MarSP
Macaronesian Maritime Spatial Planning

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"2ND WORKSHOP – SECTORIAL MEETING"

Sector: aggregates extraction

Madeira

MarSP Deliverable:

D.2.2. Local and regional stakeholder workshops

May 2019

MarSP
Macaronesian Maritime Spatial Planning

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Summary

The MarSP project intends to engage stakeholders from the beginning of the process, considering the various stages of the maritime spatial planning process in Macaronesian regions, and applying methodologies in line with European ethics guidelines and requirements.

The Autonomous Region of Madeira is a pioneer in the process of maritime spatial planning in Macaronesia, and the spatial plan developed over the last three years has already been submitted and waits to be approved.

Taking advantage of this condition and once Regional Government of Madeira want to do the revision of the Situation Plan in the next five or six years, it´s important the continuous integration of the stakeholders in this process. In this way will be developed during these years, several meetings with the stakeholders of each activity. The first meeting will be dedicated to aggregate's extraction activity who has a large importance for the Regional economy.

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ARM	Autonomous Region of Madeira
DROTA	Direção Regional do Ordenamento do Território e Ambiente
ICES	International Council for the Exploration of the Sea
WGEXT	Effects of Extraction on Marine Sediments on the Marine Ecosystem

1. Introduction

This report will describe the 2nd workshop developed in the Autonomous Region of Madeira (ARM), as part as project MarSP – *Macaronesia Maritime Spatial Planning*, work package 2 – *Mapping the current conditions and creating a vision for the MSP in Macaronesia* in the Task 2.1. *Stakeholders Engagement*.

In the process of maritime spatial planning, the stakeholders are an important key element once they are the principal actors in the maritime space. This way, it´s important to ensure they have an active participation.

Regarding to the process of maritime spatial planning, the Autonomous Region of Madeira (ARM) is at an advanced stage when compared with the other regions of Macaronesia, the Region decided to do sectorial meetings.

The process of maritime spatial planning was developed by the Situation Plan of Maritime Spatial Planning. This plan presents itself as the present and potential portrait of the regional maritime space through the representation and identification of the spatial and temporal distribution of existing and potential uses and activities and the recognition of the natural and cultural values with strategic relevance for the environmental sustainability and intergenerational solidarity. It is currently waiting for approval by the Government of Portugal through the Council of Ministers.

The Situation Plan was quite participative, with diverse stakeholders composed by representatives appointed by the various public bodies with responsibility in the areas of the sea, the environment, nature conservation and the sectors of uses or activities developed in the maritime space, as well, as a representative appointed by the Association of Municipalities.

The stakeholders were an important element in the process of the maritime spatial planning once they collaborated actively through the sending of contributions considering their actuation area. These contributions included the activities or uses areas in the maritime space, marine protected areas and projects or plans that developed in the maritime space. They also contributed positively for the resolution of conflicts between uses and activities.

In this way, having in consideration the goals of the task *2.1. Strategy Engagement* and the report develop by the task leader with the dynamics that needed to be developed, doesn't make sense duplicate the work have already done. However, it will make sense, the continuous involvement of stakeholders for a future review of the Situation Plan. This will permit the active participation in the process and making decisions that are coherent and that can give a more adequate response to the interested parties, promote the maritime economy and at the same time, protect the ecosystem.

This will be developed through sectorial meetings with the Regional sectors. For this Task, it will be developed two workshops/sectorial meetings: the first with the aggregate´s extraction and the second with the big game fishing. This report is the result of the first sectorial meeting.

2. Purpose

The aggregates extraction is an activity with some expression in the Region because it´s not possible to proceed to a sand extraction in terrestrial space. The aggregate extraction materials in the seabed can only be carried out as a necessary measure for the economic sustainability of the Region, being only destined to the needs of regional consumption and sustained in studies of sedimentary quantification, qualification and dynamics of the seabed.

Once this activity is important for the Region but have several impacts in the ecosystem (i.e. destruction of the seabed), the 2nd workshop will focus in two components: the economic part and the environmental part. This will be divided in two sessions: the first one will board the economic part with the regional stakeholders related with this sector; the second part will board the consequences of this activity in the marine ecosystem.

3. Workshop structure and objectives

During this workshop, which was established it was intended to achieve the following objectives:

- Present the objectives of the MarSP project;
- Maritime spatial planning made through the Situation Plan;
- The economic evolution of the sand extraction at Region;
- Discussion with the aggregate's extraction enterprises about this activity;
- Present to the team ICES – WGEXT the project MarSP;
- Practical case of the aggregate's extraction in Region.

This workshop will permit to collect new information about the status of this activity in the perspective of the stakeholders, to present the new decree law´s to be applicate to this activity in the Region and the importance of their continuous participation on the process of the maritime spatial planning.

The second part it will be dedicated to the environmental component. For this part, the Region received the *International Council for the Exploration of the Sea* (ICES) – *Effects of Extraction on Marine Sediments on the Marine Ecosystem* (WGEXT). The annual meeting of this work group was in Region and Regional Directory of Territorial Planning (DROTA *in Portuguese*) was decided to promote some meetings with them and incorporate their annual work inside this workshop. This allowed this group to know how is developed the process of aggregate extraction.

3.1. Workshop detailed agenda

The 2nd stakeholder's engagement workshop (Task 2.1) was held on Madeira Island on the April 8th and took into consideration the current state of the Region in relation to maritime spatial planning.

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MARSP

Macaronesian Maritime Spatial Planning

GA nº EASME/EMFF/2016/1.2.1.6/03SI2.763106

MACARONESIAN MARITIME SPATIAL PLANNING – *workshop* com grupos de trabalho – Extração de Inertes

Data: 8 de maio de 2019

Hora: 11:00 – 17:30

Local: Sala de Reuniões do Gabinete - Secretaria Regional do Ambiente, Rua Dr. Pestana Júnior, nº 6, 9064 – 506 Funchal

Ordem de trabalhos:

11:00 - Objetivos do projeto MarSP (Dr.º Vítor Jorge)

11:10 - O ordenamento do espaço marítimo pelo PSOEM (Dr.ª Isabel Lopes)

11:20 - A extração de inertes na RAM (Eng.º Manuel Ara Oliveira)

11:30 - Discussão

12:30 – Encerramento da primeira fase de trabalhos

14:30 – Boas vindas à equipa do ICES/WGEXT (*Effects of Extraction on Marine Sediments on the Marine Ecosystem*)

14:40 – Projeto MarSP - objetivos e resultados preliminares

15:00 – Assistir ao desenvolvimento da atividade de extração *in loco*

17:30 – Encerramento

Figure 1 – Workshop agenda.

Table 1 – Workshop agenda.

Presentation: *MarSP* project objectives
Presentation: The maritime spatial planning made by PSOEM
Presentation: The sand extraction in Region
Debate: The sand extraction
Ending of the first session of the workshop
Welcome to ICES – WGEXT team
Presentation: *MarSP* project – objectives and preliminary results
Fieldworld: Assisting the developing of the aggregate extraction activity
Ending of the second session of the workshop

This workshop was divided in two parts. The first part is a sectorial meeting with the regional enterprises related with the aggregate's extraction. In this sectorial meeting was presented the project MarSP, the Situation Plan, the status of the aggregate's extraction in the Region and the new regulations (table 2). After the presentations, was discussed the new regime of aggregates extraction and future perspectives for this sector.

In the second part, DROTA received the ICES – WGEXT team in the Region. They made the annual meeting about aggregates extraction in Region and DROTA invite them to attend to this workshop. Was present to the team the project objectives and results of the MarSP and was demonstrated to the team the developing of the aggregate extraction activity *in loco*.

Table 2 – Speakers in workshop presentations

Speakers	Role	Topic covered
Manuel Ara Oliveira	DROTA subdirector	Aggregates extraction
Vitor Jorge	DROTA Technician and MarSP steering committe	MarSP project
Isabel Lopes	DROTA Technician and MarSP advisory board	Maritime spatial planning: Situation Plan

3.2. Biographical notes

In the next table is some biographical notes about the speakers in this workshop. These speakers have experience in the maritime spatial planning process.

Table 3 – Biographical notes of the speakers.

	Name	Biographical Notes
	**Manuel Ara Oliveira**	Biological engineer, with 20 years of professional activity, big part as a leader of many sectors of the public administration: environment, planning, management of the coastal coast and, most recently, affairs of the sea. Is a regional subdirector for sea affairs, and the focal point for the implementation of the framework directive marine strategy, framework directive maritime spatial planning, and Mar-Portugal plan. He is vowel of the committee of the public maritime domain.
	**Vítor Jorge**	Vítor Jorge is graduated in geography from the University of Porto. He worked for Directorate-Regional for Geographic Information Systems and Cadastre where has developed several works in the scope of thematic mapping and spatial analysis and in the implementation of INSPIRE directive. Through the SNIMaR - National Information System of the Sea, he was involved in the prospection and treatment of thematic data of marine environment, and in the implementation of INSPIRE specifications and guidelines. Subsequently, he coordinated the geospatial component of the MSP Situation plan for the Autonomous Regions of Madeira. He participated in several projects such as Mistic Seas and PLASMAR and currently integrates MarSP Steering Committee. He currently works for Regional Directorate for the Land Planning and Environment (DROTA).
	**Isabel -Lopes**	Isabel Lopes holds a degree in Geography and Regional Planning and a Master's in Territory Management from New University of Lisbon. She has carried out several works in the area of maritime spatial planning and the sea cluster, which resulted in the master's thesis, Proposal for the constitution of a Sea Cluster in the Autonomous Region of Madeira and the role played by maritime spatial planning, as well as some papers and oral communications. It was also responsible for the elaboration of the Situation Plan for maritime spatial planning (subdivision of Madeira) and is currently working on the creation of metadata for the sea area under the PLASMAR project.

4. Workshop results

Targeted workshop audience

For the first part, attend to this workshop, all the regional enterprises related with the aggregate's extraction in Region. In this moment, there are 7 enterprises dedicated to this activity, most of them, with several experience in this sector.

Table 4 – List of stakeholders who attended to the first part of the workshop.

Entity/stakeholders
António Pereira e Filhos
Arimadeira
Arinerte
Basaltareias
Empresa de Areias da Madeira
Socinerte
Solinertes

The second part count with the presence of the ICES-WGEXT team and one member of Hydrographic Institute.

Table 5 – List of stakeholders who attended to the second part of the workshop.

Entity/stakeholders	Description
ICES- International Council for the Exploration of the Sea	The International Council for the Exploration of the Sea (ICES) is an intergovernmental marine science organization, meeting societal needs for impartial evidence on the state and sustainable use of our seas and oceans. The goal of ICES is to advance and share scientific understanding of marine ecosystems and the services they provide and to use this knowledge to generate state-of-the-art advice for meeting conservation, management, and sustainability goals. They have a network with more than 5,000 scientists from over 700 marine institutes at 20 member countries. More than 1 500 scientists participate in their activities annually. Through strategic partnerships their work in the Atlantic Ocean also extends into the Arctic, the Mediterranean Sea, the Black Sea, and the North Pacific Ocean. They work collaboratively with their member countries, partners, clients, and stakeholders, as well as the wider marine science community, to create and share knowledge, data and advice. This Council also provide training and networking opportunities for the new and emerging generation of marine scientists and support the work of Early Career Scientists. They provide impartial scientific advice for a wide range of recipients, including their member countries and international organizations and commissions, such as the Oslo Paris Commission (OSPAR), the Helsinki

	Commission - Baltic Marine Environment Protection Commission (HELCOM), the North East Atlantic Fisheries Commission (NEAFC), the North Atlantic Salmon Conservation Organization (NASCO), and the European Commission (EC).
WGEXT – Effect of Extraction of Marine Sediment on Marine Ecosystem	The Working Group on the Effects of Extraction of Marine Sediments on the Marine Ecosystem (WGEXT) develops the understanding to ensure that marine sand and gravel extraction is sustainably managed and in order to adopt mitigative measures. The group's objective is to provide a summary of data on marine sediment extraction, marine resource and habitat mapping, changes to the legal regime, and research projects relevant to the assessment of environmental effects. Research into the impacts and effects of marine sediment extraction take place across member countries, and a mix of nationally, regionally, and internationally focussed programmes exist. Other tasks include those related to databases and harmonization of data, the Marine Strategy Framework Directive (MSFD), deep-sea mining, cultural and geomorphologic values, thresholds for environmental impact assessments (EIAs), mitigation, and cumulative assessment guidance.
Hydrographic Institute	The Hydrographic Institute, an organ of the Portuguese Navy, was created by Decree-Law no. 43177, dated September 22, 1960. The Hydrographic Institute operates in direct dependence on the Admiral's Chief of Staff, being the relative competence the definition of the strategic guidelines, as well as the monitoring of its execution, carried out by the Minister of National Defence in conjunction with the Minister of Science, Technology and Higher Education and the Minister of the Sea. The Hydrographic Institute main mission is to ensure activities related to the marine sciences and techniques, with a view to their application in the military area, and to contribute to the country's development in the areas of science and defence of the marine environment.

4.1. Oral communications

During the workshop was presented some communications. For the first session was presented the following presentations:

Table 6 – Oral communications during the first session.

Communication	Brief description
MarSP project objectives	It was presented the objectives of the MarSP project and their importance in the Regional and Macaronesia context. It was explained in the context of this project; is being developed a seabed exploration and prospection in the actual and old areas of aggregate's extraction. This will possibility analyse the deposition and renovation of the sediments in the last 10 years.
The maritime spatial planning made by PSOEM	This communication has the finality to present the evolution of the delimitation of the areas of the aggregate's extraction: • The initial areas before the situation plan; • Resolution of the conflicts between aggregation extraction and other uses • Delimitation of the areas and his dimension with the Situation Plan. It was referred the importance of their continuous participation in the process of maritime spatial planning.
The sand extraction in Region	The aggregates extraction is an important activity for the Region once it´s not possible to extract sand in the land. To this communication it has been presented the following themes: • Evolution of this activity in the last 15 years (the discharged volume per year and extraction taxes); • Project of dispatch for identification and graphical representation of the areas allowed for the extraction of aggregates in the sea bed of the Region.

For the second session was presented the following presentations:

Table 7 – Oral communications during the second session.

Communication	Brief description
MarSP project - objectives and preliminary results	It was presented the objectives of the MarSP project and their importance in the Regional and Macaronesia context. It was conveyed that it is important for the Region to monitor the development of this activity and the impacts it can have on the ecosystem. In this way, in the context of this project; a seabed exploration and prospection are being developed in the actual and old areas of the aggregate's extraction. This will possibility analyse the deposition and renovation of the sediments in the last 10 years. It was also explained the Situation Plan enable to define the best areas for this activity through the conversation with the responsible stakeholders.

The sand extraction in Region	The aggregates extraction is an important activity for the Region once it´s not possible to extract sand in the land. With this presentation was made an evolution of this activity in the last 15 years (the discharged volume per year and extraction taxes). It was present the following themes: • The areas of aggregates extraction areas before and after the Situation Plan, • Conflicts between aggregates extraction and other activities; • Capacity of extraction of each company; • Discharged volume per year; • Extraction taxes per year; • Characteristics of each boat, discharge places, • Vessels positioning verification systems; • Support studies to extractive activity; • Legislation; • Environmental impact studies; • Studies for the near future.

The second part of this workshop permit to share and discuss about the process of aggregates extraction that occurred in another parts of Europe (e.g. United Kingdom, Holland, Germany) and the proceed applicated to minimize the impacts in the sea bed, especially with the benthic species. The ICES- WGEXT explains that in the North of Europe, the process of aggregates extraction is more intensive, and the extraction rate is well above the Regional value presented in the oral communications.

They explain, in some countries in the North Europe, where ICES – WGEXT collaborated, was adopted a methodology developed by Cefas[1] where grab samples are taken in the area and the relation between the infauna, the particle size distribution and physical characteristics of the stations are measured with cluster analysis. A series of cluster will define the stations, so that infauna community's association with local physical environment are separated. Once dredging start mostly only monitor particle size distribution with the dredging footprint. Some reference stations are also analysed for infauna to detect natural changes. The aggregate sites are also monitored using multibeam and sidescan sonar of seafloor morphology and structure. In some sites they also conduct camera works to understand the epibenthic ecology.

In the end, they talk about some articles, publications and plans regarding the monitoring of benthic impacts in the North Europe and they made available to sharing information and ideas about this thematic in the future.

[1] https://www.cefas.co.uk/cefas-data-hub/dois/rsmp-baseline-dataset/

4.2. Debate with the stakeholders

Involving key stakeholders in the development of marine spatial planning is essential for several reasons. The most important is because maritime spatial planning aims to achieve multiple objectives (social, economic and ecological) and should therefore reflect as many expectations, opportunities or conflicts occurring.

The developing of the Situation Plan was very participative and integrate a variety of stakeholders of different areas, including the aggregation extraction activity. Although the Situation Plan is closed, the work related to maritime spatial planning must not stop, integrating stakeholders in all work that involves developing some activity in the sea, as well, to contribute to the future revision of the Situation Plan.

In this way, in this phase, the Regional Government will develop several meetings with the various stakeholders of each sector. The first sectorial meeting will be with the aggregates extraction sector.

After the oral communications, was discussed with the stakeholders some important issues with them:

- The aggregates extraction areas;
- Capacity of extraction;
- Discussion of legislation to be approved:
    - Dispatch that proceeds to the identification and graphic representation of the permitted aggregation extraction zones in the sea bed of the Autonomous Region of Madeira.
    - Legal framework that proceed to the rule's definition of gestion of cargo and discharge operations of aggregation extraction in the Autonomous Region of Madeira.

4.3. Fieldwork

The second part of this workshop is focused on the observation of the aggregate's extraction activity. This have the finality to let known how it is developed the aggregation extraction activity in Region.

This activity is made through the subduction of sands with a boat until the 27/28 meters of profundity. In order to maintain the sustainability of the cliffs, the vessel must maintain a distance from the coast of 250 meters and be above the bathymetric of 15 meters of depth.

The experts watched the boat during the extraction activity in one of the areas delimited by the Situation Plan.

To the second part of this workshop attend the ICES – WGEXT, the Hydrographic Institute and the technicians responsible for the environment, the aggregates extraction and maritime spatial planning.

Figure 2 - Observation of the aggregate's extraction activity.

Figure 3 - Observation of the aggregate´s extraction activity.

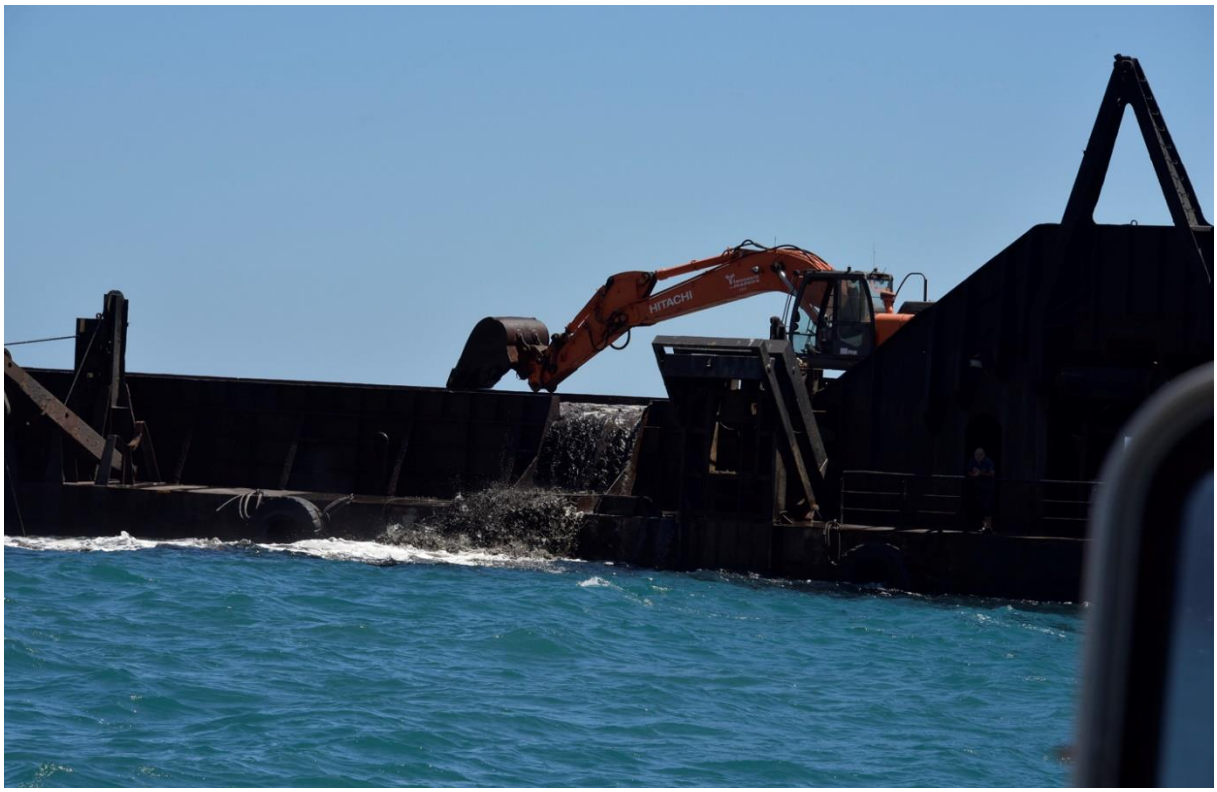

Figure 4 – Observation of the aggregate´s extraction activity.

This fieldwork contributes actively for the sharing information about the thematic of aggregates extraction.

It was explained how MarSP will contribute to the monitoring of benthic impacts. This project will allow the identification and classification of biocenotic conditioners (habitats and species), with reference to guaranteeing the Good Environmental Status of the selected marine areas, considering the current types of marine uses and activities and, if possible, against potential future uses and activities contemplated in the Situation Plan, and representation of its current spatial distribution.

A short-medium-long-term monitoring program will also be designed to assess the evolution of the environmental status of the biocenoses, habitats and key species of each of the selected areas, as well as their respective pressures and threats. The collection and processing of data should be geared towards meeting, in the medium term, the most recent criteria defined in the framework of the MSF [Commission Decision 2017/848 of 17 May 2017].

Figure 5 – Observation of the aggregate´s extraction activity.

One of the main goals of the Situation Plan, was to identify the conflicts between uses and activities. One of the conflicts identified was between the aggregate´s extraction and the aquaculture. It was found that the aggregates extraction could be affected aquaculture by the suspended particles when the vessel was extracting, which would compromise aquaculture production. Once the area of aggregates extraction was affected the aquaculture, it was closed.

The ICES – WGEXT team have the opportunity to visit the old localization of aggregates extraction and the area of aquaculture and has explain to them the way was resolved the conflict through Situation Plan.

Figure 6 – Observation of the aquaculture activity.

Figure 7 – ICES – WGEXT team, Hydrographic Institute and DROTA.

5. Final considerations

The ARM is an insular ultraperipheral territory, with a little diversified economy, however, finds in marine development, an opportunity to establish itself as a maritime region of excellence in the national and European context.

The maritime spatial planning emerges as a fundamental element to dynamize the economic activity related to the sea, through the delimitation of uses and activities in the maritime space. In a first phase, through the Situation Plan, it was possible to identify the uses and activities in the maritime space, in particular the existing ones. Some potential uses or activities were also identified. However, the lack of existing knowledge did not allow us to identify new uses and activities or reinforce those that have already been identified.

This workshop was the first of many to be realized in Region regarding the continuous development of the process of maritime spatial planning. This will possibility the exchange of ideas, find the some concerns the stakeholders have about the sector, find some solutions and contribute for the compatibilizations with other uses.

This workshop was a positive impact in the Regional stakeholders once they feel integrated in the process of decision and in another way, contributed to find a solution to minimize the impacts in the ecosystem, through the development of some studies and implement a monitoring of the sea bed.