, Chapter 11: Agriculture and Rural Development July 2015.
18. Ministry of Agriculture and Rural Development, Action Plan for the Establishment of IACS and the Paying Agency, 2019.
19. Ministry of Agriculture and Rural Development, Agricultural Budget 2020.
20. Ministry of Agriculture and Rural Development, IPARD II, version 1.2, January 2019.
21. Ministry of Agriculture and Rural Development, National Programme for the Improvement of Facilities for Products of Animal Origin and Facilities for By-Products of Animal Origin 2018–2026.
22. Ministry of Agriculture and Rural Development, Programme for Development of Agriculture and Rural Areas of Montenegro under IPARD II 2014–2020.
23. Ministry of Agriculture and Rural Development, Report for 2019.
24. Ministry of Agriculture and Rural Development, Strategy for Development of Agriculture and Rural Areas 2015–2020, MARD 2015.
25. Ministry of Agriculture and Rural Development, Strategy for the Development of Agriculture and Rural Areas, MARD, June 2015.
26. Ministry of the Economy, Energy Development Strategy of Montenegro until 2030 (2014) and related Action Plan for the period 2021–2025.
27. Ministry of the Economy, Energy Policy of Montenegro until 2030.
28. Ministry of the Economy, Fourth Action Plan on Energy Efficiency of Montenegro for the period 2011–2021.
29. Ministry of the Economy, Industrial Policy 2019–2023.
30. Ministry of the Economy, Report for 2019.
31. Ministry of the Economy, Report on the Implementation of the AP for EE and the AP for the Energy Development Strategy.
32. Ministry of the Economy, Report on the Implementation of the Energy Balance for 2019, February 2020.
33. Ministry of the Economy, Report on the Implementation of the National Action Plan for the Use of Energy from Renewable Sources until 2020, for the period 2016–2017, 26 December 2019.
34. Ministry of the Economy, Strategy for Energy Efficiency of Montenegro until 2025 and AP for Energy Efficiency 2019–2021.
35. Ministry of Finance, Development Directions of Montenegro 2018–2021, December 2017.

36. Ministry of Finance, Macroeconomic and Financial projections 2020–2023, 9 July 2020.
37. Ministry of Finance, Report on the Public Debt of Montenegro on 31 December 2019, 9 April 2020.
38. Ministry of the Interior, Disaster Risk Reduction Strategy 2018–2023, 2017.
39. Ministry of Science, Smart Specialization Strategy 2019–2024 with Action Plan.
40. Ministry of Sustainable Development and Tourism, Development of a More Favourable Environment for Green Businesses and Enterprises in Montenegro, ILO, Podgorica, September 2017.
41. Ministry of Sustainable Development and Tourism, Development of a More Favourable Environment for Green Jobs and Businesses, 2017.
42. Ministry of Sustainable Development and Tourism, Montenegro Gas Inventory 2013.
43. Ministry of Sustainable Development and Tourism, National Strategy of Sustainable Development of Montenegro until 2030, 2016.
44. Ministry of Sustainable Development and Tourism, National Strategy with Action Plan for Transposition, Implementation and Enforcement of the EU Acquis in the Field of the Environment and Climate Change 2016–2020.
45. Ministry of Sustainable Development and Tourism, Programme of Incentive Measures in the Field of Tourism for 2018/2019.
46. Ministry of Sustainable Development and Tourism, Report on Implementation of the National Climate Change Strategy (NCCS) 2030 and its Action Plan, December 2018.
47. Ministry of Sustainable Development and Tourism, Second Biennial Update Report on Climate Change (April 2019).
48. Ministry of Sustainable Development and Tourism, Second National Communication to the UNFCCC (filed in 2015).
49. Ministry of Sustainable Development and Tourism, Socio-Economic Analysis of Investments for Ratification of the Paris Agreement, 2017.
50. Ministry of Sustainable Development and Tourism, Strategy for Protection against Ionizing Radiation, Radio Safety and Radioactive Waste Management 2017–2021 with the Action Plan 2017–2021.
51. Ministry of Sustainable Development and Tourism, the Proposal of the Third National Communication of Montenegro on Climate Change, to the UNFCCC, July 2020.

Legislative framework

1. Energy Balance for Montenegro for 2020, ("Official Gazette of Montenegro" No. 76/19).
2. Law on Agricultural and Food Products Quality Schemes, (OGM No. 22/17).
3. Law on Agriculture and Rural Development ("Official Gazette of Montenegro" Nos. 56/09, 18/11, 40/11, 34/14, 1/15, 30/17 and 51/17).
4. Law on Alcoholic Beverages ("Official Gazette of Montenegro" Nos. 83/09 and 53/16).
5. Law on Budget of Montenegro 2020, (OGM Nos. 79/19 and 61/20).
6. Law on Budget System of the Republic of Serbia ("Official Gazette of RS" Nos. 54/09, 73/10, 101/10, 101/11, 93/12, 62/13, 63/13, 108/13, 142/14 and 68/15 – other law, 103/15, 99/16, 113/17, 95/18, 31/19 and 72/19).
7. Law on Capital Market ("Official Gazette of RS" Nos. 31/11, 112/15, 108/16 and 9/20).
8. Law on Capital Market of the Republic of Croatia, NN Nos. 65/17 and 17/20.

9. Law on Classification of Activities ("OGM" No. 80/11);n o energetici("Sl. list CG", br. 5/16, 21/17).
10. Law on Designations of Origin, Geographical Indications and Guarantees of Guaranteed Traditional Specialties of Agricultural and Food Products ("Official Gazette of Montenegro" No. 18/11).
11. Law on Efficient Use of Energy ("Official Gazette of Montenegro" Nos. 57/14, 3/15 and 25/19).
12. Law on Energy ("Official Gazette of Montenegro" Nos. 5/16 and 21/17).
13. Law on Exploration and Production of Hydrocarbons ("Official Gazette of Montenegro" No. 41/10).
14. Law on Forests ("OGM" Nos. 74/10, 40/11 and 47/15).
15. Law on Indication of Geographical Origin, ("Official Gazette of Montenegro" No. 18/11 and 40/11).
16. Law on Industrial Emissions ("Official Gazette of Montenegro" No. 17/19).
17. Law on Investment and Development Fund, ("OGM" Nos. 88/09, 40/10 and 80/17).
18. Law on Organic Production ("Official Gazette of Montenegro" No. 56/13).
19. Law on Protection against the Negative Impacts of Climate Change ("OGM" No. 73/19).
20. Law on Quality Schemes of Agricultural and Food Products ("OGM" No. 22/17).
21. Law on Ratification of the Framework Agreement between Montenegro represented by the Government of Montenegro and the European Commission on the Rules for Implementing Union Financial Assistance to Montenegro under the Instrument for Pre-Accession Assistance IPA II (Official Gazette of Montenegro – International Agreements, No. 2/16).
22. Law on Regional Development ("Official Gazette of Montenegro" Nos. 20/11, 26/11, 20/15 and 47/19).
23. Law on Regulation of the Market of Agricultural Products ("Official Gazette of Montenegro" No. 51/17).
24. Law on Skiing ("Official Gazette of Montenegro" Nos. 13/07, 40/11, 21/14 and 44/17).
25. Law on State Aid Control ("Official Gazette of Montenegro" No. 12/18).
26. Law on Tourism and Hospitality, ("Official Gazette of Montenegro" Nos. 2/18, 4/18, 13/18, 25/19 and 67/19).
27. Law on Tourist Organizations ("Official Gazette of the Republic of Montenegro" Nos. 11/04, 46/07; "Official Gazette of Montenegro" Nos. 73/10, 40/11, 45/14, 42/17 and 27/19).
28. Law on Wine ("Official Gazette of Montenegro" No. 41/16).
29. Law on Ionizing Radiation Protection and Radiation Safety ("Official Gazette of Montenegro", Nos. 56/09, 58/09, 40/11 and 55/16).
30. Regulation on the National List of Environmental Indicators, ("Official Gazette of Montenegro", No. 19/13).
31. Rules on the Manner and Conditions for Issuing, Amending and Revoking Licences for Performing Energy Activities ("Official Gazette of Montenegro" No. 61/13).
32. State Audit Institution, Report on Success Audit, Success of the Implementation of Environmental Protection Policy in Montenegro – Protection against Forest Fires, 22 October 2019.

Other sources

1. Annual Report GEN-I for 2017, https://www.gen-i.eu/media/1924/gen-i_annual-report-2017_20180719_web.pdf.
2. Apergis, N., Payne, J.E., 2012. Renewable and non-renewable energy consumption-growth nexus: evidence from a panel error correction model. *Energy Economics*, Vol 34(3), 733–738.
3. Bajo, A., Primorac, M., Local Government Borrowing Practice in Croatia, *Financial Theory and Practice*, 34(4), pp. 379-406; http://www.fintp.hr/en/archive/local-government-borrowing-practice-in-croatia_303/.
4. Bejatovic, G., Selak, G., 2016. Borrowing of local self-government units on the financial market – benefits of issuing municipal bonds. *LAW – Theory and Practice*, 1–3, p. 22-34.
5. Hepburn, C., O’Callaghan, B., Stern, N., Stiglitz, J. and Zenghelis, D. “Will COVID-19 fiscal recovery packages accelerate or retard progress on climate change?” Forthcoming in the *Oxford Review of Economic Policy* 36(S1) 4 May 2020; <https://www.smithschool.ox.ac.uk/publications/wpapers/workingpaper20-02.pdf>.
6. CBCG, <https://www.cbcg.me/me/javnost-rada/aktuelno/saopstenja/odrzan-sastanak-guvernera-cbcg-ministra-finansija-i-bankara?id=1726>.
7. Central Bank of Montenegro, Balance of Payments, <https://www.cbcg.me/me/statistika/statisticki-podaci/ekonomski-odnosi-sa-inostranstvom/platni-bilans>.
8. Climate Bonds Initiative, <https://www.climatebonds.net/2019/10/green-bond-issuance-tops-200bn-milestone-new-global-record-green-finance-latest-climate>.
9. Commission delegated regulation amending Regulation (EU) 2017/2359 as regards the integration of Environmental, Social and Governance (ESG) considerations and preferences into the investment advice for insurance-based investment products, proposal.
10. Commission implemented regulation regarding the integration of Environmental, Social and Governance (ESG) considerations and preferences into the investment advice and portfolio management is not adopted yet; Full list of implemented and delegated acts of MiFID II are available at https://ec.europa.eu/info/sites/info/files/business_economy_euro/banking_and_finance/documents/mifid2-level-2-measures-full_en.pdf.
11. Communication from the Commission — Guidelines on non-financial reporting: Supplement on reporting climate-related information, 2019/C 209/01, [https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52019XC0620\(01\)](https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52019XC0620(01)).
12. Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions, The European Green Deal, Brussels, 11 December 2019., COM (2019) 640 final <https://eur-lex.europa.eu/legal-content/EN/TXT/DOC/?uri=CELEX:52019DC0640&from=EN>.
13. Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions, European Green Plan, Brussels, 11 December 2019., COM (2019) 640 final <https://eur-lex.europa.eu/legal-content/EN/TXT/DOC/?uri=CELEX:52019DC0640&from=EN>.

14. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions – Sustainable Europe Investment Plan/ European Green Deal Investment Plan, Brussels, 14 January 2020. COM(2020)21final.
15. Constitution of Montenegro, Article 58, 2007.
16. Croatian Employers' Association, www.hup.hr.
17. Decision on Issue of Government Bonds, Official Gazette of Montenegro No. 70/16. GB1-2016 series.
18. Decision on the Establishment of the Environmental Protection Fund, Official Gazette of Montenegro, No. 81/18.
19. Decree on Green Public Procurement, Official Gazette of the RS Nos. 51/17 and 64/19. <https://ejn.gov.si/sistem/zeleno-jn.html>.
20. Decree on the Government of Montenegro ("Official Gazette of Montenegro", Nos. 80/08, 14/17 and 28/18).
21. Decree on the procedure for issuing debt securities, "Official Gazette of RS", no. 54/20. <https://www.paragraf.rs/propisi/uredba-o-postupku-za-izdavanje-duznickih-hartija-od-vrednosti-vanredno-stanje.html>.
22. Dickon, P., Rodgers, M. and Samandari, H. "Addressing climate change in a post- pandemic world, McKinsey Quarterly, article posted on 7 April 2020, <https://www.mckinsey.com/business-functions/sustainability/our-insights/addressing-climate-change-in-a-post-pandemic-world>.
23. Directive 2014/65/EU of the EP and of the Council of 15 May 2014 on markets in financial instruments (MiFID II).
24. Directive 2009/138/EC of the European Parliament and of the Council of 25.11.2009. on the taking-up and pursuit of the business of Insurance and Reinsurance (Solvency II).
25. Djurovic, G., Djurovic, V., Bojaj, B.M. (2020), The Macroeconomic Effects of COVID-19 in Montenegro: A Bayesian VAR Approach, (manuscript submitted on 22 April 2020 to *Financial Innovation*, A Springer OA Journal, SSCI indexed journal).
26. Dorit, S. (1998): A Comparative Risk Return Analysis and Performance Evaluation of Tax Free Municipal, The Journal of Business, Vol. 71, No. 1 (January 1998), pp. 135-146.
27. Dutch State Treasury Agency, Outlook 2020, <https://english.dsta.nl/documents/publication/2019/12/13/outlook-2020>, Climate Bonds Initiative, Green Bond European Investor Survey, 2019.
28. EBRD, Regional Economic Prospect Report, April 2020.
29. EC Report 2019, Montenegro.
30. EC, AP for Financing Sustainable Growth, 2018, https://ec.europa.eu/info/files/180308-action-plan-sustainable-growth-factsheet_en.
31. EC, Commission Delegated Regulation (EU) 2019/980 of 14 March 2019 supplementing Regulation (EU) 2017/1129 of the European Parliament and of the Council as regards the format, content, scrutiny and approval of **the prospectus** to be published when securities are offered to the public or admitted to trading on a regulated market, and repealing Commission Regulation (EC) No 809/2004.

32. EC, Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions Tourism and Transport in 2020 and Beyond, Brussels, 13 May 2020 COM(2020) 550 final, Commission guidelines on safe travel and renewal of European tourism from 2020 onwards; Press.
33. EC, Communication from the Commission: Action Plan: Financing Sustainable Growth (8 March 2018), available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52018DC0097>.
34. EC, Proposal for a Regulation of the European Parliament and of the Council on the establishment of a framework to facilitate sustainable investment (24 May 2018), available here: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52018PC0353>.
35. EC, Spring 2020 Economic Forecast: A deep and uneven recession, an uncertain recovery, 6 May 2020.
36. EC, Impact Assessment of the Proposal of the Energy Efficiency Directive (2016), <http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1483696687107&uri=CELEX:52016SC0405>.
37. Economic Reform Programme 2019–2021, Government of Montenegro, Podgorica, January 2019.
38. EEA, Air Pollution from Electricity-Generating Large Combustion Plants , EEA technical report No. 4/ 2008.
39. EIB Climate Action Eligibility List, https://www.eib.org/attachments/strategies/climate_action_lending_eligibility_list_2020_en.pdf.
40. Elkerbout, M., Egenhofer, C., Núñez Ferrer, J., Cătuți, M., Kustova, I., Rizos, V. The European Green Deal after Corona: Implications for EU climate policy, CEPS, Brussels, 31 March 2020.
41. Emerton Study, L. The economic value of protected areas in Montenegro, 2011, in: Biodiversity Development Strategy of Montenegro with Action Plan 2015–2020, page 56).
42. ESMA, Guidelines on MiFID II suitability requirements (ESMA35-43-1163), European Security and Markets Authority, 6 November 2018 (https://www.esma.europa.eu/sites/default/files/library/esma35-43-1163_guidelines_on_certain_aspects_of_mifid_ii_suitability_requirements_0.pdf).
43. EU, Technical Expert Group on Sustainable Finance, Taxonomy Technical Report, June 2019, revised version published on 9 March 2020.
44. European Commission, Proposal for a Regulation of the European Parliament and of the Council on the establishment of a framework to facilitate sustainable investment (24 May 2018), <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52018PC0353>.
45. European Environmental Agency, Trends and projections in Europe 2019, 15/2019.
46. G20 Green Finance Study Group, G20 Green Finance Synthesis Report, 2016 (https://unepinquiry.org/wp-content/uploads/2016/09/Synthesis_Report_Full_EN.pdf).
47. GEF publication 2019, https://www.thegef.org/sites/default/files/publications/gef_beyond_numbers_august_2019.pdf.
48. General Secretariat of the Government of Montenegro, Methodology for Policy Development, Development and Monitoring of Strategic Planning Documents – measures are defined as operational objectives, and sub-measures are activities, 2018.
49. Green Bond Principles – Voluntary Process Guidelines for Issuing Green Bonds, ICMA, June 2018; (<https://www.icmagroup.org/assets/documents/Regulatory/Green-Bonds/June-2018/Green-Bond-Principles---June-2018-140618-WEB.pdf>).

50. Green Bond Principles, <https://www.icmagroup.org/green-social-and-sustainability-bonds/green-bond-principles-gbp/>.
51. Green Bonds: Country Experiences, Barriers and Options, 2016.
52. Green Bonds: Country Experiences, Barriers and Options, prepared by the Organisation for Economic Cooperation and Development (OECD), International Capital Markets Association (ICMA), Climate Bonds Initiative (CBI), and the Green Finance Committee (GFC) of China Society for Finance and Banking, 2016, (http://unepinquiry.org/wp-content/uploads/2016/09/6_Green_Bonds_Country_Experiences_Barriers_and_Options.pdf).
53. He, F., Deng, Y., Li, W. (2020) Coronavirus disease 2019: What do we know?, Journal of Medical Virology. 14 March 2020; <https://doi.org/10.1002/jmv.25766>.
54. HEP – Croatian Electric Power Industry, <https://www.hep.hr/>.
55. IMF, Position Note on Economic Aspects of Climate Change, 2019. (<https://www.imf.org/external/pubs/ft/fandd/2019/12/pdf/fd1219.pdf>).
56. IMF, WEO, April 2020, (<https://www.imf.org/en/~media/E3E05B38F9F342598E9D36A8B244DE1F.ashx>).
57. IMF, WEO, April 2020, <https://www.imf.org/en/Publications/WEO/Issues/2020/04/14/World-Economic-Outlook-April-2020-The-Great-Lockdown-49306>.
58. Jeremic, Z., Financial Markets and Financial Intermediaries, Singidunum University, Belgrade, 2012, p. 167).
59. MARD, "Report on the work and situation in the administrative areas of the Ministry of Agriculture and Rural Development and administrative bodies", MARD, March 2020.
60. IMF, WEO, April 2020, (<https://www.imf.org/en/~media/E3E05B38F9F342598E9D36A8B244DE1F.ashx>).
61. MONSTAT, Agriculture and Fisheries, Production statistics, Plant production, Data on agricultural land
62. MONSTAT, Directorate for Statistics – MONSTAT, Employment, Labour Force Survey, <https://www.monstat.org/cg/page.php?id=1671&pageid=22>.
63. MONSTAT, Directorate for Statistics – MONSTAT, Tourism, Nautical tourism, <https://www.monstat.org/cg/page.php?id=590&pageid=590>.
64. MONSTAT, Directorate of Statistics – MONSTAT, Tourism, Cruises of foreign ships, <https://www.monstat.org/cg/page.php?id=588&pageid=588>.
65. MONSTAT, Directorate of Statistics of Montenegro, National accounts (www.monstat.org);
66. MONSTAT, <http://www.monstat.org/cg/page.php?id=107&pageid=107>.
67. MONSTAT, Labour Force Survey for 2019.
68. MONSTAT, Statistical Office of Montenegro, Energy, Electric Energy Balance, <https://www.monstat.org/cg/page.php?id=40&pageid=40>.
69. MONSTAT, Statistical Office of Montenegro, Energy, Electric energy balance, <https://www.monstat.org/cg/page.php?id=40&pageid=40>.

70. MONSTAT, Structural statistics, Research on structure of agriculture holdings.
71. MONSTAT, Statistical office, MONSTAT, Energy, Electric energy balance, <https://www.monstat.org/cg/page.php?id=40&pageid=40>.
72. MONSTAT, "Research on the structure of agricultural holdings", MONSTAT, 2016.
73. Marković, S. Dragan, Process and energy efficiency, University Singidunum, Belgrade, 2010.
74. Mratović, D., Possibilities of energy exchange at the point of connection in Montenegro, the current situation and recommendations for improving the environment, UNDP, Podgorica, 27 June 2019.
75. Muhadinović, M., Đurović, G., Bojaj, M.M. Forecasting Greenhouse Gas Emissions and Sustainable Growth in Montenegro: A SVAR Approach, May 2020, Research, Economic Faculty, University of Montenegro, Podgorica.
76. Noh, H.J. (2019) Financial Strategies to Accelerate Green Growth. In: Sachs, J., Woo, W., Yoshino, N., Taghizadeh-Hesary, F. (eds) Handbook of Green Finance. Sustainable Development. Springer, Singapore.
77. OECD, Investing in Climate, Investing and Growth, 2017.
78. Oslo, Stockholm, London, and Shanghai, Mexico Stock Exchange, Luxembourg, Borsa Italiana, Taipei, Johannesburg, Japan Exchange Group, Vienna, Nasdaq Helsinki, Nasdaq Copenhagen, Nasdaq Baltic, The International Stock Exchange, Frankfurt, Moscow and Euronext (<https://www.climatebonds.net/green-bond-segments-stock-exchanges>).
79. Pacca, L., Antonarakis, A., Schröder, P. and Antoniadis, A. (2020) "The effect of financial crises on air pollutant emissions: An assessment of the short vs. medium-term effects," Science of the Total Environment, Vol. 698, January.
80. Pavlovic, V., Draskovic, V, Culic, M, Bucic, A. Guidelines for issuing municipal bonds, Standing Conference of Towns and Municipalities, "EU exchange 4", 2015.
81. Pavlovic, V., 2016. Development of local self-government and financing of investment projects by issuing municipal bonds, Doctoral dissertation, Belgrade, University of Belgrade, Faculty of Political Science.
82. Regulation (EC) No. 1893/2006 of the EP and the Council of 20 December 2006 establishing the statistical classification of economic activities NACE Revision 2 and amending Council Regulation (EEC) No 3037/90 as well as certain EC Regulations on specific statistical domains/REGULATION (EC) No 1893/2006 of the EP and the Council of 20 December 2006 establishing the statistical classification of economic activities NACE Revision 2 and amending Council Regulation (EEC) No 3037/90 as well as certain EC Regulations on specific statistical domains.
83. Regulation (EU) 2016/1011 of the European Parliament and of the Council of 8 June 2016 on indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds. In force as of 1 January 2018.
84. Regulation (EU) 2019/2088 of the European Parliament and of the Council of 27 November 2019 on sustainability-related disclosures in the financial services sector, Date of effect 27 December 2019.
85. Republic Serbia, Fiscal Council, Investment in Environmental Protection: Social and Fiscal Priority, June 2018.

86. S&P: Rating B+, Outlook – Negative, 1 May 2020; Moody's : Rating B1, Outlook – Stable, 6 March 2020. <https://tradingeconomics.com/montenegro/rating>.
87. Sachs, D. Jeffrey, European Green Plan, 13. December 2019, Project Syndicate (<https://www.project-syndicate.org/commentary/europe-green-deal-is-global-beacon-by-jeffrey-d-sachs-2019-12>).
88. SDG Summit – SDG acceleration actions, information note, 2019 (<https://sustainabledevelopment.un.org/sdgsummit>).
89. Selak, G., Municipal bonds as securities, University of Business Academy, Faculty of Law, Faculty of Economics and Justice, Novi Sad, 2016.
90. SID Bank, <https://www.sid.si/>, (SID – Slovenian Export and Development Bank, d.d., Ljubljana).
91. Special Eurobarometer 490, Climate Change, April 2019.
92. State of the Netherlands Green Bond Report 2020, DSTA, Ministry of Finance, 28 May 2020.
93. Stojanovic, D., Djukic, G. International green financing – a comparison of Singapore and Serbia, 9th International Symposium of Natural Resource Management, Book of Proceedings, Faculty of Management, Zajecar, 2019.
94. Streimikiene, D., Ciegis, R. Sustainable energy development and climate change mitigation, in *Sustainable Development Research Advances* (edited by Barton A. Larson), Nova Science Publisher, 2007, pp. 7-67.
95. Sustainalytics, Pre-Issuance Verification Letter, The State of the Netherlands, March 2019.
96. TEG report on Climate Related Disclosures, January 2019; https://ec.europa.eu/info/sites/info/files/business_economy_euro/banking_and_finance/documents/190110-sustainable-finance-teg-report-climate-related-disclosures_en.pdf.
97. TEG, "Taxonomy Technical Report, March 2020, (https://ec.europa.eu/info/sites/info/files/business_economy_euro/banking_and_finance/documents/190618-sustainable-finance-teg-report-taxonomy_en.pdf).
98. TEG, Final Report on Climate Benchmarks and Benchmarks' ESG Disclosures, September 2019.
99. TEG, Handbook of Climate Transition Benchmarks, Paris-aligned Benchmark and Benchmarks' ESG Disclosures, 20.12. 2019. (https://ec.europa.eu/info/sites/info/files/business_economy_euro/banking_and_finance/documents/192020-sustainable-finance-teg-benchmarks-handbook_en_0.pdf).
100. TEG, Report on EU green bond standard, EC Technical Expert Group, 18 February 2019.
101. The Guardian (2020) "Coronavirus pandemic leading to huge drop in air pollution", 23 March 2020. Available at: <https://www.theguardian.com/environment/2020/mar/23/coronavirus-pandemic-leading-to-hugedrop-in-air-pollution>
102. The new credit bank Maribor, <https://www.nkbm.si/>.
103. City of Rijeka, Prospectus, Municipal Bonds, 2006; <https://www.rijeka.hr/wp-content/uploads/2006/02/Odluka-o-zadu%C5%BEivanju-Grada-Rijeke-izdavanjem-municipalnih-obveznica.pdf>.
104. City of Split, Prospectus, Municipal Bonds, 2008, <https://zse.hr/userdocsimages/prospekti/GDST-O-177AProspekt-2082008101826.pdf>.
105. Trajkovic, M. Municipal Bond Guide, BDD I2R Broker a.d. Novi Sad, 2009.

106. Treaty establishing the Energy Community; <http://www.cges.me/regulativa/medjunarodni-prop-isi?download=55:energy-community-treaty> ;
107. Tuskan Sjaus, B., Mihelja Zaja, M. Issuance and Investment Potentials of Green Bonds, Insurance World, 1/2020.
108. UNDP Montenegro, <https://www.me.undp.org/content/montenegro/sr/home.html>.
109. UNDP, EQO, Factor CO₂, Greenhouse gas emissions (GHG emissions) from the tourist sector in Montenegro for 2015, 2017.
110. UNFCCC, Second Biennial Updated Report on Climate Change in Montenegro, April 2019.
111. United Nations in Montenegro and Government of Montenegro (2018). *Unravelling connections: EU Accession and the 2030 Agenda – Case of Montenegro*. Available at : [https://www.un.org.me/Library/SDGs-Post-2015-and-MDGs/2019 Unraveling%20Connections%20-%20EU%20Accession%20and%20the%202030%20Agenda.pdf](https://www.un.org.me/Library/SDGs-Post-2015-and-MDGs/2019%20Unraveling%20Connections%20-%20EU%20Accession%20and%20the%202030%20Agenda.pdf).
112. University of California, Berkeley (2017) Berkeley Sustainable Business and Investment Forum.
113. Vasiljevic, D., Petrovic, D. Report on the conducted ex-ante analysis of effects for the field of circular economy, PLAC III project, Belgrade, January 2020. https://www.ekologija.gov.rs/wp-content/uploads/javne_rasprave/2020/EXANTE-ANALIZA_KONACNO-V4.pdf.
114. Vujošević, M. The impact of Pljevlja Thermoelectric Power Plant on the health of the population, NGO Green Home, 2013.
115. WIIW, The Vienna Institute for International Economic Studies, Monthly report No. 5/2020, 7 May 2020, <https://wiiw.ac.at/may-2020-interim-forecast-update-p-5304.html>.
116. Work Report of the IDF MNE JSC for 2019, Government of Montenegro, 14.5.2020;
117. World Bank, Country Snapshot, April 2020, p. <http://pubdocs.worldbank.org/en/387221588763270800/Montenegro-Snapshot-Apr2020.pdf>.
118. World Bank, press release, 29 April 2020, <https://www.worldbank.org/en/news/press-release/2020/04/29/recession-looms-for-western-balkans-as-countries-respond-to-covid-19>.
119. World Energy Council, Energy for Tomorrow's World – Acting Now!, 2000; <https://www.worldenergy.org/>.
120. World Wide Fund for Nature, Hydropower pressure on European rivers, <https://www.wwf.eu/?uNewsID=356413>.
121. WTTC, Montenegro, <https://wtcc.org/en-gb/Research/Economic-Impact>.

Online sources

- <http://lowcarbonmne.me/me/media-centar/novosti/projekat-razvoj-niskokarbonskog-turizma-u-crnoj-gori>
- <http://www.gov.me/ResourceManager/FileDownload.aspx?rId=333609&rType=2>
- <http://www.lse.ac.uk/GranthamInstitute/faqs/what-is-a-carbon-price-and-why-do-we-need-one/>

- http://www.mrt.gov.me/rubrike/javna_rasprava/224500/Javna-rasprava-o-Nacrtu-Tre-ceg-nacionalnog-izvjestaja-Crne-Gore-o-klimatskim-promjenama.html
- <http://www.sasb-eu.org/sr/priroda/usluge-prirode>
- <https://balkangreenenergynews.com/>
- <https://balkangreenenergynews.com/rs/izgradnja-solarne-elektrane-briska-gora-snage-250-mw-pocinje-2020/>
- <https://blogs.imf.org/2020/04/14/the-great-lockdown-worst-economic-downturn-since-the-great-depression/>
- https://ec.europa.eu/commission/presscorner/detail/en/IP_19_6691
- https://ec.europa.eu/commission/presscorner/detail/hr/ip_20_854
- https://ec.europa.eu/info/business-economy-euro/economic-and-fiscal-policy-coordination/international-economic-relations/macro-financial-assistance-mfa-non-eu-partner-countries_en
- https://ec.europa.eu/info/files/sustainable-finance-teg-taxonomy-tools_hr
- https://ec.europa.eu/info/publications/sustainable-finance-technical-expert-group_en
- https://ec.europa.eu/info/publications/sustainable-finance-teg-taxonomy_en
- https://ec.europa.eu/info/sites/info/files/business_economy_euro/banking_and_finance/documents/benchmarks-regulation-level-2-measures-full_en.pdf
- https://ec.europa.eu/info/sites/info/files/business_economy_euro/banking_and_finance/documents/idd-level-2-measures-full_en.pdf
- https://ec.europa.eu/info/sites/info/files/business_economy_euro/banking_and_finance/documents/benchmarks-regulation-level-2-measures-full_en.pdf
- https://ec.europa.eu/info/sites/info/files/commission-proposal-regulation-european-climate-law-march-2020_en.pdf
- https://ec.europa.eu/info/sites/info/files/commission-proposal-regulation-european-climate-law-march-2020_en.pdf
- https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal_en
- https://ec.europa.eu/info/strategy/priorities-2019-2024/europe-fit-digital-age/european-industrial-strategy_hr
- <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:140:0016:0062:EN:PDF>
- <https://responsiblebusiness.haas.berkeley.edu/events/bsbif.html>
- <https://sharemontenegro.me/crna-gora-izabrana-u-osam-najboljih-mice-destinacija/>

- <https://sustainabledevelopment.un.org/sdgactions>
- <https://www.ceps.eu/ceps-publications/the-european-green-deal-after-corona/>
- <https://www.climatebonds.net/>
- <https://www.climatebonds.net/2019/10/green-bond-issuance-tops-200bn-milestone-new-global-record-green-finance-latest-climate>
- <https://www.efrag.org/>
- <https://www.greenclimate.fund/about>
- <https://www.iea.org/reports/oil-2020>
- <https://www.irfcg.me/en/2014-03-05-12-55-38/2014-03-05-12-56-48>
- <https://www.irfcg.me/en/2017-04-07-12-37-59/programme-for-financing-environmental-protection-energy-efficacy-and-renewable-energy-sources-projects>
- <https://www.irfcg.me/me/>
- <https://www.irfcg.me/me/>
- <https://www.irfcg.me/me/naslovna/14-sample-data-articles/602-predstavljen-novi-program-podrske-poljoprivredi-i-ribarstvu-radi-ublazavanja-posljedica-od-pandemije-izazavane-korona-virusom>
- <https://www.me.undp.org/content/montenegro/en/home/projects/GreenJobs.html>
- <https://www.unpri.org/pri-awards-2019-case-study-planet-emerging-green-one-fund/4826.article>
- <https://www.worldbank.org/en/topic/financialsector/brief/de-risking-in-the-financial-sector>
- www.coronainfo.me

