

CLIMAGINE Workshop I Report

Boka Kotorska Bay Coastal Management Plan - GEF MedProgramme, Child Project 2.1.

Hotel Regent, Tivat, Montenegro – 3rd December 2021



Mediterranean
Action Plan
Barcelona
Convention



Montenegro
Ministry of Ecology,
Spatial Planning and Urbanism



Global Water
Partnership
Mediterranean



2.1

Mediterranean
Coastal Zones Climate
Resilience Water Security
and Habitat Protection"

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1 Introduction

The participatory approach Climagine is being implemented to the development of sustainable coastal planning in Boka Kotorska, Montenegro within the wider context of the Global Environmental Facility (GEF) [MedProgramme: Enhancing Environmental Security \(2020-2024\)](#), implemented by the UNEP Mediterranean Action Plan (UNEP/MAP).

The MedProgramme's Child Project 2.1. focuses on "Mediterranean Coastal Zones: Water Security, Climate Resilience and Habitat Protection." One of its main goals is to support Mediterranean countries in the implementation of the Protocol on Integrated Coastal Zone Management (ICZM Protocol) in order to reduce major transboundary environmental stresses affecting the Mediterranean Sea and its coastal areas, taking into account climate change by building climate resilience and water security, and ultimately improving health and livelihoods of coastal populations. PAP/RAC, Plan Bleu/RAC, GWP-Med and UNESCO-IHP are Child Project 2.1. executing partners. It notably foresees the elaboration of two Coastal Management Plans led by PAP/RAC in Boka Kotorska Bay, Montenegro and the Tanger-Tetouan-Al Hoceima Region, Morocco.

Plan Bleu/RAC is supporting this effort using the participatory Climagine methodology to support ICZM. Indeed, the Climagine process can inform the development of local and national Coastal Management Plans in a bottom-up manner, while providing regional lessons for ICZM and coastal climate change adaptation in the Mediterranean.

Montenegro, one of the beneficiary countries of the MedProgramme, is rich in natural and cultural resources and services, but is experiencing tremendous pressure from economic development, mainly tourism and construction. To balance development and conservation requires sustainability in both economic activities and natural resources management and valorisation. Thus, the process of marine and coastal zone planning offers the scope for a participatory approach and wider stakeholder engagement from all levels - policy makers, inspectors and regulators, education, economic sectors, managers, planners, civil society and the wider public, to reduce the complexity of spatial planning, take into account climate change pressures and adaptation action, and ensure sustainable actions.

The natural and cultural heritage of the geographically and hydrographically unique and complex marine system of Boka Kotorska Bay needs to be preserved for the wellbeing of future generations. Kotor is one of Boka Kotorska's three municipalities, alongside Tivat and Herceg Novi. As a UNESCO World Heritage site, it embodies universal values, while the Bay itself is the sole place where mariculture is developed in the Montenegrin coast. Therefore, the development of a Coastal Management Plan for Boka Kotorska provides a good framework to balance both modern and resort type tourism (currently heavily developing along the coast and in the Boka Kotorska region), with sustainable tourism and environmental protection while minimising and adapting to climate change pressures on coastal areas.

The new Coastal Management Plan for Boka Kotorska shall provide a planning framework for a healthy environment and a quality lifestyle, green spaces and buffer zones between natural and developed areas, climate change adaptation measures, fish/mariculture for food, agriculture activities (e.g. olive trees, medicinal/herbal products, dairy products, etc.) and sustainable transport and construction, while ensuring safe and sound risk management and preparedness for extreme events and accidents at sea and on land.

In support of this vision of Boka Kotorska's future, the first national stakeholder Coastal Management Plan Scoping and Climagine workshop was held on December 3rd, 2021 in Tivat. The meeting was organized in partnership with and co-hosted by the Ministry of Ecology, Spatial Planning and Urbanism of Montenegro and 2 UNEP/MAP Regional Activity Centres – the Priority Actions Programme (PAP/RAC) and Plan Bleu (PB/RAC). It was held in Montenegro in strict compliance with ongoing COVID-19 regulations¹.

¹ In view of the current circumstances related to COVID-19, this workshop took place in strict compliance with the health restrictions in force in Montenegro in December 2021. Due to limitations regarding the number of event participants (50 participants maximum), institutions and stakeholders were asked to nominate one representative from their institution to participate, while the workshop complied with the COVID-19 measures and requirements for indoor meetings/conferences.



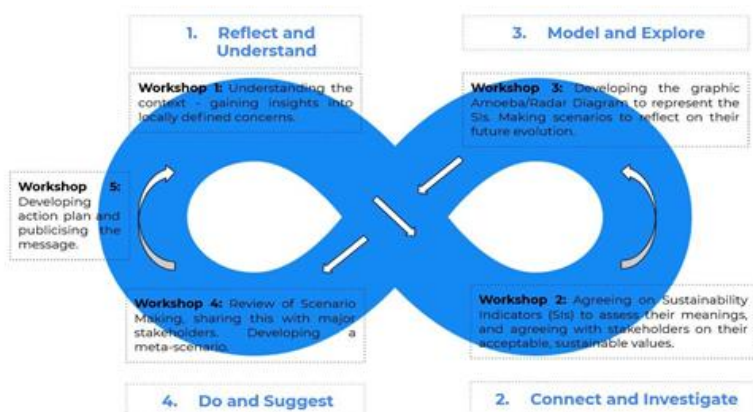
1.1 CLIMAGINE IN THE CONTEXT OF THE MEDPROGRAMME

This first workshop is part of the 5 workshop cycle of “Climagine” methodology that was developed by Plan Bleu and is currently being implemented in the framework of MedProgramme Child Project 2.1. This project and methodology also entertains close synergies with MedProgramme SCCF Project: Enhancing regional climate change adaptation in Mediterranean Marine and Coastal Areas, which will be capitalized on over the coming years. At the time of writing, a [Gender-sensitive Climate Risk Assessment of Boka Kotorska](#) is currently under preparation by a national consultant team (Plan M from Podgorica, Montenegro). It was delivered by mid-2022.

Ten years ago, Climagine upgraded and capitalized on the Imagine method, by addressing the specific challenges of climate change and variability in coastal zones with a focus on the ICZM process. In cooperation with PAP/RAC, this approach was tested and implemented in Šibenik-Knin County, Croatia and the Kerkennah Archipelago, Tunisia, in the framework of the MedPartnership sister project, “Integration of climate variability and change into national strategies for the implementation of the ICZM Protocol in the Mediterranean” (Climvar & ICZM project). The results and lesson learned from these two pilot cases laid the groundwork for the use of “Climagine” in the framework of the GEF MedProgramme, consisting in the elaboration of two ICZM plans in the Tangiers-Tetouan-Al Hoceima Region (Morocco) and in Boka Kotorska Bay (Montenegro) and that of two national ICZM strategies in Egypt and Lebanon.

Climagine upgrades the initial “Imagine” approach to address sustainable coastal zone management needs in the Mediterranean while ensuring the participation of stakeholders in coastal planning. It facilitates the shaping of a sustainable development vision within a project area by engaging stakeholders through an inclusive process intended to describe, assess and examine the past, present and future levels of sustainability of a local “socio-eco-system” by means of indicators, setting goals and monitoring the system’s progress towards sustainable development. This dynamic, participation-based process is based on systemic and prospective analysis, indicators and the concept of sustainability threshold, which draws on the expertise of local stakeholders. The methodology involves the identification, collection and use of different types of data through the workshop process to serve as a basis for the Climagine’s inputs into the ICZM plan. This data will be compiled throughout the workshops and drawn from a range of available databases in the project area, as well as at the national and regional levels. This 5-stage process is illustrated in Figure 1:

Figure 1. The 5 stages of Climagine



STEP I: set the stage / establish and understand the local and regional context / agree on the key issues and priorities / identify sustainability dimensions / map stakeholders' vision of the area / begin forming a local group of experts / map missing stakeholders.

STEP II: engage in Diagnosis, Vision and Future Scenarios by proposing sustainability indicators for the recognised issues / propose minimum and maximum values for these indicators to determine thresholds of sustainability / set priorities for the Coastal Management Plan.

STEP III: determine the Plan's priority issues and strategic objectives / elaborate the Band of Equilibrium and Amoeba diagrams / validate the indicators and identify missing indicators / identify climate change adaptation measures.

STEP IV: final validation of the indicators/diagrams and integration into the Coastal Management Plan.

STEP V: Approval of the Coastal Management Plan and final regional Climagine workshop on ICZM in the Mediterranean's coastal zones.

1.2 CLIMAGINE AND THE BOKA KOTORSKA COASTAL MANAGEMENT PLAN

Boka Kotorska is one of two UNESCO sites in Montenegro, recognised for its valuable cultural and historic heritage (Municipality of Kotor - Exceptional Universal Value). In addition, one of the two main identified coastal areas identified by the [National Biodiversity Strategy 2016-2020](#) is Boka Kotorska, which provides important hatcheries and food sources for economically important marine species. Additionally, the [Spatial Plan of Montenegro](#) until 2020, recognizes Boka Kotorska as a development zone. Development zones are referred to as areas of interconnected cities and settlements where development activities take place in such a way that they are complementary to each other: the settlements strengthen their own roles in the overall urban and urban/rural systems.

As an EU candidate country that is committed to international standards and initiatives, Montenegro has ratified both the Barcelona Convention and the ICZM Protocol, committing itself to their use as legal instruments for coastal zone management and protection through national and/or local strategies, plans and programs (Article 18 of the ICZM Protocol). In 2015, it adopted the [Integrated Coastal Zone Management Strategy](#) of Montenegro, which states one of its priority actions – the implementation of a pilot project for climate change adaptation (at the given locality/area of coastal municipality), which will be further integrated in the spatial planning documents and strategic plans at the national and local levels. This action is anticipated to encompass wider stakeholder engagement and capacity-building workshops.

Due to the complexity and interconnection of economic, environmental and cultural values of Boka Kotorska, Climagine issues a relevant and tested instrument for implementing the above pilot activities, since it provides an integrated approach and prioritisation of problems related to the environment, sectoral development and the impacts of climate change. The key benefits of Climagine methodology are the development of a plan in consultation with all stakeholders and the integration of local knowledge, preferences and solutions into planning documents, thus building ownership of the process and strengthening the Plan's development and implementation.

Figure 2. Map of Boka Kotorska Bay, Source: ICZM Montenegro



2 Workshop summary

The first Montenegrin Climagine workshop engaged stakeholders from numerous sectors and levels and aimed to describe, assess and examine the state of past, present and future of sustainability in Boka Kotorska. Special attention was devoted to local “socio-eco-systems” in order to progress towards setting goals, indicators and monitoring systems in Boka Kotorska.

The workshop was opened by two high-level representatives of Montenegrin institutions, Ms. Ana Samardžić, the Advisor for Spatial Planning of Montenegro Prime Minister and Ms. Ivana Stojanović, Head of Division for Integrated Management of Marine and Terrestrial Ecosystems in the Ministry of Ecology, Spatial Planning and Tourism of Montenegro followed Ms. Željka Škaričić, Director of PAP/RAC from Split, Croatia.

Participants were introduced to the national climate change strategic and legislative frameworks by Ms. Maša Radović (Ministry of Ecology, Spatial Planning and Tourism of Montenegro), and then zoomed in on the local level of Boka Kotorska with a presentation of the main climate impacts in the area and current; monitoring and data availability regarding the latter, presented by Ms. Mirjana Ivanov (Institute of Hydrometeorology and Seismology of Montenegro).



2.1 PART 1: COASTAL MANAGEMENT PLAN SCOPING SESSION

Ivan Sekovski introduced PAP/RAC, informed the participants about the Center’s mission and previous work in relation to the ICZM Protocol and Barcelona Convention, connecting the “Climagine” process and development of Coastal Management Plan of Boka Kotorska with the Article 18 of the Protocol, which refers to the Coastal Management Plan and its potential for integration into local and national plans. Mr. Sekovski, made a clear distinction what the Coastal Management Plan is, and what it is not, highlighting the fact that the Coastal Management Plan is an integrative and strategic document complementary to other plans, that comprises a sustainability vision and climate change adaptability measures/actions.

Mr. Saša Karajović, spatial planner and PAP/RAC consultant, then delved into the ongoing processes of spatial planning in the framework of the new Montenegrin Spatial Plan, as well as the government’s intention to modify the current Law on Spatial Planning and Construction of Objects. Mr. Karajović highlighted the fact that the new national Spatial Plan of Montenegro is under development. It will take the previous 2020 plan into consideration to comprise ongoing infrastructure projects and reassert Montenegro’s commitment to key UN and EU regulations related to sustainable development and the environment. In the 2020 Spatial Plan of Montenegro, Boka Kotorska was recognized as presenting a certain number of key resources and potentials as well as certain development priorities, tempered by a number of specific constraints, conflicts, thresholds, regulatory environments, seismic risk controls, technical accidents and natural disasters.

Additionally, the Special purpose spatial plan for the coastal area recognized the need that all plans need to be harmonized with the guidelines and protection measures of cultural assets of Municipality of Kotor, as the place of Exceptional Universal Value. Furthermore, the National Strategy for Integrated Coastal Zone Management states that the implementation of development and spatial planning commitments should ensure compliance with the recommendations of importance for the protection of the natural and cultural-historical area of the Kotor-Risan Bay as a UNESCO World Heritage Site, in accordance with the 2011 Management Plan.

2.2 PART 2: CLIMAGINE 1 WORKSHOP

The Climagine session of the workshop was opened by Mr. Michael Karner from Plan Bleu/RAC, who provided a brief overview of Climagine's goals. Plan Bleu's national consultant and Climagine facilitator, Ms. Sudar then launched the group activities. Participants were initially divided into 7 working groups, (which then became 6 when Groups 4 and 9 were merged).



The groups then delved into the “Reflect and Understand” phase of Climagine, by discussing issues relevant to coastal management and development, natural resource management and climate change adaptation. Participants deployed their professional, institutional and personal experience and knowledge to develop sustainability visions of Boka Kotorska in the form of “rich pictures”, and then identified and prioritised challenges and issues. Each group presented their discussion results twice, once after drafting their sustainability vision and identifying key challenges, and after laying out main actions for each identified challenge.

Using Climagine as framework for group work allowed the convening of a broad stakeholder audience, representing national and local policy makers, ICZM and MPA managers, scientific institutions, port authorities, civil society organisations, the Montenegrin Environmental Protection Agency, among others, with different professional backgrounds, responsibilities and obligations and having different impacts on planning and sustainability in Boka Kotorska.

During the group activities, Ms. Sudar closely followed the discussions and progress of each group, providing additional guidance on the expected outcomes and deliverables of every session to:

1. Define the sustainability visions for the area;
2. Identify the key challenges and issues;
3. Prioritise and classify the key challenges and issues identified under general themes (biodiversity, transportation, i.e. Sustainability Dimensions);
4. Discuss the key challenges and select main actions to address them.
5. Note the availability of data for selected actions/solutions.
6. Identify missing stakeholders that need to be included in the “Climagine” process. (cf. Annex 3)
7. Pointing out that local knowledge and experience are unique and a significant factor in developing a sense of ownership and collective purpose throughout the process.

The tables below summarise the Climagine group activities and their findings in terms of vision, challenges, priority actions and dimensions.

GROUP 1

Sustainability Vision: "Boka Kotorska as an example of culture and nature living in harmony."

Key challenges

- **Construction:** devastation of space due to inadequate construction practices
- **Depopulation** in villages and rural areas
- **Education:** promoting environmental education of the general public and at all levels
- **Extreme weather events**
- **Tourism:** putting constraints on cruising tourism
- **Transport:** developing more sustainable transport infrastructure
- **Waste:** Inadequate waste management

Priority actions

- **Education:** implementation of adequate education in schools and raising awareness
- **Emergencies:** establishing a Regional Centre for Emergencies (weather, extreme events, maritime incidents)
- **Enforcing regulations:** undertaking stronger inspection controls (spatial planning/urbanisation, grey economy, tourism...)
- **Infrastructure:** modernisation and expansion of communal infrastructure and infrastructure in the coastal hinterland, providing support for the adaptation of existing development projects (buildings, homes, etc.)
- **Supporting local food systems:** valorisation and promotion of agricultural products
- **Sustainable growth:** balancing nature conservation and economic development
- **Tourism:** extension of the touristic season, harmonising touristic offer with accommodation capacities, balancing the cruising industry (constraints on the number and size of vessels)
- **Transport:** efficient use of Tivat airport (low-cost companies as a means to decrease the impact of single point tourism, e.g. from cruising), regulating internal maritime traffic, implementing public maritime transport and other sustainable means of transport such as cable cars, rental bicycles and scooters and building road bypasses

Sustainability Dimensions: governance, education, protection of nature, sustainable tourism, transportation

GROUP 3

Sustainability Vision: "Boka Kotorska in 2030/2050: a year-round tourist destination with a diversified tourist offers based on inclusive, sustainable, smart and green development. The area has achieved stable incomes and meets the interests of both the local population and tourists."

Key challenges

- **Cultural and natural heritage:** inadequate management
- **Data:** lack of carrying capacity indicators (Old Town of Kotor, cruising, etc.), lack of adequate environmental monitoring of certain aspects
- **Education:** insufficient awareness of the importance of environmental protection and sustainable tourism
- **Infrastructure:** insufficient communal and traffic infrastructure (communal/traffic), lack of destination management (important tool in tourism planning and governance)
- **Regulations:** insufficient enforcement of legislation and inspections, e.g. of the grey economy (secondary homes for rental)
- **Spatial planning:** extensive and illegal construction in the coastal zone
- **Tourism:** seasonality and overtourism in the coastal area, insufficient diversification of the touristic offer (focus on the summer and based on "sun and sea")

Priority actions

- **Cultural and natural heritage:** increased capacity, independence and finances for managers
- **Education and awareness raising:** targeting local populations and establishing LAGs (Local Action Groups) to foster community-led sustainable local development strategies
- **Entrepreneurship:** supporting female and young entrepreneurs

- **Funding:** securing financing (EU funds, capital investment, local budget, etc.), e.g. for the implementation of tourism plans
- **Infrastructure:** development of the hinterland and providing subsidies for rural populations
- **Inspections:** stronger and increased inspection (environmental, tourism, construction, etc.), building capacity of inspectors
- **Monitoring and Data:** ensuring financing and including expert institutions in reinforced environmental monitoring, homogenisation and systematisation of environmental data, producing a study of local carrying capacity indicators for Boka Kotorska
- **Planning:** development of national and local tourism plans, revision of existing spatial plans, development of remediation plans (of environmental degradation, soil degradation, etc.)
- **Tourism:** development of strategic and action plans for inclusive, sustainable, smart and green tourism, encouraging tourism in rural areas

Sustainability Dimensions: sustainable tourism (rural, cultural, health and spa or nature-based tourism); valorisation and protection of the cultural and environmental heritage; banning of the construction or renting of secondary homes; education of the population (environmental protection, sustainable tourism, sustainable construction, how to react during extreme weather events, etc.); high-quality monitoring (environment, tourism, economic development, grey economy, etc.)

GROUP 4+9 (Groups merged)

Sustainability Vision: “Boka Kotorska is a specially protected area and revived by 2030”

Key challenges

- **Infrastructure:** inadequate infrastructure for the population and tourism density, extensive urbanisation
- **Maritime transport:** pollution, frequency, risk of accidents
- **Natural and cultural heritage:** intensive development risks jeopardising the universal value of the UNESCO World Heritage site
- **Regulations:** Illegal economic activities, e.g. secondary homes for renting and not respecting coastal zoning for construction
- **Unsustainable use of natural resources**

Priority actions

- **Education and awareness raising:** organising environmental workshops, events and actions (tree planting, etc.)
- **Governance:** achieving political consensus for maritime traffic density and implementing economic policy measures for decreasing seasonality
- **Regulations:** enforcing environmental legislation, stronger inspection (environment, tourism, grey economy, construction, etc.) and enforcing fines prescribed by legislation

Sustainability Dimensions: revival of Boka Kotorska, balancing tourism seasonality, communal infrastructure, regulating maritime transport

GROUP 5

Sustainability Vision: “Boka Kotorska in 2030/2050: a balanced and harmonised relationship between the cultural and natural heritage on the one side and new developments on land and at sea, respecting the principles of sustainable development and adaptation to climate change impacts.”

Key challenges

- **Air pollution** in urban areas due to traffic and a lack of incentives for decreasing pollution and its impacts on the quality of life
- **Extreme weather events**: high intensity of rainfall and storms and forest fires in dry periods
- **Environmental funding**: lack of adequate financing for environmental protection and undertaking measures to address the effects of climate change
- **Inspection and regulations**: Lack of sufficient human resources of inspection
- **Water infrastructure**: lack of adequate communal infrastructure for waste, rainfall and wastewater management
- **Urbanisation**: inadequate

Priority actions

- **Communal infrastructure**: producing analyses of its current state, defining priorities, securing financing and implementation of measures
- **Education**
- **Environmental monitoring**: identifying polluters, establishing a central database, adoption of a national and local of “polluter pays” policy, mandatory annual reporting
- **Inspection**: building human and technical capacity of inspection services
- **Transport**: high impact on the quality of life, promoting the use of fuels with lower levels of sulfur, providing incentives for using electric vehicles, building infrastructure for sustainable transportation bicycles and public transportation on land and at sea
- **Waste management**: promoting composting and soil creation, decreasing waste packaging, developing the recycling industry

Sustainability Dimensions: developing communal waste management infrastructure; environmental monitoring, data harmonisation and integration; protection of existing ecosystems and establishment of new green areas and buffer zones; developing sustainable traffic infrastructure; promoting social corporate responsibility (green and blue economy); continues citizen environmental education and awareness raising.

GROUP 6

Sustainability Vision: “Boka Kotorska in 2030/2050-stronger, resilient and prepared for climate change, with a focus on environmental protection, cultural heritage and biodiversity.”

Key challenges

- **Administrative capacity**: lack of adequate administration capacities and interinstitutional communication
- **Anthropogenic impacts**: construction, land and sea transportation
- **Climate risk assessment capacity**: lack of fire risk and other extreme weather events assessment strategies
- **Environmental monitoring**: inadequate coverage of the area with meteorological and hydrological stations
- **Waste**: lack of management strategies, developing the sewerage system and wastewater treatment infrastructure
- **Rescue services**: low capacity of rescue departments

Priority actions

- **Education and awareness raising of the population**
- **Environmental monitoring**: establishing new meteorological and hydrological stations and integrating environmental data

- **Governance:** placing more constraints on urbanisation and illegal construction
- **Recycling:** establishment of a recycling center for Kotor/Tivat and a regional landfill
- **Rescue services:** strengthening capacity for protection and rescue and acquiring more support from the Ministry of Defense, establishing a regional center for protection and rescue services and a civil rescue and protection system on the national and local levels
- **Risk assessment and adaptation:** developing local risk strategies
- **Wastewater management:** Connecting to a sewerage system and wastewater treatment

Sustainability Dimensions: biodiversity protection, efficient management of urbanisation, transport infrastructure, waste management, increased readiness for extreme weather events, education

GROUP 7

Sustainability Vision: “Increased protection and moresustainable development of the current state of Boka Kotorska enables sustainability in every segment of the societies of Boka Kotorska.”

Key challenges

- **Education:** low level of environmental awareness of population
- **Environmental monitoring:** Inadequate environmental monitoring systems and data integration
- **Governance:** inadequate inter-institutional cooperation, corruption, lack of enforcement of legislation
- **Transport:** high impact transportation projects (e.g. the controversial Verige bridge project, etc.), lack of effect public transportation on land and at sea
- **Tourism:** impacts of the cruising industry
- **Wastewater treatment**

Priority actions

- **Communal infrastructure:** expanding it in the three municipalities
- **Conservation:** establishing Boka Kotorska as a natural park
- **Construction:** placing more constraints on construction and considering Boka Kotorska as one region
- **Education:** raising public environmental awareness
- **Environmental monitoring:** implementing more detailed environmental monitoring and integrating databases
- **Governance:** improving the legislative framework, increasing and strengthening administration capacities and inter-institutional cooperation, stronger enforcement of fine policies (penalties)
- **Tourism:** higher constraints on cruising number and frequency, regulating utility berths and anchoring zones
- **Transport:** main transport routes to be located in the hinterland, introducing efficient public land and sea transportation, developing incentives for sustainable transport modes
- **Wastewater treatment:** building a plant to manage the wastewaters of the three municipalities (Kotor, Herceg Novi and Tivat) and building small-scale treatment systems for smaller wastewater discharge volumes

Sustainability Dimensions: enforcement of legislation, urbanisation and construction, transport infrastructure, environmental protection, communal infrastructure

In sum, the following overarching Sustainability Dimensions were identified by the groups and contain the topics and sub-themes identified by the participants in the tables above.

1. **Tourism**
2. **Transportation**
3. **Coastal Construction and Infrastructure**
4. **Water supply**
5. **Wastewater and other waste management**
6. **Nature and Environmental Protection**

7. Governance and Knowledge-Building²**8. Agriculture and Mariculture**

These Sustainability Dimensions should be confirmed by the attendees of the first workshop and other key stakeholders by the second workshop planned to be held by mid-2022. They will form the backbone of the next step of the Climagine methodology, which aims at translating them into both qualitative and quantitative Sustainability Indicators through collaborative efforts involving the project partners, consultants, local experts and participants. These Indicators will also be submitted to the group during the second Climagine workshop for review and validation, and in order to identify potential data gaps and inconsistencies as well as missing indicators.

Gender inclusiveness at the event

A key pillar of the MedProgramme is gender, as established in the MedProgramme Gender Mainstreaming Strategy. At this workshop there were 31 participants and 3 key speakers:

- 31 participants: 29% male and 71% female
- 3 key intro speakers: 100% female
- 3 participants presenters: 34% male and 66% female
- 6 presenters in total (with Plan Bleu and PAP/RAC): 50% male and 50% female

Indeed, specific attention to gender issues will be applied throughout the “Climagine” cycle in Boka Kotorska both in terms of data collection, workshop methodology, and speakers and participants.

² “Knowledge building refers to the process of creating new cognitive artifacts as a result of common goals, group discussions, and synthesis of ideas. These pursuits should advance the current understanding of individuals within a group, at a level beyond their initial level of knowledge, and should be directed towards advancing the understanding of what is known about that topic or idea” (Scardamalia & Bereiter, 2003, p. 5).

3 Conclusion and next steps

After the group activities, the Concluding Remarks were given by Mr. Ivan Sekovski, PAP/RAC, Ivana Stojanović, Ministry of Ecology, Spatial Planning and Urbanism of Montenegro, Mr. Michael Karner, Plan Bleu/RAC and Ms. Željka Škaričić, Director of PAP/RAC from Split. Throughout the workshop, group discussions resulted in the identification of similar challenges and gaps, mainly related to environmental protection, unsustainable transportations on land and sea, inadequate infrastructure, the need for education and awareness raising, and the need for legislation enforcements and constraints on urbanisation and construction (grey economy). The key actions of each group, regarding the expansion and modernisation of infrastructure, and change of conditions for improving the planning and state of the environment/cultural and historical heritage of Boka Kotorska's infrastructure had one common denominator – education and awareness rising. The participants are highly interested to attend following workshops and be included in the progress of the work and inputs for development of the Coastal Management Plan for Boka Kotorska, taking into account ICZM integrated coastal zone management principles and climate variability and change.

4 Annexes

4.1 EVENT AGENDA

| Time (CEST) | Session |
|-------------------------------------|--|
| 08:30-09:00 | Welcome and Registration of Participants |
| 09:00-09:15 | Opening Remarks |
| | <ul style="list-style-type: none"> Ivana Stojanovic, Head of Division for Integrated Management of Marine and Terrestrial Ecosystems, Directorate for Nature Protection, Ministry of Ecology, Spatial Planning and Urbanism, Montenegro Zeljka Skaricic, Director, PAP/RAC Michael Karner, Project Coordinator, Plan Bleu/RAC |
| 09:15-09:45 | Climate change impacts in Boka Kotorska: state of play and future perspectives <ul style="list-style-type: none"> Masa Radovic, Department for climate change, Directorate for international cooperation, EU integration and climate change, Ministry of Ecology, Spatial Planning and Urbanism, Montenegro Mirjana Ivanov, Institute of Hydrometeorology and Seismology, Montenegro |
| 09:45-10:30 | The Boka Kotorska Coastal Plan in the framework of the GEF MedProgramme <ol style="list-style-type: none"> Why a Coastal Plan? <ul style="list-style-type: none"> Ivan Sekovski, Programme Manager, PAP/RAC Main findings on Boka Kotorska from previous relevant projects <ul style="list-style-type: none"> Saša Karajović, PAP/RAC consultant |
| 10:30-10:45 | Questions and Answers |
| 10:45-11:00 | Coffee Break |
| 11:00-11:15 | Climagine and the Boka Kotorska Coastal Plan <ul style="list-style-type: none"> Michael Karner, Plan Bleu/RAC Objectives and Steps of the Climagine methodology <ul style="list-style-type: none"> Srna Sudar, Head of the Center for Technology Transfer, University of Montenegro |
| 11:15-13:30 Climagine 1 Workshop | Visions of Boka Kotorska (Climagine Facilitator: Srna Sudar) <ul style="list-style-type: none"> Drawing rich pictures to illustrate participants' visions of Boka Kotorska and definition of the main challenges and issues related to coastal development, climate change and natural resource management in the area (in groups) Presentation of the visions, challenges and issues (in plenary) Thematic clustering and prioritisation of challenges and issues (in groups) |
| 13:30-14:30 | Lunch |
| 14:30-17:15 Climagine 1 Workshop | Sustainability Dimensions in Boka Kotorska (Climagine Facilitator: Srna Sudar) <ul style="list-style-type: none"> Establishment of sustainability dimensions (in groups) Presentation and discussion around the proposed sustainability dimensions (in plenary) |
| 17:00-17:30 | Concluding Remarks: Next Steps for the Coastal Plan and Climagine Michael Karner, Plan Bleu/RAC Ivan Sekovski, PAP/RAC |

4.2 LIST OF PARTICIPANTS

| Title | First name | Last name | Organization/Institution | Position |
|-------------------|------------|------------|---|---|
| Ms. | Marija | Bajkovic | Public Enterprise for Coastal Zone Management of Montenegro | Associate |
| Mr. | Luka | Calic | Institute of Hydrometeorology and Seismology of Montenegro | Head of the Hydrography Department |
| Ms. | Dijana | Došljak | Public Enterprise for Coastal Zone Management of Montenegro | Coordinator |
| Ms. | Dragana | Drakulović | Institute of Marine Biology - University of Montenegro | Higher Associate Researcher |
| Mr. | Miras | Drlejić | Institute of Hydrometeorology and Seismology | Independent Advisor in the Department of Applied Meteorology |
| Ms. | Vesna | Đukić | NGO Olive Growers Association Boka - Boka Kotorska | Executive Director |
| Ms. | Aleksandra | Džaković | Administration for the Protection of Cultural Properties | Conservation Architect |
| Ms. | Mirjana | Ivanov | Institute of Hydrometeorology and Seismology | Head of the Department of Applied Meteorology and Climate Change |
| Ms. | Aleksandra | Janičić | Montenegro Sailing Federation | Secretary |
| Ms. | Darinka | Joksimović | Maritime Safety and Port Management Administration | Senior Adviser |
| Ms. | Marina | Krivokapić | Secretariat of Cultural and Natural Heritage - Municipality of Kotor | Adviser - Secretariat of Cultural and Natural Heritage |
| Ms. | Vesna | Mačić | Institute of Marine Biology, University of Montenegro | Senior Researcher |
| Mr. | Nemanja | Malovrazić | Public enterprise for Coastal Zone Management of Montenegro | Associate for Environmental Protection |
| Mr. | Maksim | Mandić | Protection and Rescue Service of Kotor | Komandir Službe |
| Mr. | Duško | Mrdak | Environmental Protection Agency of Montenegro | Senior Adviser |
| Ms. | Jelena | Mugosa | Ministry of Economic Development | Senior Adviser |
| Ms. | Danica | Perisić | Kotor Municipality, Secretariat for Urban Planning, Construction and Spatial Planning | Adviser |
| Ms. | Bojana | Petković | Municipality of Kotor | The Acting Secretary of Secretariat for Cultural and Natural Heritage |
| Mr. | Damir | Petrović | Tourism Organisation of Tivat | Market, Income and Statistics Analyst |
| Ms. | Patricia | Pobrić | Tivat Municipality | Manager |
| Ms. | Maša | Radović | Ministry of Ecology, Spatial Planning, and Urbanism of Montenegro | Independent Adviser |
| Ms. | Ljilja | Radunović | Eco Centre DOLPHIN | Project Manager |
| Mr. | Petar | Raicevic | Plan M Consultants | Director |
| Ms. | Milica | Rudić | Ministry of Ecology, Spatial Planning, and Urbanism of Montenegro | |
| Ms. | Ana | Samardžić | Prime Minister's Office | Adviser to the Prime Minister for Urbanism |
| Ms. | Ivana | Stojanović | Ministry of Ecology, Spatial Planning, and Urbanism of Montenegro | Head of Division for Integrated Management of Marine and Terrestrial Ecosystems |
| Ms. | Danielja | Šuković | Centre for Ecotoxicological Research | Adviser to the Executive Director for Laboratory Affairs |
| Ms. | Ana | Todorović | Ministry of Economic Development | Independent Advisor at the Department for Investments |
| Ms. | Danijela | Vlaović | Municipality of Herceg Novi | Manager |
| Mr. | Božidar | Vukšić | Port of Kotor | Environmental Supervisor |
| Mr. | Vladimir | Živković | Centre for Ecotoxicological Research | Adviser to the Director of the Laboratory for the Environment |
| Organizers | | | | |
| Ms. | Željka | Skaričić | PAP/RAC | Director |
| Mr. | Ivan | Sekovski | PAP/RAC | Program Manager |
| Mr. | Ante | Ivčević | PAP/RAC | Program Manager |
| Mr. | Saša | Karajović | PAP/RAC MedProgramme Consultant | Consultant |
| Mr. | Michael | Karner | Plan Bleu/RAC | Project Manager |
| Ms. | Srna | Sudar | Plan Bleu/RAC MedProgramme Consultant | Consultant |

4.3 LIST OF THE MISSING STAKEHOLDERS IDENTIFIED

- Directorate for the Protection of Cultural Heritage
- Ministry of Defense
- Ministry of Education, Science, Culture and Sport (Education Directorate)
- Ministry of Finances
- Ministry of Foreign Affairs (cross-border cooperation and support in human and technical resources)
- Ministry of Internal Affairs, Directorate for Emergencies
- Ministry of Justice (Pollution compensation)
- Municipalities - Local Rescue Departments
- Ministry of Capital Investments (Air Traffic)
- Port Authority of Kotor