



Event Report

**EPPA Workshop on the Implementation of the Marine Strategy
Framework Directive**

5 – 6 December 2019

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TABLE OF CONTENTS

1	INTRODUCTION	1
2	OBJECTIVES OF THE TRAINING AND EXPECTED RESULTS.....	2
3	HIGHLIGHTS FROM THE WORKSHOP	2
3.1	WELCOMING REMARKS AND INTRODUCTION TO THE WORKSHOP	2
3.2	WHERE WE ARE, WHAT WE PLAN TO DO AND WHAT WE CAN EXPECT	3
3.3	WHERE WE WANT TO ARRIVE	4
3.4	LEARNING FROM OTHER BEST PRACTICES AND INNOVATIVE TOOLS (1) - LAND BASED SOURCES OF POLLUTION: ASSESSMENT AND CONTROL.....	5
3.5	LEARNING FROM OTHER BEST PRACTICES AND INNOVATIVE TOOLS (2) - MANAGEMENT MODELS AND MEASURES FOR EFFECTIVE MANAGEMENT OF MPAs: SHARING KNOWLEDGE, BEST PRACTICES AND CHALLENGES.....	6
3.6	LEARNING FROM OTHER BEST PRACTICES AND INNOVATIVE TOOLS (3) - GIZ PROJECT: INTEGRATED WASTE MANAGEMENT AND MARINE LITTER PREVENTION IN THE WESTERN BALKANS.....	7
3.7	LEARNING FROM OTHER BEST PRACTICES AND INNOVATIVE TOOLS (4) - GREEN INFRASTRUCTURE CONCEPT: CONNECTING BIODIVERSITY AND HUMAN WELLBEING	8
3.8	DISCUSSION ON THE ISSUES SURROUNDING POTENTIAL MARINE PROTECTED AREAS (MPAs) IN MONTENEGRO	10
3.9	WORKING TOGETHER TOWARDS MPAs DESIGNATION - OUTLINE OF THE REPORT CONTAINING METHODOLOGY AND RECOMMENDATIONS FOR THE IDENTIFICATION OF TWO POSSIBLE MPAs IN MONTENEGRO	11
4	CONCLUSIONS	12
5	EVALUATION	13
5.1	THE EPPA IMPACT EVALUATION	13
5.2	THE TAIEX TECHNICAL AND LOGISTICAL EVALUATION	16

ANNEXES

- Annex 1: Agenda (provided as a separate document)
 Annex 2: List of Participants (provided as a separate document)
 Annex 3: Presentations (provided as a separate document)



1 Introduction

The regional workshop

The regional workshop on “the Implementation of the Marine Strategy Framework Directive” took place on 5-6 December 2019, in Podgorica, Montenegro. The workshop was organized in cooperation with TAIEX, and under the EPPA project work programme, activity 3.2 “Capacity building and technical assistance for managing marine litter and support to the implementation of the Marine Strategy Framework Directive”.

The participants of the workshop came from the relevant authorities of Montenegro. They represented the Ministry of Agriculture and Rural Development, the Institute of Marine Biology (University of Montenegro), the Institute of Hydrometeorology and Seismology, the Water Administration, the Administration for Inspection Affairs, the Public Enterprise for Coastal Zone Management, the Agency for Nature and Environment Protection of Montenegro, the Center for eco-toxicology research, and two coastal municipalities – Tivat and Kotor. Civil society was also represented by the NGO Mediterranean Center for Environmental Monitoring and the NGO Green Home.

The speakers represented both EU Member States experience and key Montenegrin stakeholders. From the Member States there were water and marine experts from Greece, Portugal and Slovenia, as well as a representative from GIZ. From Montenegro, the speakers were from the Institute of Marine Biology, the Public Enterprise for Coastal Zone Management and the NGO Mediterranean Center for Environmental Monitoring.

The presentations will be available at both the TAIEX website and the EPPA project website.

The Marine Strategy Framework Directive

The Marine Strategy Framework Directive (MSFD) - Directive 2008/56/EC - establishes a framework for community action in the field of marine environmental policy. Within this framework, Member States (MS) shall take the necessary measures to achieve or maintain Good Environmental Status in the marine environment by the year 2020 at the latest. For that purpose, marine strategies shall be developed and implemented in order to protect and preserve the marine environment, prevent its deterioration or, where practicable, restore marine ecosystems in areas where they have been adversely affected. In addition, marine strategies shall prevent and reduce inputs into the marine environment, with a view to phasing out pollution (as defined in Art. 3(8) in the MSFD), so as to ensure that there are no significant impacts on or risks to marine biodiversity, marine ecosystems, human health or legitimate uses of the sea. The MSFD aims to contribute to the coherence between the different EU policies, including the EU’s maritime policy, Common Fisheries Policy and the existing water and nature directives, such as the Water Framework Directive, WFD (2000/60/EC), Habitats Directive (92/43/EEC).

One of the key requirements of the MSFD is that Member States must take a coordinated approach to implementation, cooperating with other states within the appropriate marine region or sub-region¹, ensuring coherent and coordinated strategies. For the Mediterranean Sea, the key forum is the Barcelona Convention, implemented through the United Nations Environment Programme (UNEP) Mediterranean Action Plan (MAP). The Contracting Parties to the Barcelona Convention² developed a set of ecological objectives, operational objectives, and indicators, which reflect Mediterranean priorities and are coherent with the MSFD.

Marine Protected Areas

European seas are amongst the most productive in the world, offering a wide range of ecosystem goods and services which support the livelihoods of over 5 million people within the EU and generate a gross added value of almost €500 billion a year. Following a scoping document in 2015, a study on the socio-

¹ The Mediterranean Sea region includes the Western Mediterranean Sea, the Adriatic Sea, the Ionian Sea and the Central Mediterranean Sea, and the Aegean-Levantine Sea, while for the Black Sea no sub-regions is specified

² Contracting Parties to the Barcelona Convention include as well the maritime EPPA countries: Albania, Bosnia & Herzegovina, Montenegro and Turkey.



economic benefits of EU marine protected areas was prepared in 2016³ to help better understand the socio-economic benefits of the marine Natura 2000 network at EU level.

The EU has established a robust and ambitious policy framework to address the multiple challenges facing its marine environment and to ensure a more sustainable ecosystem-based approach to the use of its marine resources. The Habitats and Birds Directives, along with the Marine Strategy Framework Directive, are the environmental pillar of the wider Integrated Maritime Policy. The total coverage of EU seas covered by marine protected areas has more than doubled in the last six years, primarily due to the expansion of the Natura 2000 network – the largest coordinated network of conservation areas in the world. The Habitats Directive lists nine marine habitat types and 16 species for which marine site designation is required, whilst the Birds Directive lists a further 60 bird species whose conservation requires marine site protection. To the end of 2018, more than 3150 marine Natura 2000 sites have been designated, which cover almost 10% of the total EU marine area (over 550,000 km²).

In the context of candidate and potential candidates for EU Membership, it is expected those countries adopt the same ambitious goals and contribute to the efforts of preserving marine environments, their biodiversity and ecosystem services contributing to the European economy.

2 Objectives of the training and expected results

The aim of the workshop was to strengthen the national capacity of Montenegro for effectively addressing the large number of implementation challenges of the Marine Strategy Framework Directive (MSFD). In addition, the workshop also sought to provide guidance on 1) the designation of Marine Protected Areas (MPAs), and 2) the transboundary management of the Adriatic Sea.

In order to build synergies among the project activities, the workshop was organized in a way that it provided a consultation forum in which the EPPA project experts presented and discussed the study⁴ being made to provide initial recommendations for the establishment of new marine protected areas (MPAs) in the Adriatic Sea basin (two MPAs in Montenegro).

3 Highlights from the workshop

3.1 Welcoming remarks and introduction to the workshop

The welcoming remarks were given by Ms. Ivana Vojinović⁵ from the Ministry of Sustainable Development and Tourism (Directorate for environment). Ms. Ivana Vojinović expressed satisfaction with the workshop scope, which addresses a complex obligation for Montenegro. She recognized the importance of marine assets in both biodiversity and economic value, and the increasing threat posed by pollution, invasive species, waste waters and marine accidents. Montenegro has around 6000km² of sea, but no MPA's exist at the moment. Research has been done on Montenegro's marine environment, including potential sites eligible for MPA designation. There are protected water bodies, like lake Skadar, but they are inland waters. Montenegro is seeking to establish three MPAs, already included in the country's spatial planning, in order to protect marine species and habitats, but also to meet its commitments under chapter 27. On October 17, 2019, a draft law on the protection of marine environments was put forward, transposing the MSFD. In the Ministry's planning, several projects will be used to achieve the goal of establishing the MPAs. Most relevant are an IPA project that will prepare parts of the marine strategy, including the definition of GES. In addition, there are two GEF projects that seek to compliment that work with the necessary equipment, training: one aims to provide basis according to ECAP UNEP /MAP process for marine spatial planning and second is focused to provide basis for the proclamation of tree MPAs as well as basis for adequate management of those areas. The Ministry of Sustainable Development and Tourism is implementing activities that contribute to the

³ [Available online](#)

⁴ Activity 5.1.2 "Assistance for the identification of marine protected areas and exchange of best practices to achieve and/or to maintain the good ecological status of marine waters and preserve biodiversity"

⁵ Ms. Ivana Vojinović had to leave the workshop after the introductory speech due to calendar conflicts with a working group meeting, in the scope of the "Stabilisation and Association Agreement between the European Communities and their Member States of the one part, and the Republic of Montenegro, of the other part"



implementation of the MSFD on national level, mostly under the following two projects supported by IPA and GEF, currently under implementation:

- Implementation of the ecosystem approach (EcAp) in the Adriatic Sea through marine planning (SME) which should result in the harmonization of marine monitoring by applying the ecosystem approach (EcAp) with the requirements of the Barcelona Convention and contributing to the development of the spatial plan of the marine environment by applying the ecosystem approach of Barcelona conventions,
- "Promotion of Protected Area Management through Integrated Protection of Marine and Coastal Ecosystems in the Coastal Area of Montenegro" which will improve the state of biodiversity of Montenegro and define adequate treatment of protected areas in the coastal and coastal area of Montenegro. During 2019, project activities included data collection (habitat mapping and species inventory), which continues into 2020 for 3 future marine protected areas - Platamuni, Katik and Stari Ulcinj Island

Mr. Adam Iwaszko (NIRAS) and Ms. Violeta Philippitsch (UBA), representatives of the EPPA implementing consortium, welcomed the participants and provided a brief overview of the project.

Ms. Mihaela Popovici, the EPPA project water management key expert, made an agenda walk-through and explained the logic of work. The workshop agenda was structured around a number of questions, that sought to guide and focus proceedings (see agenda for details). She also provided contextualization of the work done under EPPA to support the beneficiaries with MSFD requirements and the activities done, in that context, towards providing recommendations for the establishment of new marine protected areas (MPAs) in the Adriatic Sea basin (two MPAs in Montenegro). She highlighted the importance of building on the results of previous work to avoid overlapping or contradicting efforts. Ms. Mihaela Popovici also put the question of MPAs into the broader policy context of multiple conventions (Barcelona, Basel, Rotterdam, Stockholm) and other EU policy (WFD especially). She concluded by calling to attention the importance of MPAs to achieve a better ecological status in the Mediterranean Sea and to develop better governance systems supporting sustainable development.

Mr. Mihail Dimovski, the EPPA team leader, closed the introductory phase of the workshop by further explaining the synergies between the activities of capacity building for MSFD and the MPAs recommendations in the project. He highlighted the importance of a strong engagement from Montenegro in the process to make sure the country is committed to the designation of MPAs.

3.2 Where we are, what we plan to do and what we can expect

Ms. Vesna Mačić, from the Institute of Marine Biology, started her talk by highlighting the voluminous work done already in terms of research and study of potential MPAs sites and other components of coastal and marine environment management in Montenegro. She expressed some frustration that all the work done, which would be enough to designate MPAs and better protect coastal environments, remains largely unused and is sometimes repeated unnecessarily. In her view, the main issue in Montenegro is the lack of follow through by the decision makers, who are either not informed about the work already done or do not prioritize marine conservation as an important policy outcome.

In addition, Ms. Vesna Mačić sees that technical projects continue to target the same zones, with the same type of outputs, ignoring other important coastal areas. She gave an example of trying to initiate the protection of a small marine area with a ring fence of floats off the coast. She related her experience of the coordination problems between the Municipality, the Ministry and the Environment Protection Agency. To this moment, that area remains vulnerable and without protection. She concluded that further efforts towards the establishment of MPAs should be directed at decision makers. At the technical level, experts are well aware of the problems and measures needed. She expects the alignment process with the EU to provide a decisive incentive for Montenegro to move forward on the matter.

Ms. Vesna Mačić talk was followed by several reactions. Mr. Vangelis Papathanassiou related his own experience in translating a scientific message to a policy message. According to him, it is important to



work on the science-policy interface in order to bridge the communication gap that often arises between experts and policy makers. He added that a perceived lack of data should not be a barrier to the establishment of MPAs, which are key to preserve biodiversity in the Adriatic. Enough data already exists to serve as a basis of designation. He gave the example of the Baltic Sea where MPAs were designated with limited data but proved to be highly effective in the recovery of marine environments. A representative from the Montenegro Environment Protection Agency commented that the country has provisions in its law for land and marine protected areas since 2008 and later reformed in 2014. However, the law of 2014 omits some necessary procedures which leads to inaction. In 2016 new Law on Nature Protection was adopted which is in compliance with Habitat and Bird Directive and provide adequate framework for proclamation and establishment of Marine Protected Areas. In addition, this is one of the most important challenges in regard to the proclamation of MPAs till now. Since one precondition is to establish efficient management body who will be capable to manage proclaimed sites in order to really have protected areas and not paper parks this nonexistence of management capacities was one of the major obstacles till now. The Coastal Agency, the designated management authority, lacks staff to meet its legal competences and is therefore incapable, at the moment, of managing an MPA. The EPA representative highlighted that there are already three areas planned to be designated as MPAs in the coastal plan⁶. It is expected the GEF projects will help by developing the basis for corresponding management body.

The session proceeded with a talk from Mr. Aleksandar Joksimović, from the Institute of Marine Biology. Mr. Aleksandar Joksimović agreed that the proclamation of MPAs has been slow. In his view, the existing scientific work is ready to be used to construct the necessary governance regimes. However, funding and legal clarity are essential conditions. Who will pay, implement and control those MPAs? Mr. Aleksandar Joksimović was however optimistic about the prospects of advancing towards the establishment of three MPAs in the country. Mr. Aleksandar Joksimović also talked about fisheries. Although Montenegro is responsible for only 2% of catches in the Adriatic, the country wants to be a leader in sustainability by ensuring that fisheries governance also contributes to preservation. It's an important angle, because the Adriatic coast is densely populated and the center of multiple economic activities. In this regard, there must be both vertical and horizontal communication between institutions. Strategies must be integrated across sectors and not allowed to exist in silos. He reinforced the idea that communication between scientific stakeholders and decision makers needs improvement. Finally, budget planning is essential for viable governance.

In response, Ms. Mihaela Popovici agreed that fragmentation is a problem that needs to be addressed. The only way to progress with policy and its implementation is to have clear roles and responsibilities established, where cooperation takes an important role in facilitating good governance.

Mr. Sašo Šantl, from the Institute for Water of the Republic of Slovenia, took the floor to reflect on the importance of the policy-science interface. Noting that policy can be voter driven, he reflected on the strategic value of improving people's understanding of nature protection, including the economic benefits. In his view, MPAs provide ecosystem services to the communities, for instance, supply of fish to support economic activity, tourism benefits, etc. If this can be communicated, then communities see it in their interest to exert pressure on decision makers to move forward.

Ms. Anabela Rebelo, from the Portuguese Environment Agency, complemented Mr. Sašo Šantl point about education and awareness raising by giving the example of a Portuguese project "Volunteers for Water", through which children and other community groups are shown the importance of good ecological status in waters through study visits. The children and other groups then become vehicles of awareness for others, including parents, neighbours - who have a say at the ballot box.

3.3 Where we want to arrive

Mr. Dusan Varda, from the NGO Mediterranean Center for Environmental Monitoring, presented the "Missed opportunities to create MPAs in MNE". Montenegro is one of the last countries in the

⁶ Available online: <http://www.mek.gov.me/files/1216637502.pdf>



Mediterranean Sea without MPAs, even though the country is committed to do so since it joined the Barcelona Convention. That fact, he concluded, is representative of Montenegro's readiness on the issue. 2020 is the target date to have 10% of Montenegro's marine area designated as an MPA. He sees a lack of motivation on the part of decision makers to make concrete steps. Mr. Dusan Varda then listed all the major research work and projects already done, concluding that there is sufficient data collected during last decade to establish at least 4 MPAs. In his view, there is almost no conservation activities in the field (except NGOs solitary "small" projects), there is a lack of state and local community involvement, budgets, knowledge, basic infrastructure. Further capacities and awareness raising are needed. In his opinion, no MPAs will be established in Montenegro in the next 2 years despite the existing funding through various projects.

A representative from the Montenegro Environment Protection Agency reacted by stating that the GEF/UNEP Project with the Ministry for Sustainable Development and Tourism "Promoting Protected Areas Management through Integrated Marine and Coastal Ecosystems Protection in Coastal Area of Montenegro", targeting 3 future MPAs (Katič, Platamuni and Old Ulcinj), seeks to prepare all documents for the establishment of 3 MPAs and provide the basic infrastructure for its management. Once ready, the Government can officially adopt the documents and designate the MPAs, hopefully by the end of 2020. The representative also stated the Ministry is committed to the MPAs designation.

Mr. Vangelis Papathanassiou inquired the reasons for the delay in designation. Mr. Dusan Varda believes the conflict of priorities between preservation and economic development play a significant role in Montenegro's slow pace with MPAs designation. In addition, ambiguous legal definitions of marine protection and a general lack of resources devoted to environmental protection are also to blame. He highlighted the scarcity of inspection capacities and procedures for marine issues.

3.4 Learning from other best practices and innovative tools (1) - Land based sources of pollution: assessment and control

Ms. Anabela Rebelo, from the Portuguese Environment Agency, delivered a presentation on land-based sources of pollution, its assessment and control. The presentation focused on how river waters transfer pollution from land to sea. Ms. Anabela Rebelo started by establishing how contaminated river waters can impact marine environments through hazardous substances, permitted industrial discharges, nutrient and organic matter enrichment from agriculture and biological disturbances. The main sources can be diffuse (agriculture, rain waters, recreational activities) or point sources (industry, construction, mines and quarries, cities).

Water management practices that aim at controlling pollution and protecting marine environments should model the sources into a roadmap of pollutant emissions for every basin. The basin context is important, because the prevailing conditions in each basin will affect how the water body can cope with pollutant emissions. Some might have higher, or different, capacities than others.

Ms. Anabela Rebelo gave the example of chemical industries, in particular of nonylphenols and nonylphenol etoxylates. In each production and use stage (from the initial raw material production to reuse in intermediary industries, to retail, packaging and transport and, finally, use by consumers) water is used and waste water is created, potentially impacting the basins where it is discharged (point source pollution) or consumed (diffuse pollution).

EU policy, translated into national legislations, covers multiple aspects or impacts of such pollution. For instance, IED, SEVESO, UWW, Birds and Habitats, bathing water, groundwater, WFD, etc.

In order to have the successful outcome of a good ecological status, control and assessment practices require understanding of, and data about, the water body characteristics, the pressures, and existing discharges in order to form a holistic picture of the maximum load allowed by each water body. That holistic picture can then be used to trace back the acceptable limits for pollutant emissions by source and type. Ms. Anabela Rebelo exemplified with the connection between the WFD and the IEDs limit values. Looking only at emission values neglects the water body capacity and does not provide a tool to take into account the cumulative impact of multiple pollution sources in a given water body. It is therefore necessary to understand the relationships of IED and non-IED sources with a combined approach, where the characteristics of the receiving waters, good ecological status and all pollutants



are taken into account for the catchment area, allowing for the establishment of specific ELV that meet the Environmental Quality Standards and uses.

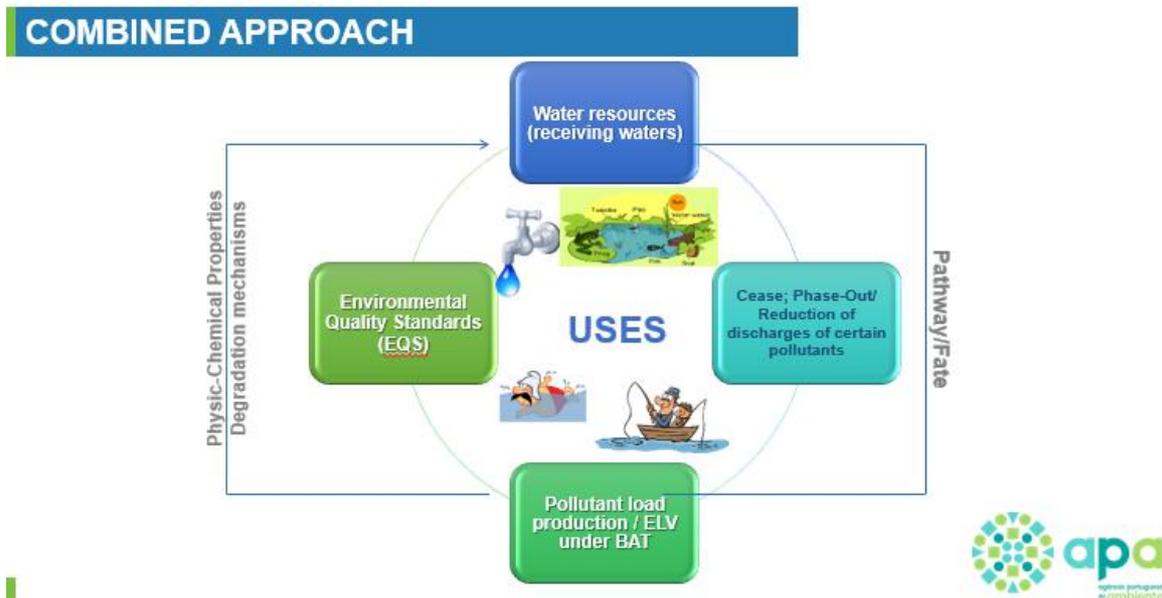


Figure 1 - Combined approach to pollution control

Ms. Anabela Rebelo also looked at water use efficiency in industry. Although the reduction of fresh water use has its merits in terms of energy savings, reduction of CO² emissions and preservation of water bodies, it also carries the risk of creating high concentration of pollutants in wastewaters, even when in compliance with ELVs, and may promote short and long term negative impacts on water bodies (acute and chronic effects on ecosystems). IMPEL has a 2017 project (still in progress) that looked at this problem and produced a checklist for permit writers to take an integrated approach⁷ under both the WFD and IED umbrellas. That integrated approach combines the water status with pressures to define specific emission limit values and mixing zones, if needed. BREF-EAL might not be enough to protect water bodies.

Ms. Anabela Rebelo finalized with an example of sludge management and agriculture in Portugal, as a case study for diffuse pollution. The country has a GIS database to track pollutants and applies metals limit values in sludge according to soil pH, microbiology, soil storage capacity and levels of metal introduced in soils over 10-year periods. The use of pesticides and fertilizers is also controlled and limited to authorized substances and dosages.

In conclusion, water management must control land-based sources of pollution by linking the different regulations and their goals to create discharge limits that maintain environmental quality standards.

3.5 Learning from other best practices and innovative tools (2) - Management models and measures for effective management of MPAs: sharing knowledge, best practices and challenges

Mr. Vangelis Papathanassiou, former Research Director of the Hellenic Center of Marine Research, presented a summary of management models and measures for effective management of MPAs: sharing knowledge, best practices and challenges.

Mr. Vangelis Papathanassiou gave an overview of the pressures to Marine Protected Areas in the Mediterranean. Among the most noteworthy are industrial and chemical pollution, tourism, habitat and biodiversity loss, urban pollution, maritime activities, marine litter, eutrophication, coastal erosion, overfishing and aquaculture, and invasive alien species. All the pressures are compounded by the

⁷ Farabegoli et al. (2018) Industrial Water Management guidelines: A guidance for IED permit writers. IMPEL – European Union Network for the Implementation and Enforcement of Environmental Law, Brussels.



expected impacts of climate change. There are management tools, including EU legislation, but synergies, cooperation and a more holistic approach are needed across countries and regions to create meaningful impact. In this regard, MPAs are recognised and proved to be a powerful tool for biodiversity protection and conservation of marine resources. In addition, public policy needs to rely on a better science and policy linkage to create awareness and promote knowledge-based actions.

Regarding the situation in the Adriatic, there is a loss of habitats due to coastal construction/ coastal defence structures (e.g. urbanisation, tourism), there is physical damage of benthic habitats (e.g. fishing pressure from bottom trawling, hydrocarbons extraction, discharge and dredging areas), and other causes of harm like the introduction of NIS (e.g. ports) and underwater noise (e.g. maritime traffic, military activities). Currently, 26% of existing MPAs in the Adriatic are located in low anthropogenic impact zone, while almost 8% of the existing MPAs are in high to very high anthropogenic impact zones. All in all, the Adriatic Sea has only 5.8% of its area as MPAs, whereas the Aichi Target 11 calls for at least 10%, and the potential new target will call for 30%.

The situation in the Mediterranean isn't much better. The Total MPA and OECM coverage is 6.81% of the Sea, with a majority of countries having areas less than 3% of their sea covered. Only 5 countries are above the 10% target. In addition, most of the MPAs are too small to sustain ecosystem services. EU Member States MPAs are often less than 30km², whereas in the Adriatic 70% of MPAs are 5km² or less.

In the future, attention should be placed not only on MPAs but on their connectiveness. A network of MPAs can use the already protected spaces as "nodes" of networks covering coastal, offshore, and deep-sea systems, while the links would be the site of conservation and management measures, under MSFD, to achieve GES. This could create an effective network of marine protected areas instead of "paper parks". The Barcelona Convention can be an important tool in achieving that goal as it sets ambitious policy goals, namely the 1) establishment an ecological network of MPAs which is representative and connected, 2) effective, efficient and sustainable management, 3) integration on a territorial level and with other sectors while promoting the sharing of environmental and socio-economic benefits, and 4) the increase of financial resources to establish and maintain such network.

Another important driver for MPAs is science-based management. Mechanisms are needed to monitor the ecological efficiency of the adopted measures in MSFD. In parallel, an assessment of human pressures (e.g. intensity, frequency and extent) is crucial to improve management measures inside/outside MPAs, and the conservation capacity of the existing MPAs. When associated with social and economic benefits for local communities, protection produces positive conservation outcomes, and has a higher acceptance and support by stakeholders.

Mr. Vangelis Papathanassiou concluded with the best practice of Cabo de Palos–Islas Hormigas MPA (CPH-MPA- Spain). Established in 1995 as a reserve of fisheries interest, with a managed no take zone, a buffer zone, and regions of restricted access, it has been a tool for economic development. Due to the success of the fisheries reserve, the number of dives per year in Cabo de Palos (Spain) increased by 225% between 1998 and 2010, which led to local added value of EUR 870,000 per year and an additional 20 local jobs. He also mentioned the Torre Guaceto MPA, a 22km² coastal area where a fishing ban was implemented since 2001, allowing only artisanal fishing catch within the MPA buffer zone and in the external unprotected areas. Since 2008, catches within the buffer zone were always higher, when compared to unprotected areas (in some years with a 5-fold increase).

3.6 Learning from other best practices and innovative tools (3) - GIZ project: Integrated Waste Management and Marine Litter Prevention in the Western Balkans

Ms. Jelena Peruničić, National Coordinator for GIZ in Montenegro, presented the Integrated Waste Management and Marine Litter Prevention in the Western Balkans (MLP) project. It is a regional project in Albania, Bosnia and Herzegovina and Montenegro running from 2018 to 2022. The project's goal is to involve local and national stakeholders in waste management and circular economy and identifying the causes and effects of water pollution. The project also seeks to reduce the amounts of waste that enter the Mediterranean Sea and contributory rivers.

In terms of prevention of marine litter, the project already supported the Municipality of Ulcinj (Montenegro) with waste equipment in the value of 150.000EUR (180 containers - 80 for source



separate collection, truck with crane for the collection of littered waste, chipper). It also provided a study tour to Germany on waste management for technical staff from the 3 countries, in November 2019. Several items were presented during the study tour, including subjects such as: options for the improvement of the collection of household waste / prevent leakages; how to introduce waste separation at source even with little means; how to start a resource centre (for recyclables and/or special waste); how to deal with bulk and inert waste; presentations on how to manage a landfill; improving from basics to sanitary standards; consumer engagements / awareness campaigns: what can a SWM company do, etc.

In the future, the project will develop recommendations to reduce plastic pollution for 10 municipalities or communes in the 3 countries; it will support 6 pilot projects by local initiatives or start-ups with innovative approaches to reducing plastic products, preventing plastic waste and avoiding unregulated disposal, and it will organise trainings and capacity building activities.

Another component will be the modelling and assessing of waste leakages in river basins using the methodology of the Waste Flow Diagramme⁸. Using existing data on waste management, plus field visits, the methodology will estimate what goes into the environment instead of measuring what can be found in the environment. The main cardinal results will be estimates on plastic waste generation totals, collected and treated amounts, and remaining, “unmanaged” waste. The analysis will be done on 2 cross border river sub-basins, the Buna/Bojana (Montenegro and Albania), and the Neretva (Croatia and Bosnia and Herzegovina). The result will be a common measuring and monitoring tool for land-based sources of pollution that can serve as the basis for tangible and realistic actions and targets to prevent marine and riverine littering.

Finally, the project will also assist in the Drafting/adapting/improving legal instruments aiming at the prevention/reduction of marine litter, including 3 jointly signed Agreements on reduction of the plastic waste in Mediterranean Sea and water courses.

3.7 Learning from other best practices and innovative tools (4) - Green infrastructure concept: connecting biodiversity and human wellbeing

Mr. Sašo Šantl, from the Institute for Water of the Republic of Slovenia, presented the Slovenian good practice to support MAPs designation through the green infrastructure concept: connecting biodiversity and sustainable development. Mr. Sašo Šantl started by characterizing the Slovenian coast. The natural part of the coast represents 24,6 % of total coastline. The most typical, artificial structures that changed the natural coastline are: Breakwaters, Seawater/Revetments/Sea dikes, Jetties and Ports/Marinas.

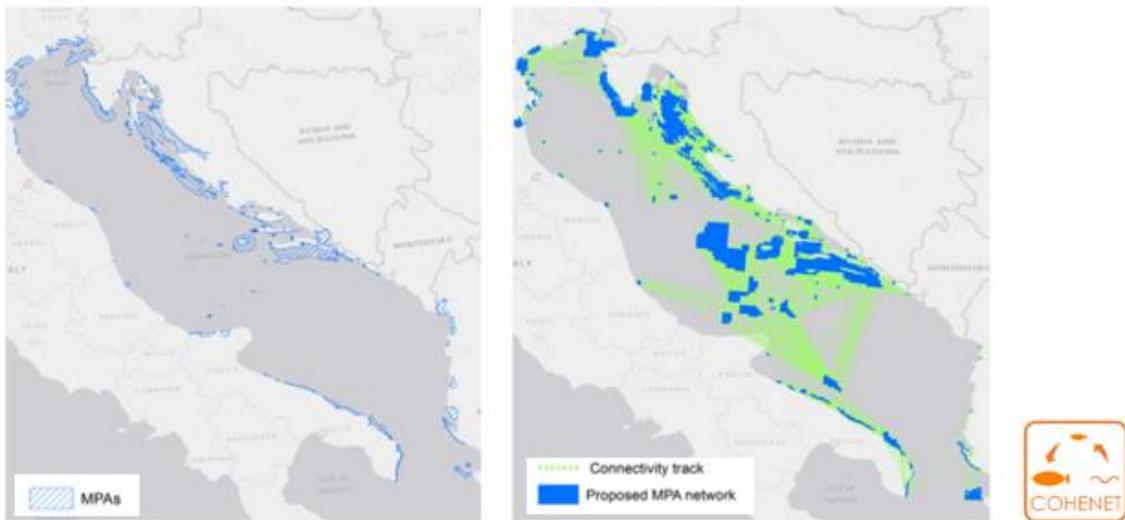
The basis for the establishment of an MPA were the already existing protected areas: valuable nature features, ecologically important areas, Natura 2000 sites and protected areas.

The Slovenian MPAs are relatively small due to country's available coastline. Considerations on that led Mr. Sašo Šantl to reflect on the fact, already broached in previous sessions of the workshop, that small MPAs can only be sustainable for habitats and species if they are connected by corridors to other MPAs. Such corridors should also fall under some type of protection, for instance, fishery restrictions. In order to strengthen the argument, he showed the map of Adriatic MPAs, a result from the COHENET project, showing the existing MPAs and proposed new MAPs, including connecting corridors.

⁸ Available online: <https://www.siwi.org/publications/source-to-sea-framework-for-marine-litter-prevention-preventing-plastic-leakage-from-river-basins/>



MPAs of Adriatic Sea - result from COHENET project



https://ec.europa.eu/environment/marine/publications/index_en.htm

Figure 2 - Existing and proposed Adriatic MPAs and connectivity

Among the recommendations of the COHENET project, Mr. Sašo Šantl highlighted some important recommendations: to improve the knowledge on the status of other effective area-based conservation measures (OECMs) and their potential added value towards protection, better knowledge of the socio-economic and cultural values and the potential benefits for protection, and enhance ownership by the public through communication and outreach.

He then went through the results of the SUPREME project - Supporting maritime spatial Planning in the Eastern Mediterranean, which sought to support the implementation of Maritime Spatial Planning in EU Member States, and to launch and carry out concrete and cross-border MSP initiative between Member States. That project resulted in the definition of different layouts for the Slovenian sea and coast, including marine traffic corridors across Slovenian waters that reduce impact on the coastal MPAs, mapping for fisheries and aquaculture sites, protection areas, both at sea and on the coast, and touristic use of the different coastal zones.

Mr. Sašo Šantl then introduced the concepts of green infrastructure and ecosystem services. Green infrastructure is a strategically planned network of natural and semi-natural areas with other environmental features designed and managed to deliver a wide range of ecosystem services such as water purification, air quality, space for recreation and climate mitigation and adaptation. This network of green (land) and blue (water) spaces can improve environmental conditions and therefore citizens' health and quality of life. It also supports a green economy, creates job opportunities and enhances biodiversity. The Natura 2000 network constitutes the backbone of the EU green infrastructure. He then listed a wide range of ecosystem services within four categories: provisioning (crops, plant resources, drinking water, etc), regulation and maintenance (retention of nutrients, flood risk mitigation, regulating temperature, etc), cultural (education, science, recreation, etc), and abiotic natural capital (hydropower, navigation, sediments). In the case of Slovenia, the marine environment provides multiple ecosystem services, including salt production, erosion prevention, water purification, tourism, education, fisheries, among others.

For a Green Infrastructure to be recognized and valued, it is important to make sure it is recognized as an area for biodiversity and/or the source of important ecosystem services for the communities relying on it. A possible way forward to use both concepts in support of MPAs, and other nature protection, is to include them in multiple scale spatial planning and to harmonize them with developmental objectives, thus promoting sustainable development.



Mr. Sašo Šantl exemplified how Slovenia did its green infrastructure mapping and development. They started by identifying all existing sources of biodiversity and ecosystem services based on existing policy and legislation (Natura2000, protected areas, bathing waters, protection forests, cultural heritage, etc) and described its current use versus existing use plans. This led to the definition of spatial subunits with different layers according to use, determination of value for each layer and subunit and scoring that into a final analysis that originated a Slovenian Green Infrastructure map and further plans for development. The planning exercise resulted in the recognition of GI's potential for improved biodiversity, tourism, recreation, low CO₂ emission mobility, wind and noise barriers, better microclima, etc. Some important notes to the process were also made. Only official data and existing legal basis was used. An inter sectoral bottom – up approach was taken and a logic of connecting local, national, and regional development permeated the approach.

Mr. Sašo Šantl closed his presentation by calling attention to the challenges of using a green infrastructure approach, namely the need for extensive spatial data analyses, the need to invest in improving GI development (corridors, systems) within dense urban, commercial areas, the transboundary nature of GI corridors requiring cross border cooperation and potential changes to agricultural changes in certain areas (green belts, semi natural farming etc.). Finally, GI has the potential to become a guarantee for human wellbeing and long-term resilience for the global environment, but changes in social and economic thinking are needed.

3.8 Discussion on the issues surrounding potential Marine Protected Areas (MPAs) in Montenegro

The workshop agenda foresaw the use of working groups to discuss topics related to the creation of MPAs in Montenegro and in the Adriatic Sea in general. Considering the dynamics created during the first day of the workshop, where participants were active in discussion after each speaker, the workshop chairperson, Ms. Mihaela Popovici, decided to change the approach and have, instead, a plenary discussion guided by 5 questions:

1. Does the dense use of the Adriatic Sea pose on a potential threat on existing or new MPAs?
2. What can be done?
3. What do we lack for effective management of MPAs (considering that MPAs management is weak in most of the Med countries at the moment)?
4. What actions could be done to reach both the conservation and socio-economic values in MPAs?
5. How can we overcome gap in knowledge or of lack of data at national level to decide and declare new MPAs?
6. From the listed questions/topics which are those that can be further examined as specific topics for tailor-made training for one country or during regional workshops under EPPA?

In the discussion, the participants agreed that the dense use of the Adriatic Sea does pose a potential threat to existing and new MPAs. In terms of human generated threats, tourism was considered as one of the most pressing. The population of the Adriatic increases 10-fold during the summer months creating a number of related threats like wastewater, solid waste, urbanization, uncontrolled recreational activities (sport fishing for instance), increased emissions of CO₂, etc.

In terms of what lacks for the effective management of MPAs (present and future) is effective control and inspection systems for coastal and marine activities. In this regard, the participants agreed that Inspection Services need a major investment in terms of human resources, equipment, clear procedures and legal competences, capacity building and cooperation with other countries. The participants see inspection as a major tool to improve enforcement and governance, although there were pessimistic views on the possibility of improving inspection in the short- and mid-term.

Participants also noted judicial inefficiency in the prosecution of infringements as a key problem. Lack of successful court cases serves as an upstream disincentive to the enforcement chain, emptying efforts at the inspection level. One possible way to overcome this, might be to establish a system of gradual penalties that makes it easier to successfully penalize infractions and to start enforcement education



campaigns where infractions are not penalized initially, but the offenders are explained exactly the consequences of their actions to themselves, to the community and to the environment.

The participants also recognized the importance of coastal spatial planning to structure human activity and presence in the coastal areas. The attending public consultations and environmental impact assessments will also provide more robust governance and the possibility to define clear mitigation measures where the pressures will be higher. The participants noted that spatial planning should be accompanied by the improvement of enforcement as a necessary condition for success.

Some participants suggested that marine protection can also make use ecosystems services in order to create cost recovery mechanisms that can fund better enforcement systems and create prosperity for local communities.

There was consensus that more awareness raising, and public education is necessary, in particular targeting children as that will ensure sustainable, generational outcomes.

There was also consensus that the appropriate decision makers must be present and engaged in any forum where the establishment of MPAs is discussed. The participants agree that there is enough technical work supporting the creation of MPAs in Montenegro, and that most of the action should now happen at the level of decision makers to drive the process forward. The decision makers to be involved are the Ministry Sustainable Development and Tourism, the Ministry of Agriculture and Rural Development and the Directorate for Water.

In line with that, participants also see inter-institutional cooperation as very important (and currently missing). Inter-sectoral policies are key to achieve a good environmental outcome. Cooperation also extends to the scientific-policy-enforcement nexus. Policy and enforcement need to be data and knowledge driven. It is the only way to achieve consistent and effective results.

Finally, participants agreed that better budgeting and financing is a cross-sectoral need. Investments need to be planned, and budgets must be sustainable, allowing for maintenance of investments and capacities in the long run.

3.9 Working together towards MPAs designation - Outline of the report containing methodology and recommendations for the identification of two possible MPAs in Montenegro

The workshop was concluded with a presentation from Mr. Vangelis Papathanassiou, former Research Director of the Hellenic Center of Marine Research, on the EPPA study recommending possible sites for MPAs in Montenegro (EPPA activity 5.1.2) - methodology and report outline. The Study will be based on the available scientific information on the marine biodiversity from national or international sources, and relevant projects/programmes such as:

- The analysis of the MPAs network in the Adriatic of the project "Achieving coherent networks of marine protected areas: analysis of the situation in the Mediterranean Sea - COHENET (EC)
- MedMPAnet (Regional Project for the Development of a Mediterranean Marine and Coastal Protected Areas Network through the boosting of MPAs Creation and Management)
- AdriPan (ADRIatic Ionian maritime spatial PLANning)
- The work already done in the framework of the Barcelona Convention and by IUCN

Mr. Vangelis Papathanassiou explained the methodology consists of 3 phases. In the first phase the project team will review existing literature and examine the priority areas for MPA designation in Montenegro. In addition, it will assess the legal and institutional arrangements in Montenegro, relevant to the establishment and management of the MPAs. The second phase will define a clear set of objectives for MPAs management that would cover requirements of marine biodiversity conservation, economic development, recreation or species recovery objectives, all driven by both the management agency and the interested stakeholders and elaborate recommendations regarding legal, institutional, management, socioeconomic, communications and reporting requirements, and stakeholder's involvement. The third phase will propose two new MPAs in Montenegro, that would be designated under regional or global agreements and would comply with the relevant designation criteria.

The final study shall be submitted for approval to the EC DG ENV and relevant beneficiaries.



The study will be followed by a regional workshop on October 2020 on the establishment and management of the proposed marine protected areas for the 3 countries involved (Albania, Bosnia and Herzegovina, Albania) and 5 proposed MPAs.

4 Conclusions

The workshop resulted in an important debate on the *status quo* of designating and managing marine protected areas in Montenegro. The information shared by the participants, and the accompanying recommendations, will be taken into account while implementing EPPA Activity 5.1.2 “Assistance for the identification of marine protected areas and exchange of best practices to achieve and/or to maintain the good ecological status of marine waters and preserve biodiversity”.

Montenegro forecasted the creation of 3 MPAs in its spatial plan⁹. The objective had been to designate all 3 by the end of 2020. Under ongoing projects (IPA and GEF), Montenegro now expects to designate at least one MPA until the end of 2020.

The participants agreed that, after 10 years of technical studies, there is enough available knowledge and scientific information to move ahead with the designation of the planned MPAs. The driver of the process should now be the decision makers at the highest level of government, namely the Ministry of Sustainable Development and Tourism, the Ministry of Agriculture and Rural Development and the Directorate for Water.

Better horizontal and vertical integration and communication is needed between all national stakeholders in order to promote cooperation and cross-sectoral policy synergies. In particular, the science-policy nexus needs to improve in order to allow knowledge driven governance of natural heritage and assets.

The need to improve the nature protection enforcement system in Montenegro was noted. It is necessary to ensure effective management of future MPAs and existing nature protection laws. There is currently a lack of enforcement capacities in the inspection services and forseen management body, that should be resolved with additional human resources, equipment and training. In addition, participants called for clearer procedures and legal definitions to be the framework on which inspection capacities are built. The judicial system should also improve its prosecution track record of environmental infringements.

The participants called for awareness raising, education and better communication regarding nature conservation, especially for marine and coastal environments. The potential conflict of environmental protection claims versus economic development aspirations can be mediated by the introduction of ecosystem services into Montenegro’s governance structure. The objective of which would be to communicate the value and importance of natural assets to affected communities, but also to open the possibility for economic gain and cost recovery measures supporting the sustainable management of such assets.

Finally, participants recognized the importance of identifying funding sources and establishing long term budget planning to build and maintain cumulative gains in governance.

Workshop outputs

The workshop’s main outputs were:

- Review of existing work and documentation relating the establishment of Marine Protected Areas in Montenegro
- Enhanced understanding of the challenges and tasks connected with MSFD implementation and the establishment of Marine Protected Areas
- Encouraged dialogue between the multiple stakeholders in Montenegro (State, NGOs and Research) regarding the establishment of MPAs and other nature conservation matters, including fisheries

⁹ See above a weblink to the plan



- Enhanced exchange of experiences between Montenegro and EU Member states on MSFD and MPAs
- Identified key obstacles to the implementation of MPAs in Montenegro
- Established contacts and information exchanged between the relevant stakeholders in Montenegro and the EPPA project team responsible for the development of a study with initial recommendations for establishment of new marine protected areas (MPAs) in the Adriatic Sea basin (project activity 5.1.2)

5 Evaluation

The participants were asked to evaluate the workshop post-factum. They received a paper format questionnaire at the end, consisting of six questions along two pages, in order to assess the impact of the workshop in light of the EPPA project objectives. Later, the participants also filled in a second questionnaire circulated electronically by TAIEX, asking them to provide feedback on technical and logistical aspects. This report presents the results of both evaluations.

5.1 The EPPA impact evaluation

The EPPA impact evaluation questionnaire is composed of six questions, the first five looking at the specific impacts of the workshop, and one asking the respondents to offer their opinion on their country's priorities and suggestions for future EPPA events.

The first five questions are "agree/disagree" questions, in a scale from "strongly disagree" to "strongly agree". Each includes a space allowing the respondents to explain or offer more information about their level of agreement. The final question is of open-ended type.

The results of each question are presented here, one by one. Nine participants filled in the paper-based questionnaire. The number of answers received from participants does not ensure a representative enough sample to fully evaluate the workshop. Nevertheless, the results can be taken as indicative.

Question 1 - The event agenda, and corresponding outcomes, were relevant to my country's priorities and needs in the given subject

The agenda relevance and its outcomes were rated by 78% of participants positively. 22% were neutral. Overall, the project team concludes the agenda and the work it guided met the expectations. One participant noted that the presented facts were already well known, which can be explained by the fact the workshop reviewed the most prominent work done already in Montenegro regarding the study of prospective marine conservation areas.

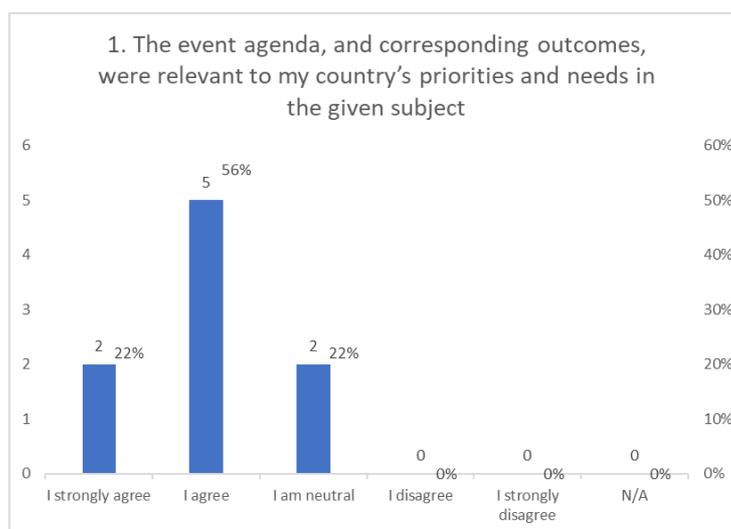


Figure 3 - Agenda and outcomes relevance



Question 2 - My work performance will benefit from the event in terms of knowledge/expertise gained, contacts established, best practices, others

The workshop also had a positive contribution to the participants' daily professional praxis with 66% of positive answers and 33% being neutral on their assessment.



Figure 4 - Better work performance

Question 3 - This event contributed to enhanced regional cooperation in the EU candidate countries and potential candidates in the implementation of the EU environmental acquis

89% of participants assessed the workshop as contributing to regional cooperation among project beneficiaries. Even though the workshop was national in scope, the topic is transboundary and requires mutual understanding and cooperation for the successful establishment and management of MPAs in the Adriatic Sea.

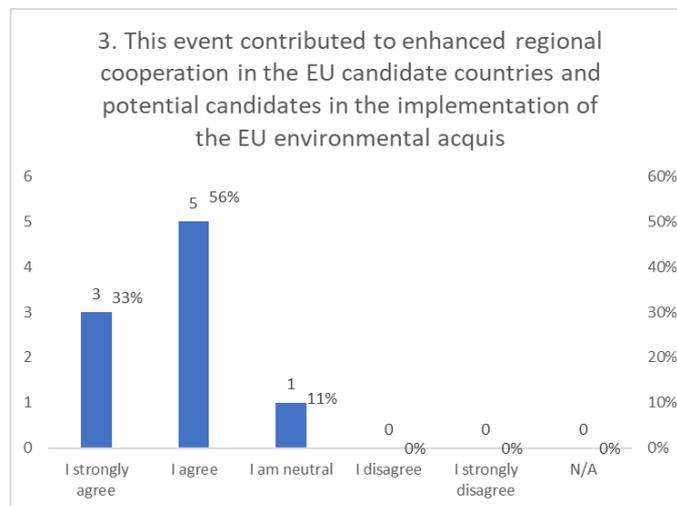


Figure 5 - Regional cooperation

Question 4 - This event contributed to increased alignment of my country's legislation with the EU environmental acquis, and its enforcement

44% strongly agreed and 22% agreed the workshop contributed to the alignment with and enforcement of the relevant EU Acquis. Participants saw the enlargement agenda as a key driver to improve legislation and enforcement of nature protection. 33% were neutral.



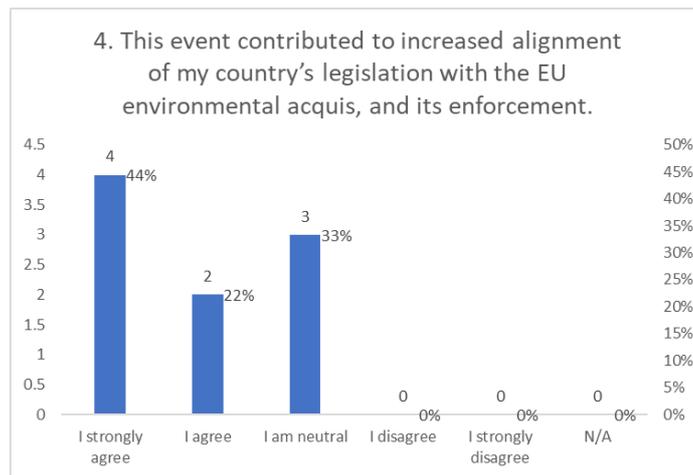


Figure 6 - Alignment with the EU acquis

Question 5 - This event contributed to increased capacity and technical knowledge of my organization to deal with transboundary environmental issues, in line with EU acquis

Regarding the workshop's contribution to enhance capacities for transboundary cooperation in marine issues, the answers were divided. 63% strongly agreed or agreed. 33% were either neutral or disagreed. This might be related with the fact the workshop put greater emphasis on exchange of information as opposed to training. One of the objectives was to collect and systematize information on the status of MPA discussions among stakeholders in Montenegro.

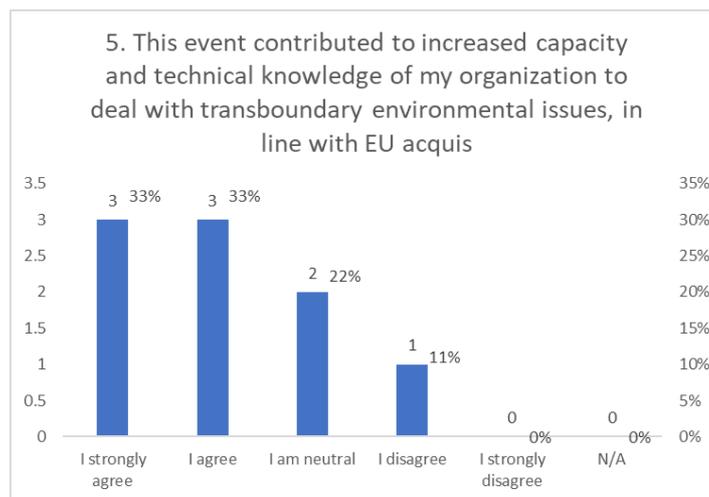


Figure 7 - Capacity for transboundary issues

Question 6 - Do you have general recommendations, for the future, regarding the topic and how best to address your country's needs?

A common thread identified by several participants was the need to involve the higher political levels of national institutions. They highlighted the need for greater involvement of the decision makers in the Ministry of Sustainable Development and Tourism and the Ministry of Agriculture and Rural Development. In line with that, more communication between stakeholders was noted as a necessity and one of the participants also called for more cooperation among institutions to share and develop useful data for protected area management and identification.

Some general priorities were also listed by the participants. They see as important the need for further education and public awareness raising on the topic of MPAs. The country would continue to benefit from capacity building initiatives. Finally, some of the participants called for identification of further sources of funding and concrete budget proposals for the implementation and control of nature conservation policies, including protected areas.



For future occasions, one of the participants asked for more examples of sustainable MPAs and their functioning.

5.2 The TAIEX technical and logistical evaluation

To be completed once TAIEX evaluation data is made available.

