



CATALYZING COASTAL ADAPTATION FINANCE IN MONTENEGRO

Rapid Capacity Assessment



Mediterranean
Action Plan
Barcelona
Convention



Global Water
Partnership
Mediterranean



SCCF

Enhancing regional
climate change adaptation
in the Mediterranean Marine
and Coastal Areas

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1. Introduction

This report evaluates Montenegro's current strategies and challenges in addressing climate change risks and impacts in its coastal zones through targeted adaptation measures, with specific focus on the coastal region of Kotor Bay, one of the GEF MedProgramme SCCF Project's two pilot sites. Coastal adaptation finance is crucial in supporting these efforts, providing the necessary resources to implement effective adaptation strategies and enhance the resilience of vulnerable coastal areas in the Mediterranean. Montenegro's coastal zones, particularly Kotor Bay, face significant climate change risks, including rising sea levels, the increased frequency of extreme weather events, water scarcity and substantial socio-economic repercussions.

Montenegro's National Adaptation Plan (NAP) conducted a vulnerability analysis of the country's priority sectors in need of climate change adaptation strategies and measures, namely the agriculture, health, tourism, and water sectors. These sectors are also critical areas of vulnerability for Kotor Bay, given its socio-economic and geographical characteristics. The challenges faced by these sectors necessitate urgent adaptation measures to protect socioeconomic stability and environmental sustainability in the country's coastal zones.

This report evaluates the degree to which Montenegro's financial sector and the service and production sectors display the necessary capacities to integrate climate risks into their investment planning. It thus serves as a resource for policymakers, stakeholders, and practitioners involved in climate action and sustainable development in Montenegro. By providing an overview of the country's initiatives, challenges, and opportunities, it seeks to facilitate informed decision-making, collaboration, and resource allocation.

1.1. THE GEF MEDPROGRAMME AND THE SCCF PROJECT

This report was produced in the framework of the GEF MedProgramme SCCF (Special Climate Change Fund) Project, "Enhancing Regional Climate Change Adaptation in the Mediterranean Marine and Coastal Areas," implemented by UNEP/MAP and executed by Plan Bleu/RAC, PAP/RAC, and the Global Water Partnership-Mediterranean over the 2021-2024 period. The MedProgramme, funded by the Global Environment Facility (GEF), is a \$43.4 million assortment of projects that seek to reduce transboundary environmental stresses, strengthen climate resilience, and improve the livelihoods of coastal populations through integrated and sustainable actions. In Montenegro, the SCCF Project's are being developed by the three partners in collaboration with the the Ministry of Tourism, Ecology, Sustainable Development and Northern Region Development of Montenegro, and notably comprise:

- the elaboration of a Coastal Management Plan for Kotor Bay under the MedProgramme's Child Project 2.1, led by PAP/RAC, and supported by Plan Bleu's participatory Climagine foresight methodology;
- a gender-sensitive climate risk assessment of Kotor Bay, and an application of the Coastal Risk Index-Local Scale¹ to the area;
- participatory workshops to identify coastal adaptation solutions for Kotor Bay and prioritize solutions to submit them to economic analysis methods like Cost-Benefit Analysis (CBA) and Multi-Criteria Analysis (MCA);
- capacity-building workshops on Nature-based Solutions for coastal adaptation targeting coastal managers, decision-makers, researchers, the private sector and civil society;
- capacity-building workshops targeting the financial and private (service and production) sectors in Kotor Bay, that aim to build capacity on integrating climate risks into investment decisions and supporting the elaboration of financial tools and mechanisms to support coastal adaptation measures in priority economic sectors in the pilot area.

¹ Satta, A., Venturini, S., Puddu, M., Firth, J., Lafitte, A., 2015. Strengthening the knowledge base on regional climate variability and change: application of a multi-scale coastal risk index at regional and local scale in the Mediterranean. Plan Bleu Report

This report lays the groundwork for further activities related to the last point above, in an effort to support Montenegro in developing and implementing coastal adaptation measures and strategies in its coastal zones.

2. Coastal Adaptation Finance and the Private Sector in Montenegro

Coastal adaptation is a critical yet underfunded aspect of climate action. While most climate funding currently focuses on mitigation, coastal adaptation addresses the unique and complex present and future challenges faced by coastal zones, such as rising sea levels, increased frequency of extreme weather events, and numerous socio-economic impacts. These areas, especially in the Mediterranean, are characterized by diverse uses, users, and pressures, making adaptation a necessity for maintaining ecological and socio-economic stability.

Despite its importance, the financial and private sectors struggle to support coastal adaptation due to a lack of institutional awareness, funding mechanisms, and bankable projects. Beyond traditional “gray” engineering solutions to alleviate specific challenges such as sea-level rise, coastal adaptation involves spatial planning, adaptive management and the use of context-specific, locally adapted Nature-based Solutions (NbS) for ecosystem-based adaptation, which further complicates financing and implementation.

Climate change significantly impacts the financial system by transforming both physical and transitional climate risks into financial risks. Managing these risks strategically is crucial due to their origins in climate-related factors. Banks, as key contributors to financing green economy initiatives, play a substantial role in fostering responsible banking practices and adhering to relevant regulations, thereby contributing to societal climate change objectives.

To effectively fulfill this role, banks must comprehend the present and future ramifications of physical and transitional climate risk factors on their clientele, counterparties, and affiliated organizations. They need to evaluate the financial risks stemming from climate change, actively monitor their exposure to such risks, and implement robust risk management protocols. Identifying sectors most vulnerable to climate risks is essential for analyzing portfolio resilience. This requires the transparent disclosure of high-quality data regarding current exposure levels and ongoing efforts to mitigate greenhouse gas emissions.

Additionally, the insurance and reinsurance sectors play a crucial role in addressing climate risks by integrating these risks into their activities and future-proofing investments against potential impacts. Insurers must assess the exposure of their portfolios to climate-sensitive sectors, develop products that mitigate climate risks, and provide the necessary coverage for climate-related losses. This approach not only protects their clients, but also ensures the stability and sustainability of their own operations.

Assessing the vulnerability of sensitive sectors to climate risks and developing strategies to address them is vital for both short-term planning and long-term sustainability. By adopting proactive measures, banks and insurers can navigate the complex landscape of climate risks and contribute meaningfully to building a sustainable financial ecosystem resilient to the challenges posed by climate change.

Montenegro, highly susceptible to climate-related challenges such as droughts and floods, requires a dynamic and climate-sensitive financial sector to achieve relevant climate change adaptation measures. Effective collaboration between banks, insurers, and other financial entities is essential for enhancing the country's resilience and ensuring sustainable development in the face of climate change. The main climate risks and impacts observed in Montenegro are explored in depth in the [“Gender-sensitive climate risk assessment of Kotor Bay”](#) and [“Application of the Multiscale Coastal Risk Index-Local Scale to Kotor Bay, Montenegro”](#), two outputs of the SCCF project.

Montenegro has developed a robust climate action framework, aligning with international commitments such as the Paris Agreement and developing national strategies, notably its National Strategy for Sustainable Development (NSSD).

These efforts underscore the country's dedication to combat climate change and foster sustainable economic growth through both overarching and sector-specific plans. Over the past years, Montenegro has also undertaken significant capacity-building initiatives to improve resilience to climate change. These include training programs and workshops supported by international organizations, aimed at equipping stakeholders with the skills and knowledge needed to manage climate risks effectively. The country has also shown a strong commitment to mobilizing resources for climate action through various financial mechanisms, such as the EcoFund and the Investment and Development Fund, which have been pivotal in promoting private sector involvement and innovative financing for sustainability projects.

However, Montenegro faces several challenges in integrating climate change considerations into financial practices, such as limited institutional capacity, financing constraints, and regulatory gaps. Nevertheless, these challenges also present opportunities to strengthen public-private partnerships, develop innovative financial instruments, and invest in capacity-building initiatives to drive further progress. To address these challenges and leverage opportunities, this report outlines several recommendations:

1. Intensify promotional activities and educational workshops: raise awareness about the benefits of financial instruments, such as green bonds, for coastal adaptation and sustainable development.
2. Scale-up capacity-building amongst key actors: develop targeted workshops concerning coastal adaptation and private sector involvement, targeting various stakeholders such as government departments and agencies, local businesses, civil society and media representatives.
3. Hire financial experts: employ experts with multidisciplinary knowledge to assist in project preparation and organize training sessions for existing staff in key institutions and companies.
4. Develop key indicators: create sector-specific Key Performance Indicators (KPIs) to measure and track climate change adaptation benefits.
5. Increase institutional capacity and obtain additional funding: enhance the capacity of financial institutions to address climate change adaptation issues and seek additional funds for adaptation efforts.

By implementing these recommendations, Montenegro can enhance its framework for climate action, ensuring a sustainable and resilient future and advancing the country's transition towards a low-carbon economy, while demonstrating its commitment to global climate adaptation and mitigation efforts. By leveraging the insights presented here, stakeholders can identify gaps, prioritize interventions, and mobilize resources effectively, driving collective action towards a greener, more sustainable future for Montenegro and the wider region.

3. Methodology

The methodology employed for compiling this document involved a combination of desktop research and interviews with key stakeholders involved in climate action and sustainable development initiatives in Montenegro. Extensive desktop research was conducted to gather information from a diverse range of sources, including government reports, policy documents, academic publications, project evaluations, and institutional websites. Data and insights were collected on Montenegro's policy frameworks, strategic initiatives, capacity-building efforts, financial mechanisms, and best practices related to climate change adaptation and mitigation. This desktop research provided a foundational understanding of Montenegro's climate action landscape, enabling the identification of key themes, challenges, and opportunities.

Moreover, semi-structured interviews were conducted with a select group of stakeholders, including government officials, representatives from international organizations, NGOs, and experts in climate finance and sustainable development. The interviews were designed to gather qualitative insights, perspectives, and experiences related to Montenegro's climate action efforts, capacity-building initiatives, financing mechanisms, and challenges faced. Stakeholder interviews provided valuable firsthand information, contextual insights, and nuanced perspectives, enriching the analysis and interpretation of desk research findings. In sum, this methodology facilitated the synthesis of diverse perspectives, identification of key trends and challenges, and formulation of informed recommendations for advancing sustainable development in Montenegro.

4. Montenegro's Finance and Private Sectors: Past Trainings, Projects and Capacity Assessments

In our assessment, we found that significant efforts are underway at the macro level to mitigate and adapt to the impacts of climate change while bolstering the country's resilience. Montenegro's National Strategy For Sustainable Development², valid until 2030, is specifically important within the context of advancing the green economy to enhance the competitiveness of Montenegro's economy for sustainable growth and the creation of green jobs. This is a key initiative that involves improving the availability, accessibility, and inclusivity of finance for entrepreneurs and small to medium-sized enterprises. As part of this endeavor, specific measures are outlined, including fostering the development of green banking through:

- Collaborative efforts with banking services to promote the market potential of green entrepreneurship.
- Establishing partnerships and risk-sharing arrangements between public entrepreneurial infrastructure and banks.
- Allocating funds for pre-financing projects eligible for support from EU pre-accession funds.
- Publicly endorsing the socially responsible practices of green banks.

These initiatives aim to facilitate the transition towards a more sustainable and environmentally conscious economic model while supporting innovation and export-oriented enterprises in Montenegro. They also showcase that there are important frameworks at the macro level establishing guiding principles for the participation of the financial sector in the financing of climate change measures. According to Montenegro's Central Bank, essential strategic documents and regulations have been enacted, underscoring the country's commitment to environmental conservation and climate resilience. In that light, another relevant milestone is the alignment with EU standards and requirements, particularly in negotiating Chapter 27 - Environment and Climate Change of the EU accession process, as a key focal point of success and strengthening of Montenegro's macro framework to access climate financing.

Within this overall framework, the EU Environment Partnership Programme for Accession (EPPA) in the Western Balkans and Türkiye³ conducted relevant training which we include in our gap analysis.

The first was a "Regional Workshop on promoting Climate Change Adaptation, risk prevention and management in selecting climate proof measures as part of the River Basin Management Plans" which was funded by the European Union and carried out in December 2021. Montenegro was one of the main beneficiaries, along with Albania, Bosnia and Herzegovina, Kosovo*, North Macedonia, Serbia and Turkey. The development of this training was carried out through the Technical Assistance and Information Exchange Instrument of the European Commission, with the explicit aim of raising awareness of the complexity of current water resource management in the region. This management poses many challenges, aggravated by the growing uncertainties posed by global climate change and the long-term effects of crucial management actions regarding integrated water management, flooding, droughts, and water scarcity, while also conserving biodiversity and sustaining ecological services. Specifically, the threats posed by climate change

² Government of Montenegro (2016). National Strategy for Sustainable Development. Retrieved from [FAOLEX](#)

³ European Commission. (2023). EU Environment Partnership Programme for Accession (EPPA) in the Western Balkans and Turkey. Retrieved from WeBalkans and NIRAS.

to the EU's Water Framework Directive objectives were examined, along with an analysis of how to respond to this challenge by performing a 'climate proof' assessment of the measures. Synergies with the EU accession process for the Western Balkans were analyzed, highlighting how this framework can support environmental improvements and pollution reduction. These synergies also promote climate-proof actions that will advance environmental protection and climate change initiatives, detailed in the EU's accession process, Chapter 27 (Environment and Climate), and included in the Pillar 4 of the EU Green Deal: "Depollution of air, water, and soil."

A second "Regional Workshop on Managing Marine Litter – Sources, policy responses and cost of actions of minimizing the level of plastics and microplastics in the marine and coastal area", funded by the European Union, was carried out in June 2021. Montenegro was one of the main beneficiaries, along with Albania, Bosnia and Herzegovina, Kosovo*, North Macedonia, Serbia and Turkey. Carried out by the Technical Assistance and Information Exchange Instrument of the European Commission, this training aimed to provide advice to strengthen the national capacities of EPPA beneficiaries to effectively address the major challenges relating to the increasing amounts of litter accumulating in the marine environment and to reduce land-based sources of pollution. Guidance on preventing and reducing the level of microplastics in the marine area, in the context of achieving circular economy, and in line with the objectives of the EU Single Use Plastic Strategy, the Marine Strategy Framework Directive, the Water Framework Directive, and the international goals of the Regional Seas Conventions and Action Plans were also provided. The training was in line with relevant support in addressing the urgent environmental needs in the EU enlargement countries, in the context of the 2020 Enlargement Package and the annual assessment of the implementation of fundamental reforms.

The following two tables synthesize the most important findings on "Trainings and Workshops on Climate Adaptation" (cf. Table 1) and "Capacity Assessment" (cf. Table 2).

Table 1: Trainings And Workshops On Climate Adaptation involving Montenegro

Title	Country	Institution	Project	Summary
Regional workshop on promoting climate change adaptation, risk prevention and management in selecting climate proof measures as part of the River Basin Management Plans	<ul style="list-style-type: none"> Montenegro, Albania, Bosnia and Herzegovina, Kosovo*, North Macedonia, Serbia, and Turkey 	<ul style="list-style-type: none"> European Union 	<ul style="list-style-type: none"> EU Environment Partnership Programme for Accession (EPPA) in the Western Balkans and Türkiye 	<ul style="list-style-type: none"> This workshop focused on promoting climate adaptation, risk prevention, and the management of climate-proof measures in river basin management plans, engaging stakeholders from multiple countries in the Western Balkans and Türkiye.
Regional Workshop on Managing Marine Litter – Sources, policy responses and cost of actions of minimizing the level of plastics and microplastics in the marine and coastal area	<ul style="list-style-type: none"> Montenegro, Albania, Bosnia and Herzegovina, Kosovo*, North Macedonia, Serbia, and Turkey 	<ul style="list-style-type: none"> European Union 	<ul style="list-style-type: none"> EU Environment Partnership Programme for Accession (EPPA) in the Western Balkans and Türkiye 	<ul style="list-style-type: none"> Aimed at addressing marine litter, this workshop discussed sources, policy responses, and cost-effective actions to minimize plastics and microplastics in marine and coastal areas.
Improving climate resilience: connecting the European Green Deal and the Green Agenda for the Western Balkans through the UN Sustainable Development Goals and their indicators	<ul style="list-style-type: none"> Montenegro 	<ul style="list-style-type: none"> Montenegrin-Pan-European Union 	<ul style="list-style-type: none"> EU Green New Deal 	<ul style="list-style-type: none"> This initiative connected the European Green Deal with the Green Agenda for the Western Balkans, focusing on resilience-building through the implementation of UN Sustainable Development Goals and relevant indicators.
Gender and Climate Change Adaptation Training program for Montenegro	<ul style="list-style-type: none"> Montenegro 	<ul style="list-style-type: none"> UNDP and TRATOLOW 	<ul style="list-style-type: none"> Enhancing Montenegro’s capacity to integrate climate change risks into planning and TRATOLOW 	<ul style="list-style-type: none"> This training program aimed to integrate gender considerations into climate change adaptation strategies, enhancing Montenegro’s capacity to manage climate risks with a gender-sensitive approach.
Dialogue for Development seminar series	<ul style="list-style-type: none"> Montenegro 	<ul style="list-style-type: none"> UNDP and TRATOLOW 	<ul style="list-style-type: none"> Enhancing Montenegro’s capacity to integrate climate change risks into planning and TRATOLOW 	<ul style="list-style-type: none"> A series of seminars designed to foster dialogue on sustainable development and climate adaptation, addressing the integration of climate risks into national and local planning frameworks.
Two-day training workshop on Monitoring and Indicators for Adaptation	<ul style="list-style-type: none"> Montenegro 	<ul style="list-style-type: none"> UNDP and TRATOLOW 	<ul style="list-style-type: none"> Enhancing Montenegro’s capacity to integrate climate change risks into planning and TRATOLOW 	<ul style="list-style-type: none"> This workshop provided training on the development and use of monitoring and indicators for adaptation, aimed at improving the assessment and tracking of adaptation efforts in Montenegro.
Three training workshops focused on developing green business skills were conducted.	<ul style="list-style-type: none"> Montenegro 	<ul style="list-style-type: none"> UNDP within the project of Eco Business Center Cetinje 	<ul style="list-style-type: none"> Green Jobs Project 	<ul style="list-style-type: none"> These workshops focused on developing green business skills among local entrepreneurs, supporting the creation of sustainable business practices and green job opportunities.

Table 2: Capacity Assessment: Coastal Adaptation Finance in Montenegro

What was assessed?	Project and Institution	Gaps and Needs Identified, Critical Assessments	Identified Solutions
<p>Capacity of public and private sectors for climate change adaptation planning and implementation</p> <p>Training and capacity-building needs of staff involved</p>	<ul style="list-style-type: none"> Enhancing Montenegro's Capacity to Integrate Climate Change Risks into Planning (UNDP) 	<ul style="list-style-type: none"> Weak systemic coordination and cooperation in climate change adaptation identified Capacity assessments varied from low to baseline No strong capacities found to respond to climate challenges among assessed institutions 	<ul style="list-style-type: none"> Support the strengthening of data sets regarding climate change impacts through development of 4 vulnerability assessments across critical sector: water, tourism, agriculture, and health. Developed an initial NAP draft and an initial draft of adaptation measures for Montenegro. Support the formation and constitution of the MCSSD working groups mandated with climate change and SDG financing.
<p>Private and Public Sector capacity to access climate finance</p>	<ul style="list-style-type: none"> 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 (UNDP) 	<ul style="list-style-type: none"> Market size limitations hinder access to Green bond market Limited promotion and development of green bonds despite increasing interest Municipalities lack credit ratings compared to the state Montenegro assessed as "moderately prepared" in financial services for EU Acquis implementation Need for improved expertise in financial and operational management, especially at local government level Stable fiscal revenues and constructive central government supervision are essential Crucial to enhance the quality of financial reporting 	<ul style="list-style-type: none"> Intensified promotional activities and educational workshops are needed to highlight the advantages of green bonds for sustainable development. Educational workshops should target various stakeholders, including departments, agencies, local businesses, civil society, and media representatives. Project preparation requires hiring financial experts with multidisciplinary knowledge related to environmental impact indicators and organizing training for existing staff.
<p>Evaluation of the ability of the Investment and Development Fund of Montenegro to include climate finance in their portfolio</p>	<ul style="list-style-type: none"> Study and road map for green business in Montenegro (UNDP) "Enhancing Montenegro's Capacity to Integrate Climate Change Risks into Planning" for public sector institutions (UNDP) Semi-structured interviews 	<ul style="list-style-type: none"> Lack of clear criteria linking approved loans to environmental impact IDF actively develops financing instruments for climate change, with strong leadership support Basic capacity in leadership, organization, governance, and policy Significant progress in basic capacities for addressing Climate Change Adaptation (CCA) Relatively high scores in financial resources and knowledge management Lower scores in human resources and design/implementation of CCA services Limited access to and use of CCA data within the IDF Recommendations for improvement include better availability and use of CCA data, strategic planning, and program design/implementation/monitoring Need for improved knowledge management and communication, including external stakeholder accessibility Opportunities for capacity development through ongoing cooperation with international partners Strength in existing ties with the productive sector. 	<ul style="list-style-type: none"> Identification of key indicators for measuring climate change adaptation benefits. Development of sector and project specific KPIs. Measurement of baselines and in general adequate data usage.
<p>Evaluation of EcoFund's ability to include climate finance in their portfolio</p>	<ul style="list-style-type: none"> "Enhancing Montenegro's Capacity to Integrate Climate Change Risks into Planning" for public sector institutions (UNDP) Semi-structured interviews 	<ul style="list-style-type: none"> Close to strong capacity in monitoring and evaluation due to well-elaborated internal procedures Basic capacity detected for knowledge management Governance, policy, and human resources capacities approaching basic levels Informally articulated mandate for addressing Climate Change Adaptation (CCA) issues by the Eco-fund Significant gap in environmental data collection, systematization, and maintenance Lack of information system poses obstacle for CC adaptation measures National list of environmental indicators lacks adaptation inclusion Strength in existing ties with productive sector 	<ul style="list-style-type: none"> Future trainings aiming to increase the Fund's capacity to address CCA issues should be linked to its basic activities, possibly looking into integration of adaptation criteria into the Fund's financing programmes as well as into the ways to attract more funds for adaptation.

<p>Climate Adaptation Finance from the private sector</p>	<ul style="list-style-type: none"> Central Bank of Montenegro working paper No. 33 on Climate Change in the financial sector. 	<ul style="list-style-type: none"> Most banks neglect monitoring exposure to climate and environmental risks Inadequate policies and procedures for analyzing climate change risks in loan approval Some banks provide green products and energy efficiency loans 	<p>Continuous engagement by high level regulatory bodies, such as the Central Bank of Montenegro with the critical players of Montenegro’s financial system. Specifically foster collaboration with potential international partners that might enhance the availability of financing for climate change action, and innovation in the supply of products and services to Montenegro’s economy</p>
<p>Actively engaged startups and established companies in adopting green business practices.</p>	<ul style="list-style-type: none"> Green Jobs Project - Eco Business Center Cetinje (Montenegro) 	<ul style="list-style-type: none"> Need for comprehensive services, including business registration assistance, business plan development, mentoring, advisory services, and more, catalyzing a culture of sustainability within Montenegro's business community. 	<ul style="list-style-type: none"> 50 entrepreneurs, including at least 20% women, were supported through the Eco Business Center Cetinje. Over 120 users received valuable advice. Three training workshops focused on developing green business skills were conducted. 100 stakeholders from public institutions, industry experts, and academia were engaged. 300 entrepreneurs benefited from valuable training and support. Legislative frameworks for the installation of photovoltaic systems were improved. 11 designs of photovoltaic systems.

4.1. KEY FRAMEWORKS AND EUROPEAN INTEGRATION PROJECTS

4.1.1. EU Green Deal

The European Green Deal (2019) (3) represents a potential development strategy for Montenegro, which applied for EU membership in December 2008. It was granted candidate country status in December 2010, and accession negotiations were opened in June 2012. The Green Deal aims to foster a transition toward a fairer and more prosperous society with a modern, resource-efficient, and competitive economy. The objectives include reducing greenhouse gas emissions and decoupling economic growth from resource consumption, in an effort to safeguard and enhance Montenegro's human, social, natural, and economic capital while contributing to the achievement of the United Nations Sustainable Development Goals. Key components of the European Green Deal encompass:

1. Enhanced EU climate targets for 2030 and 2050, facilitated by the implementation of the new European Climate Law, which aims for Europe’s climate neutrality by 2050.
2. Promotion of clean, affordable, and secure energy sources.
3. Development of an industrial strategy promoting a clean and circular economy.
4. Promotion of sustainable and intelligent mobility solutions.
5. Integration of sustainability principles into the Common Agricultural Policy through the “Farm to Fork” strategy.
6. Conservation and protection of biodiversity.
7. Pursuit of a zero-pollution ambition for a non-toxic environment via the Chemical Strategy for Sustainability.
8. Integration of sustainability across all EU policies.
9. Leadership in global climate negotiations by the EU, including advocating for the European Green Deal internationally and in enlargement countries through initiatives such as the Green Agenda for the Western Balkans.
10. Collaboration through the European Climate Agreement and Eighth Environmental Action Programme to address climate challenges collectively. Montenegro aims to create a development framework by 2050 according to the European framework laid out by the European Green Deal.

In May 2023, the Montenegrin Pan-European Union organized the international conference “Improving climate resilience: connecting the European Green Deal and the Green Agenda for the Western Balkans through the UN Sustainable Development Goals and their indicators” in May 2023 in Podgorica, with the support of the Central

European Initiative (CEI), and was also supported by the German Society for International Cooperation (GIZ) and the Embassy of France in Montenegro. This conference specifically aimed to increase local capacities in achieving homogenization with the EU's Green Deal Strategy. Specifically, the individual experiences of the CEI Member States in connection with the application of sustainable development indicators in the European Green Deal were discussed in depth.

4.1.2. The Transition Towards Low Emissions Project (TRATOLOW)

Another relevant source of capacity-building lies in the work conducted by the Transition Towards Low Emissions project ([TRATOLOW](#))⁴ in Montenegro. The focus of this project is to enhance regional cooperation and improve inter- and intra-national cooperation on climate change mitigation and adaptation. The project builds on earlier work under the Regional Environmental Network for Accession (RENA), the Environment and Climate Regional Accession Network [ECRAN](#), the Regional Implementation of Paris Agreement Project [RIPAP](#) and the EU Environment Partnership Programme for Accession [EPPA](#), amended in line with the current level of preparedness for the EU accession of each country.

Particularly important is TRATOLOW's Working Group on Adaptation, which aims to support the national and regional adaptation planning and actions in Montenegro. The Working Group is led by an adaptation expert in coordination with the Contracting Authority representatives and National Focal Points, and is targeting members of the public administration responsible for environment and climate policies. Due to the cross-cutting multidisciplinary and interdisciplinary nature of climate change adaptation, this working package involves different sectoral representatives from other public administrations, other agencies, donors and projects in the region as well as NGOs, civil society organizations and private sector where relevant and agreed.

TRATOLOW, in collaboration with the "Enhancing Montenegro's capacity to integrate climate change risks into planning"⁵ project, has led to the establishment of an adaptation focal in the Governments of Montenegro. Furthermore, these projects have resulted in the drafting of a "Gender and Climate Change Adaptation Training Program" for Montenegro. and the development of a "Dialogue for Development Seminar Series for Adaptation". These trainings included actors across several key sectors. Capacity-building on the results of the vulnerability analysis of the priority sectors for adaptation (agriculture, health, tourism and water sectors) was conducted during March 2023, followed by a training workshop on monitoring and indicators for professionals and decision-makers working in these sectors. In addition, the participants contributed to the mapping and prioritization of adaptation measures to climate change.

4.2. MONTENEGRO'S NATIONAL ADAPTATION PLAN (NAP) AND RELEVANT PROGRAMS

The "Enhancing Montenegro's Capacity to Integrate Climate Change Risks into Planning" project is led by the United Nations Development Programme (UNDP), and aims to improve Montenegro's institutional capacity for long-term adaptation planning, while contributing to the ongoing development of [Montenegro's National Adaptation Plan](#) (NAP). The project aims to:

- (1) enhance institutional coordination and capabilities;
- (2) increase climate information and identify adaptation measures, and;
- (3) determine financial needs and resources for adaptation investments.

⁴ European Commission. (2021). TRATOLOW: Transition Towards Low Emissions and Climate-Resilient Economy in the Western Balkans and Türkiye. Retrieved from [TRATOLOW Network](#) and [Energy Community](#).

⁵ United Nations Development Programme (UNDP). (2020). Enhancing Montenegro's capacity to integrate climate change risks into planning – National Adaptation Plan (NAP) project. Retrieved from [UNDP](#) and [NAP Montenegro](#).

As part of the project, UNDP conducted a recent capacity gap assessment of key government stakeholders, the private sector, and civil society organizations, focusing on their ability to adapt to climate change and promote green development in the country.

The evaluation process included more than 300 actors and institutions operating at the national and local level as well as public and private companies active in various fields. The assessment aimed to determine the public sector's ability to plan and implement climate change adaptation processes, while analyzing the need for capacity building and training of staff. Within this research, the institutions were evaluated concerning seven elements defined by the Capacity Assessment Tool, specifically designed for the implementation of this activity in Montenegro. The results of the initial analysis indicated a general weak systemic coordination and cooperation in climate change adaptation. Capacity assessments ranged from low to baseline, while strong capacities to respond to climate challenges were not identified for any of the assessed institutions.

4.2.1. Access to Finance - Green Bonds

The UNDP, as an executive agency of the Global Environment Facility (GEF), has collaborated with the Government of Montenegro, particularly the Ministry of Sustainable Development and Tourism, to implement the "Growing Green Business in Montenegro" project (2018–2021)⁶. This initiative aimed to cultivate a conducive business environment and encourage private-sector investment in low-carbon and environmentally friendly economic activities in Montenegro.

Key components of the project included:

1. Development of incentive policies and financial instruments to stimulate investment and mitigate financial risks.
2. Establishment of policies and services supporting green start-ups and small to medium-sized enterprises (SMEs) in sectors like agriculture, tourism, and energy.
3. Creation of the Eco Business Center in Cetinje to provide support and training for entrepreneurs in developing green businesses.
4. Enhancement of green business financing capabilities within the Investment and Development Fund, along with the implementation of a performance-based payment scheme.

Furthermore, the project includes efforts to raise awareness about green business practices and financing opportunities among stakeholders. This initiative underscores a commitment to involving the private sector as a key stakeholder in climate change actions in the country. By fostering green entrepreneurship and providing financial support, the project aims to drive sustainable economic growth while mitigating environmental impacts. It demonstrates a proactive approach towards engaging businesses in climate-resilient practices and promoting green investments as drivers of Montenegro's sustainable development agenda.

We will analyze certain aspects of this project, as it presents a best case study for Montenegro and the region in several aspects, since it enhanced capacities in both the financial and productive sectors, with a clear focus on assessing the current capacities in the country, and building on said capacities through trainings, project development and framework strengthening.

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"⁷ (7) is thus also a document of interest, as it is part

⁶ United Nations Development Programme (UNDP). (2018). Growing Green Business in Montenegro. Retrieved from [UNDP](#) and [Global Environment Facility \(GEF\)](#).

⁷ United Nations Development Programme (UNDP). (2018). 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. Retrieved from [UNDP](#).

of the major UNDP project “Growth of green business in Montenegro” UNDP project (2018–2021). This report assessed Montenegro’s capacity to access a potential green bond⁸ market, among other relevant assessments of the financial and private sectors in Montenegro. An important conclusion derived from this project is that Montenegro has been deemed to possess an adequate institutional framework for the implementation of the EU Acquis in Financial services, yet is deemed “moderately prepared” in the area of financial services. Overall, the report concludes 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, yet are constraints that complicate the development of green bond markets remain, and were identified as the following:

- The institutional framework in Montenegro, including legislative and infrastructure support from the Montenegro Stock Exchange, is not a hindrance to the development of green bonds. However, the market size, including the number of potential investors and issuer strength, poses significant restrictions.
- Improved expertise in financial and operational management, particularly at the local government level, stable fiscal revenues, and constructive central government supervision, are necessary.
- Despite increasing interest in green bonds, there has been little promotion and development of these instruments. Intensified promotional activities and educational workshops are needed to highlight the advantages of green bonds for sustainable development.
- Educational workshops should target various stakeholders, including departments, agencies, local businesses, civil society, and media representatives.
- Project preparation requires hiring financial experts with multidisciplinary knowledge related to environmental impact indicators and organizing training for existing staff.
- Enhancing the quality of financial reporting is crucial.
- The Post Covid-19 crisis has reduced potential issuer revenues, particularly for municipalities, and has diminished enthusiasm for green bonds. Municipalities lack credit ratings, unlike the state.

In this context, the Green Jobs Project, launched in 2018, embarked on a pioneering mission in Montenegro to champion carbon-neutral practices and sustainable resource management. With a dual focus on policy development and financial accessibility for green enterprises, it aimed to combat climate change, mitigate disaster risks, and cultivate a sustainable business landscape.

In the policy realm, extensive studies and roadmaps were developed to shape green business policies and incentives, especially within critical sectors like agriculture, tourism, and energy. Additionally, the project allowed for regulatory enhancements to the EcoFund, broadening its funding spectrum and thereby empowering more businesses. The EcoFund, which operates as a limited liability company, is financed through state budget contributions, ecological fees, donations, loans, and international partnerships, representing best practice and catalyzing collaboration between various critical stakeholder sectors, including the private sector. This initiative will be reviewed in depth in the following chapter of this document.

Financially, the Green Jobs project established frameworks within the Investment and Development Fund (IDF) to offer credit support. It notably introduced innovative financing mechanisms, including a performance-based payment scheme, previously unseen in Montenegro.

Administratively, a mentoring program provided vital support to aspiring green businesses, covering legislation, accounting, strategic planning, product development, and innovation, thus facilitating holistic business operations. In collaboration with diverse businesses, the Green Jobs Project highlighted the significance of private sector involvement in advancing sustainable practices and economic growth, embodying a steadfast commitment to nurturing a green economy.

In 2020, in conjunction with the Eco Business Center Cetinje, the project actively engaged startups and established companies in adopting green business practices. A total of 247 clients received comprehensive services, including

⁸ 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 refinance “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.

business registration assistance, business plan development, mentoring, advisory services, and more, catalyzing a culture of sustainability within Montenegro's business community.

Moreover, the Green Jobs Project prioritized training and capacity building, achieving remarkable milestones:

- 50 entrepreneurs, including at least 20% women, were supported through the Eco Business Center Cetinje.
- Over 120 users received valuable advice.
- Three training workshops focused on developing green business skills were conducted.
- 100 stakeholders from public institutions, industry experts, and academia were engaged.
- 300 entrepreneurs benefited from valuable training and support.
- Legislative frameworks for the installation of photovoltaic systems were improved.
- 11 designs of photovoltaic systems, with an estimated investment of 1.5 million USD and 1.5 MWp production capacity, were developed, resulting in an estimated annual reduction of 1205.4 tons of CO2 emissions.

These accomplishments underscore the project's dedication to fostering entrepreneurship, promoting gender equality, and advancing sustainable practices across various sectors, empowering stakeholders to embrace eco-friendly business models and contribute to carbon emissions reduction in Montenegro. Such efforts, although not directly related to coastal adaptation, are crucial in laying the institutional, financial, legislative and business groundwork for adaptation policies and projects to take root in Montenegro in the future.

4.2.2. Access to Finance - the EcoFund

Within this macro project, the establishment of the Environmental Fund (EcoFund)⁹ in Montenegro represents a significant initiative aimed at promoting sustainability and environmental stewardship across the country and is one of the best practices identified in this report. As part of its commitment to meeting obligations under Chapter 27 – Environment and Climate Change, the Government of Montenegro recognized the need for a dedicated fund to support environmental projects and initiatives, leading to the creation of this fund, which presents a collaboration between different critical stakeholder sectors, including productive areas of the economy which are private sector-led.

One of the key objectives of the EcoFund is to mobilize the private sector towards sustainability. By providing financial support and incentives for environmental initiatives, the EcoFund encourages businesses to adopt environmentally friendly practices, invest in renewable energy sources, and reduce their carbon footprint. This not only benefits the environment, but also creates opportunities for innovation, job creation, and economic growth within the private sector.

The EcoFund operates as a limited liability company and is funded through various channels, including contributions from the state budget, ecological fees, donations, loans, and international partnerships. This diverse funding model ensures that the EcoFund has the resources necessary to finance a wide range of projects focused on environmental preservation and sustainable development.

Through its activities, the EcoFund aims to catalyze a shift towards a more sustainable and resource-efficient economy in Montenegro. It finances programs, projects, and activities at both national and local levels. Moreover, the EcoFund plays a crucial role in facilitating collaboration between government agencies, non-governmental organizations, academic institutions, and the private sector. By bringing together stakeholders from various sectors, the EcoFund fosters partnerships and knowledge-sharing initiatives that contribute to the overall sustainability agenda in Montenegro. In addition to its environmental conservation efforts, the EcoFund also emphasizes the importance of regulatory measures and incentives for pollution reduction. By encouraging responsible behavior and incentivizing sustainable practices, the EcoFund aims to create a culture of environmental consciousness and accountability across Montenegro.

⁹ Government of Montenegro. (2018). Environmental Protection Fund (EcoFund). Retrieved from [EcoFund Montenegro](#) and [Balkan Green Energy News](#).

Overall, the establishment of the EcoFund represents a proactive step towards addressing environmental challenges and promoting sustainable development in Montenegro. By providing financial support, fostering collaboration, and incentivizing environmental stewardship, the EcoFund is helping to build a greener, more resilient future for the country, including in terms of climate change adaptation.

4.2.3. Best Practice Case Study: Innovative Projects for Climate Change Measures in Montenegro's Tourism Sector¹⁰

Overview

Within Montenegro's efforts to combat climate change and promote sustainable tourism, innovative investment projects have been co-financed to reduce CO₂ emissions in the tourism sector. The initiative aimed to foster energy efficiency, promote renewable energy sources, and enhance collaboration between stakeholders.

Implementation

The Chamber of Economy of Montenegro facilitated three Calls for proposals, encouraging innovative investment projects that actively reduce CO₂ emissions in tourism. Key focus areas included:

- Improving energy efficiency and adopting renewable energy sources.
- Promoting sustainable public transport systems.
- Increasing awareness about CO₂ emission reduction in tourism.
- Facilitating access to financial resources.
- Strengthening cooperation between local administrations, the private sector, and NGOs.

Conditions

Projects received up to 25% co-financing of their total cost, with a maximum support limit of €150,000. Eligibility criteria encompassed various aspects such as tourism development, CO₂ emission reduction, financial readiness, documentation completeness, implementation period, geographical area, and gender equality.

Results

- 32 innovative projects received support, totaling €10,000,000, with €757,727 co-financed.
- Projects spanned 11 municipalities and prioritized coastal and northern regions.
- Eco certified tourism accommodations in Montenegro (EU Ecolabel and Travelife certification), specifically 3 within Kotor Bay.
- Support for the development of the Polycentric Sustainable Urban Mobility Plan for Kotor Bay, aiming for a more accessible, secure, clean, and environmentally friendly urban transport system for the area. The plan includes several initiatives to promote low and no-carbon opportunities:
 1. Solar-Electric or hybrid intercity boat and ferry service: introduction of solar-electric or hybrid boats and ferries to provide environmentally friendly transportation options within Kotor Bay.
 2. Electric shuttle buses: increased use of electric shuttle buses to reduce emissions and provide clean public transportation.
 3. Biogas and/or biodiesel vehicles: utilization of biogas or biodiesel as alternative fuels for transportation, further reducing the carbon footprint.
- The implemented technologies led to the reduction or avoidance of 15,343 tons of CO₂ emissions.
- The initiative created 20 green jobs and produced Monitoring, Reporting, and Verification (MRV) reports for the supported projects.

¹⁰ United Nations Development Programme (UNDP). (2018). Montenegro Makes Low Carbon Tourism Possible. Retrieved from [UNDP](#) and One Planet Network.

This initiative exemplifies effective public-private collaboration, incentivizing sustainable practices and fostering environmental stewardship within Montenegro's tourism sector. It sets a precedent for other regions seeking to address climate change while promoting economic growth and sustainability.

4.2.4 Currently Available Calls for Financing Sustainability in the Production Sector

As of February 19, 2024, the EcoFund is managing several funding lines and calls for proposals aimed at promoting environmental protection and sustainable practices. Here we present recent and current funding opportunities:

1. Public Competition for Charging Stations for Electric and Hybrid Vehicles		
Status	Description	Date Started
Calls for Proposals in Progress	This public competition aims to allocate environmental protection fund subsidies to businesspeople, entrepreneurs, and the public sector for the purchase of charging stations for electric and hybrid vehicles.	February 12, 2024
2. Subsidies for Photovoltaic Systems and Central Heating Systems		
Status	Description	Date Started
Calls for Proposals in Progress	This initiative focuses on allocating subsidies for the implementation of projects involving the procurement and installation of photovoltaic systems and central heating systems in local self-government facilities.	December 18, 2023
3. Energy Efficiency Measures for Businesses and Entrepreneurs		
Status	Description	Date Started
Calls for Proposals in Progress	The public competition aims to allocate subsidies for the implementation of energy efficiency measures intended for business people and entrepreneurs.	December 8, 2023
4. Subsidies for Electric and Hybrid Vehicles in the Public Sector		
Status	Description	Date Started
Calls for Proposals in Progress	This competition focuses on allocating environmental protection fund subsidies for the purchase of electric and hybrid vehicles (categories L, M1, and N1) in the public sector.	December 8, 2023

These funding opportunities reflect the EcoFund's current support for projects that promote sustainability, energy efficiency, and environmental protection across various sectors, including transportation, energy, and public infrastructure. It also highlights the critical role of the EcoFund as a best practice within Montenegro in both increasing

access to finance for the private sector, but also, reinforcing the current capacities in the Montenegrin economy and society to achieve climate change mitigation and adaptation measures.

4.2.5. The Investment and Development Fund of Montenegro and Climate Action

Another example of local best practices in the field of financing for climate action is the Investment and Development Fund of Montenegro (IDF), which was established to encourage sustainable economic development in Montenegro through loans, guarantees, and other activities. The Government of Montenegro initiated this fund to support economic priorities efficiently. The IDF has offered various credit lines and incentives to foster economic growth. Recently, the European Investment Bank (EIB) and its branch, EIB Global, signed a €50 million climate credit line with the IDF for Montenegrin SMEs, marking the second such agreement since 2021. Since 2020, EIB Global has invested €150 million in the IDF to aid in the recovery and decarbonization of Montenegro's economy.

The credit line known as the "Programme for financing projects for environmental protection, energy efficiency, and renewable energy sources"¹¹ was primarily directed towards green businesses. Its objective was to stimulate cleaner production, reduce emissions, encourage the use of renewable energy sources, promote environmental protection projects, achieve energy efficiency, recover landfills, manage waste, and implement national energy programs. Loans were designated for investments in land, buildings, equipment, and devices, with up to 30% of the total loan amount allocated for investment in working capital, exclusively for companies as loan users. If financed by the European Investment Bank (EIB), the funds could not cover VAT expenses. Municipalities, cities, companies majority-owned by local governments, public companies, and other legal entities were eligible beneficiaries, provided they had no tax liabilities arrears certified by the Tax Administration. The IDF executed this program through direct lending to loan users and financing end-users through commercial banks with established relations. Loans approved under this credit line and financed by the EIB were subject to interest rates 0.5%–0.7% lower than those determined otherwise. Aside from this specific credit line, there are specific credit lines for other productive sectors of the economy, specifically tourism, agriculture and other small business.

An assessment of the capacities of the IDF by the Study and Roadmap for Green Business in Montenegro finds that 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. Specifically; there is no economic assessment of the environmental impact of loans. Indeed, there are no clear (binding) criteria that would establish a direct link between the approved loan and the environmental impact achieved by its implementation. For example, the criteria should include measurable outcomes such as:

- Reduction of GHG emissions and environmental pollution
- Improvement in waste management
- Reduction in energy consumption
- Increase in the share of renewable energy sources
- Enhancement of energy efficiency
- Reduction in water consumption

These criteria would provide a clear connection between the financial support granted and the environmental benefits achieved.

Moreover, the capacity gap assessment report conducted an assessment titled "Enhancing Montenegro's Capacity to Integrate Climate Change Risks into Planning" for public sector institutions, found that the Investment and Development Fund (IDF) actively develops financing instruments for climate change, including adaptation, with strong support from its leadership. Leadership and organization, as well as governance and policy capacity, received the

¹¹ Investment Development Fund of Montenegro (IDF). (2021). Programme for Financing Projects for Environmental Protection, Energy Efficiency, and Renewable Energy Sources. Retrieved from [Montenegro increases climate ambition: Cut emissions by 35% within a decade and Energy Efficiency and Renewable Energy Project](#).

highest scores (1.94 and 1.9 respectively), indicating basic capacity in these areas. The overall score of 1.78 in this systematic assessment suggests significant progress in basic capacities for addressing climate change adaptation. Financial resources (1.83) and knowledge management (1.7) also scored relatively high. However, human resources and the design and implementation of climate change adaptation services scored lower. Access to and use of adaptation data was limited, with poor availability of adaptation-related data within the IDF.

A semi-structured interview with the consultant who developed this assessment led to critical insights as to the areas for improvement and potential recommendations for strengthening the IDF. Improvements are necessary in availability and use of adaptation data, strategic planning, and the ability to design, implement, and monitor/evaluate adaptation programs. Better knowledge management, including improved accessibility for external stakeholders and communication, is also required. The ongoing cooperation with international partners offers opportunities for capacity development to address identified gaps.

Moreover, in a semi-structured interview with the personnel from IDF, it was stated that some of these weaknesses are currently being tackled by internal work within the institution. Critical key indicators to evaluate sustainability across sectors are being selected, with the specific aim to develop relevant baselines that allow for measurement of improvements. Key Performance Indicators have been defined, yet they have not been implemented. These conclusions are in line with the conclusions derived from our desktop research.

4.3. ASSESSMENT OF MONTENEGRO'S FINANCIAL SECTOR

To ensure the translation of relevant financial measures into effective financing for climate action in the real sector, it is essential to assess the inclusion of climate change concerns by private players in the financial sector. This desk-based research focuses on the current status of climate finance in Montenegro at the micro level. By analyzing surveys conducted with all banks in Montenegro in 2021 by the Central Bank of Montenegro¹², we arrive at certain conclusions about the individual actors in the financial sector. A table presenting the institutions in the financial sector is included in Annex I.

Montenegro's financial institutions play a pivotal role in aligning with sustainability and climate action objectives. While the surveys conducted by the Central Bank of Montenegro in 2021 revealed that most banks have yet to fully integrate climate change concerns into their risk assessments and loan approval processes, there is an emerging commitment towards green finance, highlighted by some banks offering green products and energy efficiency loans.

Montenegro's financial sector, comprising insurance companies, re-insurance entities, and banks, showcases a varied approach to sustainability. Institutions such as UNIQA neživotno osiguranje A.D. (an Allianz partner office), Triglav, Generali (an AXA partner company), Swiss Re, and Europa Re in the insurance and re-insurance sectors, alongside banks such as OTP Group, Crnogorska komercijalna banka AD Podgorica (a member of OTP Group), and ERSTE Bank AD Podgorica, underscore the sector's breadth. These entities, through their diverse operations, contribute to the financial ecosystem's resilience and responsiveness to climate-related challenges.

Particularly notable is UNIQA Group's strategic commitment to sustainability, which serves as a benchmark for other financial institutions in Montenegro. With the initiation of UNIQA 3.0 "Seeding the Future" in 2020, UNIQA has embedded sustainability across its operational framework, targeting climate neutrality in Austria by 2040 and in the CEE region by 2050, in line with the Paris Agreement's climate goals. The sustainability strategy of UNIQA is anchored in environmental, social and governance (ESG) investment policies, product policy enhancements, sustainable operational management practices, transparent reporting mechanisms, and proactive stakeholder engagement. The Group's efforts towards purchasing eco-label green electricity, enhancing energy efficiency in buildings, expanding

¹² Kilibarda, M. (2021). Working Paper No. 30: Climate Change and the Financial Sector - With the Focus on the Banking Sector. Central Bank of Montenegro.

photovoltaic capacities, transitioning to electric vehicles, and maintaining a coal-free investment portfolio exemplify a comprehensive approach to integrating sustainability into core business practices.

This broader engagement with sustainability among Montenegro's financial institutions, spearheaded by UNIQA's initiatives, highlights a critical shift towards recognizing and addressing environmental and climate risks. The inclusion of green finance products and the adoption of energy efficiency measures signal a positive trend towards sustainability within the sector. However, for this momentum to translate into significant climate action in the real sector, including in terms of adaptation, there is a need for a widespread adoption of rigorous policies, procedures, and risk assessment frameworks that account for climate change.

For Montenegro to achieve a smoother and more effective integration of climate concerns into its financial sector, there must be enhanced capacity-building initiatives, improved regulatory frameworks, and a more robust commitment to sustainable financial practices. This will enable the financial sector to better support the country's overall climate resilience and sustainable development goals.

The working study "The Impact of Climate Change on Key Macroeconomic Indicators in Montenegro"¹³ explores the profound effects of climate change on Montenegro's economy. As extreme weather events caused by climate change become more frequent and severe, understanding their economic impacts is crucial for effective policy-making.

This study focuses on the transmission channels through which weather shocks affect macroeconomic variables such as inflation, industrial output, and unemployment. Using monthly data from 2001 to 2023, the study finds that extreme drought increases inflation and reduces industrial output due to the reliance on hydropower, while heatwaves negatively impact employment. Conversely, abundant precipitation and strong winds can have short-term positive effects on industrial output, particularly in electricity production. These findings highlight the sensitivity of economic indicators to climate change and underscore the need for further research into price aggregates and inflationary mechanisms linked to climate effects in Montenegro, showcasing the strength in applied research in the context of financial policymaking.

The working paper underscores the importance of fostering a green transformation of key economic activities and integrating climate change adaptation into policy-making. This includes enhancing institutional frameworks, expanding technical capacities, and improving the information base for decision-making. Policymakers are urged to promote sustainable practices and technologies to mitigate the adverse effects of climate change on the economy.

5. Zoom In on Kotor Bay

Kotor Bay in Montenegro is a prime example of a Mediterranean coastal region facing significant climate risks. As illustrated by Plan Bleu's "Gender-sensitive climate risk assessment of Kotor Bay, Montenegro", the main climate threats in this area include rising temperatures, decreased annual precipitation, increased occurrence of flash floods, droughts, and sea-level rise. Each decade since 1970 has seen warmer temperatures, with projections indicating increases of up to 2.5°C in winter and 2°C in summer over the next 30 years. These changes are expected to impact human health, particularly affecting the older population, with older women being more vulnerable. Additionally, the region will face challenges such as flash floods, water supply issues, and increased pressure on healthcare and infrastructure.

As mentioned above, Kotor Bay was selected as a pilot project of the GEF MedProgramme Special Climate Change Fund (SCCF) Project, a key component of the MedProgramme aimed at enhancing regional climate change adaptation in

¹³ Ivanović, M. (2023). Working Paper No. 33: The Impact of Climate Change on Key Macroeconomic Indicators in Montenegro. Central Bank of Montenegro

Mediterranean marine and coastal areas. This selection was based on the region's significant vulnerability to climate change impacts, given its extensive coastal areas and dependence on climate-sensitive sectors such as tourism, agriculture, and fisheries. The project aims to develop and implement targeted strategies to address these vulnerabilities, with a focus on improving financial mechanisms and adaptation measures. By examining this pilot site, the SCCF Project seeks to provide a model for other regions facing similar climate-related challenges, ultimately contributing to the broader goal of regional climate resilience.

The Central Bank of Montenegro, in their report 'The Impact of Climate Change on Key Macroeconomic Indicators in Montenegro,' identified Kotor Bay as susceptible to climate change impacts such as extreme weather events such as floods and fires, which have historically affected the region. As tourism is critical for Kotor Bay, these climate risks may endanger the infrastructure that coastal tourism depends on, while overtourism may place strain on the area's resources, especially water. Second order effects, such as changes in traveling patterns would also require a transformation towards sustainable and low carbon intensive tourism as a form of adaptation. Comprehensive adaptation measures are therefore needed to safeguard the social, economic, and environmental assets of Kotor Bay, which include access to financial means for local adaptation measures.

5.1 CHALLENGES AND GAPS IN THE FINANCE SECTOR

At the sub-regional level, Kotor Bay faces significant financial gaps in addressing climate adaptation. The primary challenge is the inadequacy of funding mechanisms specifically tailored to the needs of coastal areas, in spite of great advancements with the creation of initiatives such as the EcoFund in Montenegro. Existing financial structures, such as the IDF, do not sufficiently support large-scale adaptation projects, essential for enhancing resilience against sea-level rise, coastal erosion, and extreme weather events.

There is also a lack of comprehensive climate risk assessments, making it difficult for financial institutions to develop products and services that cater to the unique vulnerabilities of coastal communities and industries. This is specially the case of the available funds from the IDF, which offers financing support to the critical private and public economic actors in Kotor Bay. However, no means of evaluation of the adaptation outcomes are yet in place. Although we find that climate funds have been established, they are not adequately scaled to meet the region's needs. This financial shortfall is compounded by the region's reliance on traditional funding sources, which are not equipped to address the specific risks posed by climate change in coastal areas, and specifically to those of Kotor Bay.

Several initiatives aimed at addressing these gaps have been introduced, such as the development of climate adaptation funds and the integration of climate risks into financial decision-making processes. For instance, Kotor Bay's Coastal Management Plan, which is currently under development under MedProgramme Child Project 2.1, includes recommendations for mainstreaming adaptation strategies. However, local on-the-ground implementation is often hindered by insufficient financial resources and investment, as well as a lack of local institutional capacity and awareness. The region requires substantial investment to improve infrastructure and resilience, yet current financial flows are inadequate to meet these demands. Likewise, the region requires capacity-building, especially at the local level with a focus on coastal adaptation.

Within our review, we identified several initiatives within the project "Innovative Projects for Climate Change Measures in Montenegro's Tourism Sector." These initiatives classify as adaptations to current and future threats posed by climate change, specifically for the tourism sector. Notably, we found that eco-certified tourism accommodations in Montenegro, specifically three within Kotor Bay, have achieved EU Ecolabel and Travelife certification. Support has also been provided for the development of the Polycentric Sustainable Urban Mobility Plan for Kotor Bay, aiming for a more accessible, secure, clean, and environmentally friendly urban transport system. This plan includes several initiatives to promote low and no-carbon opportunities, such as the development of a solar-electric or hybrid intercity boat and ferry service to provide environmentally friendly transportation options within Kotor Bay. This measure can achieve both a direct and indirect reduction in GHG emissions, but also supports the adaptation of the area's mobility and tourism sectors to climate change.

While these are clear steps that are essential for closing the adaptation gap in the area, more financial support is still needed to ensure that Kotor Bay can effectively adapt to the impacts of climate change, safeguarding its key economic sectors and communities. Additionally, there is a need for more robust financial instruments that can attract private sector investment. Innovative financial products, such as climate bonds and green loans, could provide the necessary capital for large-scale adaptation projects. However, these instruments are still underdeveloped in the region, and there is a lack of capacity and expertise to implement them effectively.

5.2. RECOMMENDATIONS FOR ENHANCING FINANCIAL READINESS IN KOTOR BAY

To enhance financial readiness for coastal adaptation in Kotor Bay, several measures are recommended:

- Developing specialized climate funds: establish dedicated funds that specifically target coastal adaptation projects within the region, ensuring that resources are allocated to the most vulnerable sectors. This is in line with findings from Montenegro's National Adaptation Plan (NAP), specifically the UNDP project 'Enhancing Montenegro's Capacity to Integrate Climate Change Risks into Planning,' which conducted a vulnerability analysis of the priority sectors relevant to the process of adaptation to climate change in Montenegro, namely the agriculture, health, tourism, and water sectors. These sectors are critical areas of vulnerability for Kotor Bay, given its economy and geographical characteristics.
- Enhancing financial products and services: financial institutions in the region should develop products that incorporate climate risk assessments and offer favorable terms for adaptation investments, tailored to the region's specific needs. Our review of local financial institutions failed to find specific products available for climate change adaptation, or with a focus on coastal regions.
- Strengthening regulatory frameworks: regional governments need to create enabling environments that facilitate Private-Public Partnerships and private investments in climate adaptation through supportive policies and incentives. While we found encouraging evidence of such in the work of the EcoFund and the IDF, local initiatives are required to foster partnerships and investments.
- Building institutional capacity: both public and private sector institutions in the region need to build capacity to understand and manage climate risks, ensuring that financial decisions are informed by robust climate data and risk assessments. This is especially the case for local governments.

6. Conclusion

Montenegro has made significant strides in developing a comprehensive framework for climate action, evident through its national strategies, policies, and commitments aligned with international agendas such as the Paris Agreement and the European Green Deal. Key initiatives include the National Strategy for Sustainable Development, the European Green Deal, and the Green Agenda for the Western Balkans, reflecting Montenegro's commitment to fostering a sustainable, low-carbon economy.

Capacity-building efforts are vital in enhancing Montenegro's resilience to climate change and promoting sustainable development. Training programs and workshops, such as those conducted under the EU Environment Partnership Programme for Accession (EPPA) and the Transition Towards Low Emissions project (TRATOLOW), contribute to raising awareness, building expertise, and fostering collaboration among stakeholders.

The establishment of financial mechanisms such as the Environmental Fund (EcoFund) and the Investment and Development Fund of Montenegro (IDF MNE) demonstrates Montenegro's commitment to mobilizing resources for climate action and sustainable development. Initiatives like green bonds, subsidies for renewable energy projects, and public competitions for environmental initiatives showcase efforts to incentivize private sector involvement and promote green investments.

Key challenges include:

- Limited access to climate finance: private sector actors often face difficulties in accessing climate finance, which hampers the implementation of large-scale sustainable projects.
- Insufficient monitoring: financial institutions need to improve monitoring and management of environmental risks associated with their investments.
- Regulatory frameworks: there is a need for stronger regulatory frameworks to guide and enforce sustainable practices within the financial sector.

Key opportunities include:

- Public-private collaboration: strengthening collaboration between public and private sectors can enhance the overall impact of climate action initiatives.
- Improved climate risk practices: enhancing climate risk assessment and management practices within financial institutions can lead to better-informed investment decisions.
- Green entrepreneurship: promoting green entrepreneurship and innovation can drive sustainable economic growth and create new business opportunities.

KEY RECOMMENDATIONS INCLUDE:

- Integration of climate considerations into investment planning
 - Risk assessment and lending criteria: develop and implement policies that integrate climate change considerations into financial sector risk assessments and lending criteria.
 - Training programs: organize specialized training programs for financial institutions to better understand and manage climate-related risks.

- Enhanced coordination between key stakeholders
 - Government agencies and stakeholders: establish a dedicated task force to improve coordination among government agencies, international organizations, and private sector stakeholders.
 - Information sharing platforms: create platforms for regular information exchange and collaboration on climate financing mechanisms and sustainable investments.

- Capacity Building:
 - Targeted initiatives: invest in capacity-building initiatives targeting policymakers, financial institutions, and entrepreneurs to enhance climate resilience and promote green economic growth.
 - Public-Private Partnerships: foster public-private partnerships to leverage resources, expertise, and innovative solutions for climate action.

Montenegro has laid a solid foundation for advancing climate action and sustainable development. By addressing key challenges and capitalizing on emerging opportunities, Montenegro can further accelerate its transition towards a low-carbon, climate-resilient economy. This will contribute to global efforts to mitigate climate change and build a sustainable future. Enhanced capacity-building, improved regulatory frameworks, and stronger public-private collaboration will be crucial in achieving these goals.

6.1 NEXT STEPS: STRENGTHENING THE MACRO-FRAMEWORK

Several important milestones will be achieved in 2024 in Montenegro in terms of climate change. The Ministry of Spatial Planning, Urbanism and State Property, together with the Ministry of Economy, has continued to work on the National Energy and Climate Plan (NECP), which should be adopted by the end of 2024.

Through the World Bank Partnership for Market Implementation (PMI) program, Montenegro received a 2 million US dollars grant to develop the Readiness Support Plan (RSP) for carbon pricing. The project activities have already started. The ultimate goal is to establish a stable national system of carbon pricing in accordance with EU policy requirements.

Currently, Montenegro is drafting its new Law on protection against adverse impacts of climate change, which will be adopted by the end of 2024. The main motivation behind the adoption of the new law is improvement of the legislative framework for protection against the negative effects of climate change and further harmonization with the EU acquis in this field, as well as fulfillment of obligations defined by the Energy Community Decarbonization Roadmap.

Altogether, these measures contribute to developing a more robust climate change framework in Montenegro. From this study, it is clear that while efforts to address climate change mitigation are underway in Montenegro, adaptation is, as elsewhere, also lagging behind. Nonetheless, addressing key climate risks and impacts in Montenegro and its coastal zones is crucial to ensuring the country's resilience and sustainability.

Annexes

I. TABLE OF FINANCIAL INSTITUTIONS IN MONTENEGRO

Name of stakeholder	Sector	Green or climate change-related product
UNIQA neživotno osiguranje A.D. (Allianz partner office)	Insurance companies	https://www.uniqagroup.com/grp/sustainability/strategy-governance/customers-products.en.html
Triglav	Insurance companies	https://www.triglav.eu/en/sustainable-development/sustainable-business
Generali	Insurance companies	https://www.generaliglobalcorporate.com/our-responsibilities/responsible-business.html
AXA partner company	Insurance companies	https://www.axa.com/en/news/how-to-support-the-transition-towards-the-protection-of-biodiversity
Swiss Re	Reinsurance company	https://www.swissre.com/sustainability/sustainable-operations.html
Europa Re	Reinsurance company	Apparently no, only ESG policies
OTP Group	Bank	https://www.otpgroup.info/sustainability/responsible-service-provider
Crnogorska komercijalna banka AD Podgorica member of OTP Group	Bank	Apparently no, not even ESG statement/policies
Hipotekarna banka AD Podgorica	Bank	Apparently no, only a statement on the UN Sustainable Development Goals
Prva banka Crne Gore AD Podgorica - Osnovana 1901. godine	Bank	Apparently no, only a social responsibility statement
ERSTE Bank AD Podgorica	Bank	https://www.erstegroup.com/en/about-us/sustainability-esg/esg-environment
NLB Banka AD Podgorica	Bank	https://www.nlb.si/sustainability_report_2022.pdf
Addiko Bank AD Podgorica	Bank	https://www.addiko.com/static/uploads/2023_Addiko-Group-ESG-Strategy-en-1.pdf
Universal Capital Bank AD Podgorica	Bank	Apparently no, not even ESG statement/policies
Lovćen banka AD Podgorica	Bank	Apparently no, not even ESG statement/policies
Zapad banka AD Podgorica	Bank	Apparently no, not even ESG statement/policies
ZIRAAT Bank Montenegro AD Podgorica	Bank	https://www.ziraatbank.com.tr/en/Investor-Relations-ZB/Documents/esg-and-sustainability-investor-presentation.pdf
Adriatic Bank AD Podgorica	Bank	Apparently no, not even ESG statement/policies

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