

BLUE GROWTH IN IZMIR PENINSULA

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MASTER OF SCIENCE

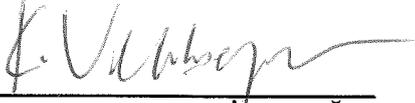
in City Planning

**by
Ceren COŞKUNİŞİK**

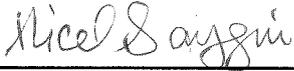
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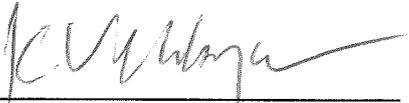


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ABSTRACT

BLUE GROWTH IN IZMIR PENINSULA

The trend towards exploiting natural resources caused by urbanization and increasing population has recently started to attract significant attention. In particular, it is the 'Blue Growth' concept, a subject not previously considered in the field of planning, for which the European Union has started to develop holistic and sustainable policies. In traditional planning studies, the terrestrial and coastal areas are considered as a whole and the marine areas are excluded from the planning. The seas, however, cover a large part of the city and its habitats. In marine areas such as the terrestrial areas; The regions that need to be protected, the species that need to be protected, the regions that are formed according to the diversity of the areas of use, and the regions that need to be used by the sectoral diversity.

In this study, people from different institutions and organizations involved with marine areas were interviewed by using qualitative data collection method. The study aims to raise awareness about marine areas, to give information about the European approach in dealing with marine areas and to show that the seas should be considered together with land and coastal planning in Turkey. Therefore, in this study, we investigated how the sea areas are used, which laws and regulations are applied to the seas, which sectors and which stakeholders are involved with the sea. Then, maritime areas were examined on the Izmir peninsula in the framework of marine tourism and aquaculture and fishing. As a result of this study, we hope to increase awareness about the marine areas to be included in the field of planning and we will suggest our ideas about the holistic planning approach. This study will provide guidance on the marine environment and legal regulations for future studies.

ÖZET

İZMİR YARIMADASI İÇİN MAVİ BÜYÜME

Kentleşme ve artan nüfusun neden olduğu doğal kaynaklara yönelik eğilim son zamanlarda önemli ilgi görmeye başlamıştır. Özellikle, literatür taramasından elde edilen Avrupa Birliği'nin bütünsel ve sürdürülebilir politikalar geliştirmeye başlamış olduğu, daha önce planlama alanında dikkate alınmayan bir konu olan 'Blue Growth' kavramı ile deniz alanlarıdır. Planlama çalışmalarında kara ile kıyı birlikte düşünülmeyle başlarken denizel alanlar planlamanın dışında kalmaktadır. Oysa denizler de şehrin ve yaşam alanlarının büyük bir kısmını kapsamaktadır. Deniz alanlarında da karada olduğu gibi korunması gereken bölgeler, korunması gereken canlı türleri, kullanım alanlarının çeşitliliğine göre oluşturulan bölgeler, sektörel çeşitliliğin getirdiği kullanım ihtiyacı olan bölgeler bulunmaktadır.

Çalışmada kalitatif veri toplama yöntemi kullanılarak denizel alanlarla bağlantılı olan farklı kurum ve kuruluşlardan kişilerle görüşülmüştür. Çalışmanın amacı deniz alanları üzerinde farkındalık yaratmak, Avrupa'nın denizel alanlarla ilgili yaklaşımlarını Türkiye'ye entegre etmek, denizlerin de planlamada kara ve kıyı ile birlikte düşünülmesi gerektiğini göstermektir. Bu nedenle yapılan çalışmada, deniz alanlarının nasıl kullanıldığı, hangi yasa ve yönetmeliklerde denizlere müdahalelerin oluşturulduğu, denizin hangi sektörler, hangi paydaşlar için nasıl kullanıldığı araştırılmıştır. Daha sonra deniz turizmi ve su ürünleri yetiştiriciliği ve balıkçılık çerçevesinde denizel alanlar İzmir yarımadası ölçeğinde incelenmiştir. Çalışmanın sonucunda planlama alanında dahil edilmesi gereken deniz alanları hakkında farkındalık oluşturulacak ve bütüncül planlama yaklaşımı konusunda fikir sağlayacak ipuçları elde edilmiştir. Bu çalışma deniz ortamı ve yasal düzenlemeleri hakkında bundan sonraki çalışmalar için yol gösterici olması amaçlanacaktır.

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LIST OF ABBREVIATIONS

EEZ	Exclusive Economic Zones
FAO	Food and Agricultural Organization
GES	Good Environmental Status
HELCOM	Baltic Marine Environment Protection Commission - Helsinki Commission
ICZM	Integrated Coastal Zone Management
IMCAM	Integrated Coastal and Marine Area Management
IOC	International Oceanographic Commission
KBA	Key Biodiversity Area
MedPAN	Network of Marine Protected Areas in the Mediterranean
MPAs	Marine Protected Areas
MSFD	Marine Strategy Framework Directive
MSP	Maritime Spatial Planning Directive
NOC	National Ocean Council NOP National Ocean Policy
NMPF	National Marine Planning Framework
OECD	The Organisation for Economic Co-operation and Development
OSPAR	Oslo/Paris convention (for the Protection of the Marine Environment of the North-East Atlantic)
SD	Sustainable Development
SDI	Spatial Data Infrastructures
SNA	Special Nature Area
UNCLOS	UN Convention on the Law of the Sea
UNESCO	United Nations Educational, Scientific and Cultural Organization
WFD	Water Framework Directive

CHAPTER 1

INTRODUCTION

Marine planning has come to the fore only during the last 10 years. As a result of the climate change, natural resources have begun to be cared for and recycled due to scarce resources that cannot meet the demands of an increasing population. One of the areas of special interest is the sea. It is important both to increase its usability and to offer a sustainable environment.

In recent years, due to rapid urbanization, industrialization, tourism, secondary housing development, etc., there is uneven development and unplanned development, and coastal and marine areas are seriously affected by these problems. Protecting coastal and marine resources is an issue of global priority. It is necessary to raise awareness in these areas that need to be protected.

The planning area is an important point that is mentioned in every part of the city and even in the regions that extend beyond the urban areas. Despite the fact that a large part of our country is surrounded by seas, studies in the field of planning are insufficient. Especially in terms of the geographical position of Izmir city, the sea is so important that it cannot be overlooked.

Yücel-Gier (2014) published an article title 'Multi-Stakeholder and Multi-Use Development in Izmir Bay. The last few years have witnessed the adverse effects of housing, tourism and population growth. This situation has created too much stress on the marine environment and threatens the sustainability of many coastal resources (MERMED, 2014). The fact that Izmir is considered to be one of the biggest cities on the Aegean Sea is creating awareness through qualitative studies in the field of planning and development.

Tekeli (2018) also mentioned this issue in the article 'Characteristics and Sustainability Conditions Resulting from the Occurrence of Coastal Settlements at Land and Sea Interval'. He says that population growth tends to concentrate on the coast. For

this reason, it is suggested that the features of settlements on the coast should be emphasized. He emphasizes that protection should be taken more seriously when establishing the use balance.

The first of both qualitative and quantitative approaches in the last decade are observed in the 2011 'Integrated Coastal Zone Management and Planning Project' of the Ministry of Environment and Urbanization.

1.1. Problem Definition

In order to make the living conditions sustainable, more attention should be paid to issues such as renewable resources and strategies that do not interfere with nature. 70% of our world is covered by water. Despite such a large size, there are very few studies on the position, yield, or potential of the sea. The sea should be included in the urban planning study and holistic strategies should be developed.

The Izmir peninsula, which includes the districts of Çeşme, Karaburun and Urla, located an important position, which may yield a significant amount of information about the sea areas. There was no planning for the sea before sustainability in cities emerged as an area of interest. The seas need management planning. In this context, the study seeks answers to the following questions;

- How can marine areas be included in planning studies?
- How can a legal framework be established for the seas?
- How to create a land use map covering marine areas?
- How can solutions be sought to connect to the sea?
- What are the marine uses for Izmir peninsula?

1.2. Aim of Study

The aim of this study is to examine how the system of marine and coastal areas should be addressed in the planning literature (Europe-Turkey), to examine the legal and administrative implications and to increase the awareness of marine areas. It also aims to show what needs to be taken into account to create marine spatial planning, and how to proceed.

1.3. Methodology

The methodology of the study is described in three sections. Second chapter relates to literature review, examining concepts of blue growth and marine spatial planning and the marine ecosystem. In the third part, empirical and statistical data analysis and current data are presented. In the fourth chapter, semi-structured in-depth interviews are made, with information obtained from various disciplines, stakeholders etc.

This study was carried out by a qualitative data collection method. The aim of the qualitative research is not to reach the generalizations by placing the results on a numerical basis, but to obtain in-depth information on the subject, which is the aim of the research (Kurtuluş, 2010, p.35). An interview with a single participant (Kurtuluş, 2010, p.45) was conducted directly and face to face.

In addition, statistical data, internet resources, laws and regulations, Mediterranean Sustainable Living International Symposium presentations in the Coastal Cities (December 6-7 2018), Chamber of Marine Commerce and Çeşme Blue Growth Workshop presentations (March 13 2018) were utilized.

1.4. Structure of the Study

This study has six chapters. In the first part of the study, the definition of problem, the purpose of the research, the methods of the research are explained. In the second part of the study, literature review is given and Blue Growth and Marine Spatial Planning concepts are mentioned. How and where Blue Growth occurs and its components are mentioned. The definition of Marine Spatial Planning is also included in this section and the relationship between the two is examined.

In the third chapter, the organization and legal framework of the marine environment are explained. The policies and strategies on the management of marine areas and on the seas are mentioned. This concept emerged in the European Commission, both in Europe and Turkey within the framework of legal administrative aspects of marine areas, how and under which topics are mentioned.

The fourth chapter explains how to integrate blue growth into the Izmir peninsula. The current situation of Izmir is indicated by the current studies. In addition, it has been stated that the orientation of core of the blue growth in tourism and culture fisheries is

shown. These observations were made in the districts of Çeşme, Karaburun and Urla, to the west of Izmir.

The fifth chapter discusses how Turkey will be presented in the planning system. Marine land use map is utilized and legends are created. Spatial planning of marine areas with a holistic approach gives information about how to integrate Turkey's planning policies. Also conclusion part of the study, answers to the questions asked in the first chapter are sought. A summary of the whole study is given and a reference to the next studies and the importance of taking part in the planning works of the marine areas.

CHAPTER 2

BLUE GROWTH AND MARINE SPATIAL PLANNING

As a result of the global economic crisis in 2008, new solutions began to be sought. Within the framework of these searches, the aim was to ensure sustainability and studies on developmental strategies for conservation were started. One of the most important steps in this work is the blue economy and blue growth.

The concept of sustainable development emerged in the 1960s with the shape of the world. In 1992, the United Nations conference stands out with its economic dimension. The conference in 2002 highlighted its importance with its social dimension. (Najam and Cleveland, 2003).

The aim of this summit was to bring together private, public and non-governmental organizations in the areas of ocean health, climate change, fisheries and conservation to achieve sustainable growth. Social awareness was created as a result of the summit (Global Oceans Action Summit, 2014).

The concept of blue economy was put forward to underline the importance of oceans and seas for sustainable development and the importance of sustainability of resources in oceans and seas has helped to create a lot of national strategies and policies in recent years. Economic management emphasizes that ensuring the sustainability of the seas will have positive effects on economic growth and supports the importance of sustainability of the resources obtained from the seas with the projects, strategies and policies implemented (The Economist Intelligence Unit, 2015, p.5).

2.1. Blue Growth

The Blue Growth strategy (Ecorys et al., 2012) of the European Commission for the sustainable development of the marine and maritime sectors is an important step in the sea area. Marine Spatial Planning is one of the components of this strategy. In this

sense, MSP acts as a tool to support regional development by emphasizing the economic potential of the seas (MSP Platform, 2019).

Blue Growth is the long term strategy to support sustainable growth in the marine and maritime sectors as a whole. Seas and oceans are drivers for the European economy and have great potential for innovation and growth (Europe Commission, 2019).

Key sectoral Blue Growth-enabling maritime industries include shipping (particularly yachting and the cruise industry, sustainable tourism and green maritime transport), renewable energy, large-scale offshore aquaculture, seabed mining and blue biotechnology. In addition to marine activities are oil and gas, ports, renewable energy, aquaculture, fisheries, aggregate extraction, leisure & recreation, telecom & power cables, adaptive management approach (UKHL, 2011, p.1-4). These have been highlighted as rapidly developing sectors for which there is currently limited regulation (Boyes and Elliott, 2014, p. 39-47) and relatively little is known about the offshore ecosystems where they occur (Boyes, et al., 2016, p. 18-32). Blue growth strategy has three components;

1. Developing sectors that have a high potential for sustainable jobs and growth, such as:

- aquaculture (Fisheries)
- coastal and maritime tourism
- marine biotechnology
- ocean energy
- seabed mining

As summarized in the figure, there are five sectors which are the focal point of this concept: job opportunity, economic value increase, sustainability, transportation, fishing and offshore oil are mentioned as blue economy vehicles besides blue growth.

2. Essential components to provide knowledge, legal certainty and security in the blue economy:

- marine knowledge to improve access to information about the sea;
- maritime spatial planning to ensure an efficient and sustainable management of activities at sea;
- integrated maritime surveillance to give authorities a better picture of what is happening at sea.

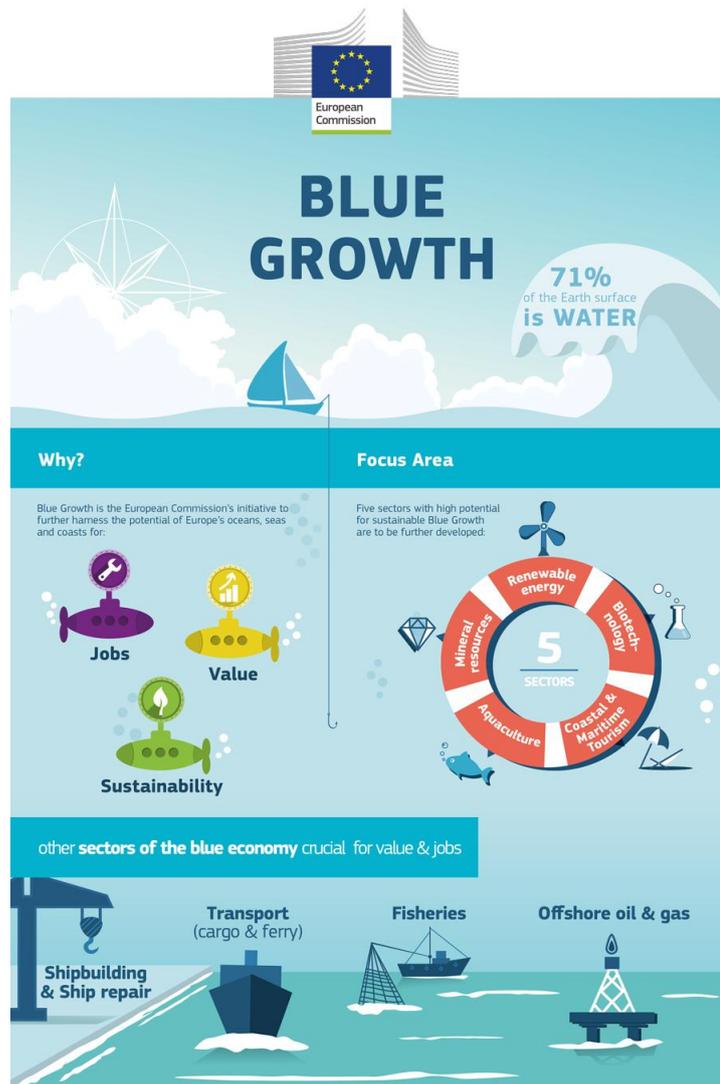


Figure 2.1 Blue Growth components (Source: Europe Commission, 2019)

3. Sea basin strategies to ensure tailor-made measures and to foster cooperation between countries (Europe Commission, 2019):

- Adriatic and Ionian Seas
- Arctic Ocean
- Atlantic Ocean
- Baltic Sea
- Black Sea
- Mediterranean Sea
- North Sea

Blue growth is one of the principles required for sustainable development. It is a fundamental approach in improving the negative factors affecting the marine ecosystem and protecting the existing riches.

In addition, the tourism sector, which has more than 3.2 million employees in the EU, represents a total of 183 billion euros in gross value added and represents one third of the maritime economy. In addition, aquaculture in Europe accounts for about 20% of fish production and directly employs approximately 85,000 people.

2.2. Marine Spatial Planning

Marine Spatial Planning does not have a single definition; in fact, it can be explained in many different ways. What these explanations have in common is that it is a method to manage sea activities and make sustainable use of the sea while protecting the ecological balance. This situation is explained more clearly by using the literature review.

Marine spatial planning is a public process of analysing and allocating the spatial and temporal distribution of human activities in marine areas to achieve ecological, economic, and social objectives that are usually specified through a political process (Ehler and Douvere, 2011).

MSP seeks to reduce conflicts and environmental impacts, and promote sustainable use of marine ecosystems. MSP approaches have successfully determined how to achieve target levels of ocean area for particular uses while minimizing costs and impacts, but they do not provide a framework that derives analytical solutions in order to co-ordinate siting of multiple uses while balancing the effects of planning on each sector in the system (Lester, et al., 2018).

The extending of spatial planning (as used on land, also referred to as physical planning) to the marine domain – this is, in short, the meaning of what has been translated as maritime spatial planning – represents a key instrument for Blue Growth and can contribute to the aim of giving a boost to economic growth on the basis of a new maritime paradigm founded in innovation, competitiveness and knowledge (MSP Platform, 2019).

MSP is a place-based, multi-sectoral decision-making approach that is being widely promoted for reducing the conflicts and impacts commonly encountered in conventional sector-by-sector planning (Alexander, 2012 and Foley, 2010).

“... in the marine environment, the terminology of cadastre is still unclear because there are problems like discontinuity between land and marine cadastre, standards, technical and legal institutional aspects.” Marine Cadastre Issues; the concept of tenure does not exist at sea or varies in different marine locations (Longhom, 2016):

- It is not possible to use classical means of boundary demarcation offshore.
- The marine environment is three dimensional –classical 2D simplifications will not suffice.
- It is common for multiple, overlapping rights to exist in a single location.
- Rights can vary with time, adding a fourth dimension to the spatial data.
- The baseline to which many maritime boundaries are related is ambulatory.

“A marine cadastre should be considered as part of spatial data infrastructures (SDI), considering its importance for coastal and marine stakeholders. Then, these spatial data should be easily accessed to get the basic dynamic information.” (Williamson et al, 2009, p. 2273–2282).

On the other hand, EU Marine Spatial Planning Themes are; aquaculture areas, fishing areas, installations and infrastructures for the exploration, exploitation and extraction of oil, of gas and other energy resources, of minerals and aggregates, and for the production of energy from renewable sources, nature and species conservation sites and protected areas, maritime transport routes and traffic flows, submarine cable and pipeline routes, raw material extraction areas, military training areas, scientific research, tourism and underwater cultural heritage (Longhom, 2016).

The following figure shows the Pacific Islands Protected Area Portal, the processes of MSP's interventions in the seas: planning, data evaluation, ecosystem characterization and management application. The first part includes defining the objectives and determining the working area; the second part is about collection of data, defining data gaps and identifying the content and values; in ecosystem characterization part, habitat, socioeconomic status and biological analysis should be done and as a result, alternatives of usage areas should be presented.

Marine plans produced by regional planning bodies can provide information about specific issues, resources, and areas of interest to better inform existing management authorities. They can also describe future desired conditions and provide information and guidance that support regional actions moving forward (National Ocean Council, 2013).

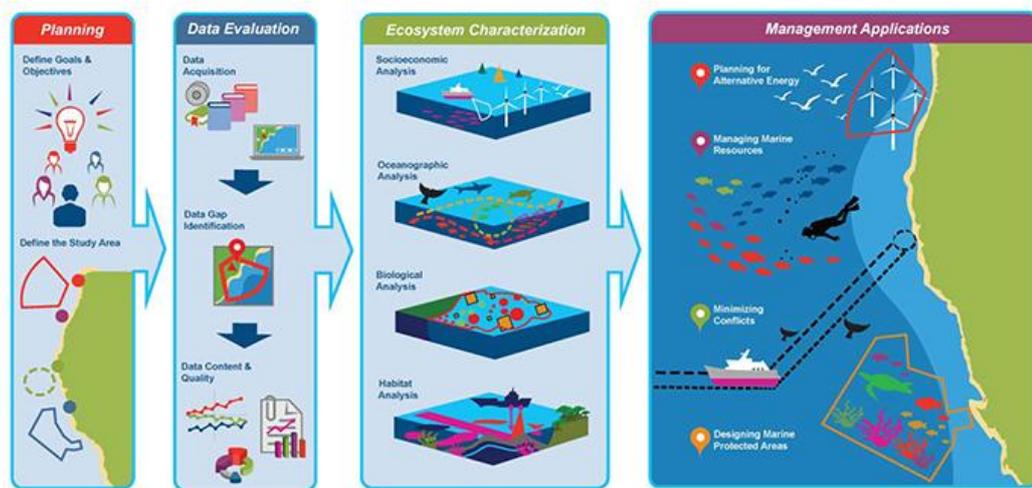


Figure 2.2. Marine Spatial Planning (Source: SPREP PROE, 2019)

Examples of potential focus areas for marine planning include, but are not limited to:

- Developing information that facilitates more effective review and permitting among State, Federal, and tribal authorities for a specific class of activity such as offshore energy infrastructure;
- Characterizing environmental conditions and current and anticipated future uses of marine space to assist in siting offshore renewable energy;
- Developing and implementing a plan to acquire data and information to support more efficient management of activities of particular regional interest, such as remote sensing data to support coastal mapping;
- Developing and implementing a plan to acquire data and information to support sustainability of coastal and marine ecosystems in the region;
- Identifying a specific geographic area and addressing management challenges that would benefit from multi-government resolution;
- Identifying and developing information that better informs agency or government-to-government consultations under the Endangered Species Act, Marine Mammal Protection Act, and the National Environmental Policy Act that apply to offshore development activities important to the region; and
- Developing maps and information that inform effective co-location of multiple existing and new ocean uses, such as commercial fishing, vessel traffic lanes, military training, sand and gravel mining, dredging and dumping, and new energy infrastructure development.

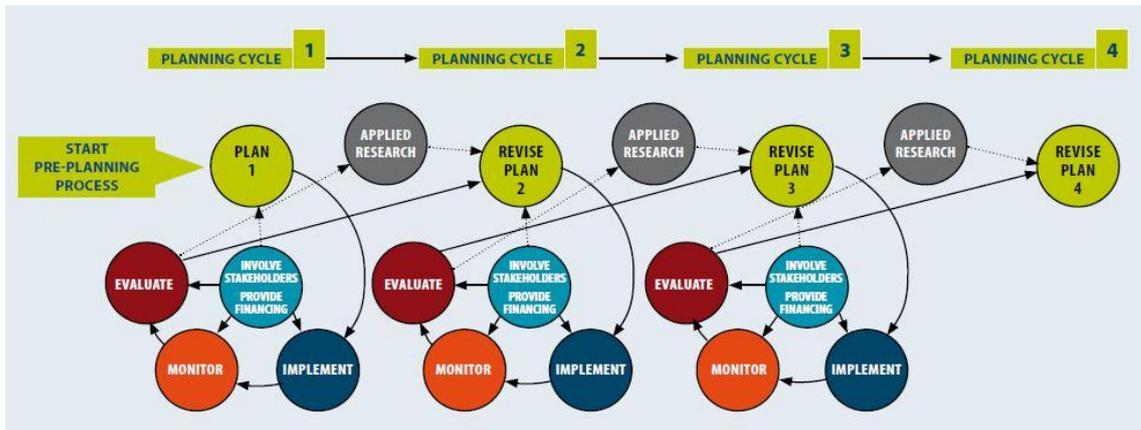


Figure 2.3. The continuing MSP planning cycle (Source: Marine Spatial Planning A Step-by-Step Approach, 2017)

To sum up, Marine Spatial Planning is aimed at protecting and saving the ecological balance in the changing world conditions. One of the main steps of conservation is the water that covers 70% of the world. It is for this reason that the sea areas have gained significance and action has been taken accordingly. With this initiative, the importance of using natural resources in the most efficient way and the need for cooperation between sectors has been emphasized. There is a need for organization to run the MSP regularly. Figure 2.3 describes the stakeholders in the plan and the cycle of implementation, observation and evaluation after the finance has been established, and the period in which revision plans should be made and the need to repeat this cycle as needed in the process. Also, professional groups interested in MSP; spatial data scientist, program manager, aquaculturist, marine spatial scientist.

CHAPTER 3

ORGANIZATIONAL AND LEGISLATIVE FRAMEWORK OF MARINE ENVIRONMENT

In terms of marine and coastal biodiversity, algae, vegetative plankton, sea meadows, invertebrates, fish, sea birds, sea turtles and marine mammals comprise the marine ecosystems of the seas. Sea areas and zones are given figure 3.1. Apart from these areas, light areas and areas that do not receive light, deltas, lagoons, coastal dunes, underwater and water caves and islands, and water flows are among the marine habitats. (Underwater Research Association, 2013)

Littoral Zone (Sun area zone) is a coastal zone where waves and coastline are active. Supralittoral (the area that is wetted by the marine movements outside the water) is divided into two regions: the region and the mediolittoral (the area underwater and the movements of water and occasionally underwater).

Sublittoral zone is the region up to 200 m in depth after the littoral zone and lines the continental shelf. It is subdivided into two regions: a) Infralittoral (up to a depth of 200 m, where seaweeds can reach a depth of -40 -50m - starting from the coastline underwater) and b) Circalittoral (the depth at which seaweeds and photophilic algae grow with very little light).

Benthic Zone and Pelagic Zone; there are two regions within the ecological characteristics of marine environment. Benthic zone, the coastal line starting from the deepest part of the oceans to the bottom of the sea is called the area. The benthic zone is divided into two parts: the Littoral zone and the deep sea zone. The deep sea region is divided according to different depths, respectively;

- Bathyal zone: a steeply sloped seabed from the sublittoral zone to a depth of 4000 m. Because of the inability of the sun to reach these depths, the creatures here have adapted to the darkness.
- Abyssal zone: defines the seabed deeper than 4000 m.

- Hadal zone: defines the seabed deeper than 6000 m.

Pelagic zone: the body of water covering the sea floor. From shallow to deep;

- Epipelagic
- Mesopelagic
- Bathypelagic
- Abyssalpelagic

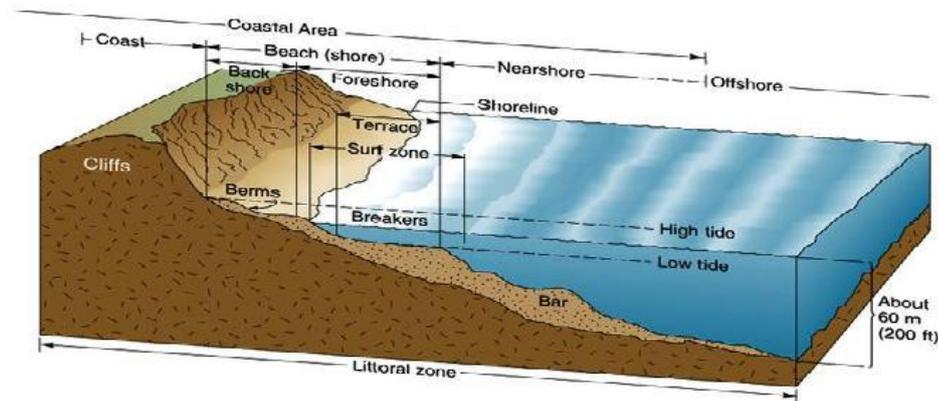


Figure 3.1. Coastal areas and zones (Source: Underwater Research Association, 2013, p.38)

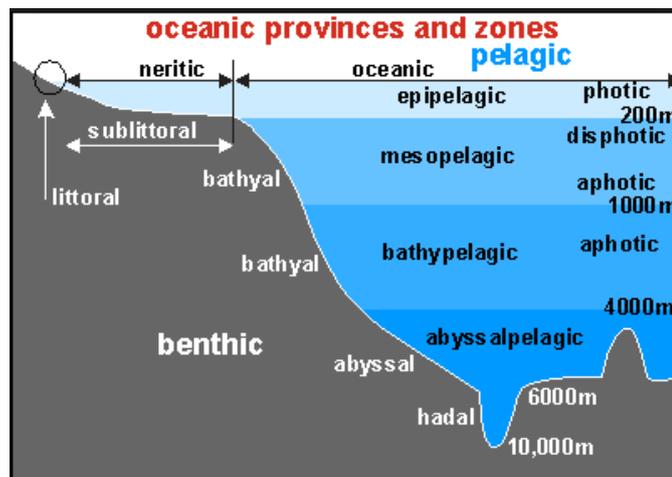


Figure 3.2. Marine areas and zones (Source: Underwater Research Association, 2013, p. 38)

Different European Coastal States have different terminologies to describe activities and resources related to the sea. In formulating the EU Integrated Maritime Policy (IMP-EU), the European Commission felt it necessary to include the terms marine and maritime whilst recognising that they overlap and, in some countries, are synonymous. In Ireland, different stakeholders also use different terminologies to describe activities; e.g. maritime is often associated with the shipping sector only. In this document, we use ‘marine’ to reflect both maritime and marine. (Ireland Government, 2012).

3.1. Management and Policy

Rapid population growth, technological change, and growing consumer demands, have all considerably increased the need for more food, more energy and more trade. Because of limited or diminishing resources on land, an increasing larger share of goods and services needs to come from coastal and marine areas. Resource extraction is expanding progressively into deeper waters and further offshore (Berkes, et al., 2006). Aquaculture, offshore energy, maritime transport and tourism are all facing increasingly flourishing and prosperous times in coming years. Future outlooks for offshore activities confirm that this trend will continue, and even more likely accelerate, in the next decades (Klinger and Naylor, 2012, p. 247–276).

The multiple objectives related to achieving economic and environmental sustainability, and the need to minimize and reduce conflicts of both types (user-user and user-environment conflicts) can only be dealt with through an integrated approach to management. This is nothing new. In the late 1930s, an integrated, multiple objective approach was first introduced in water resource management in the United States. Highly influenced by system analysis concepts (management of complex systems, e.g., the lunar landing program) of the late 1950s and the environmental movements of the 1960s and early 1970s, it was further deepened in the context of Integrated Coastal Zone Management (ICZM), or alternatively Integrated Coastal and Marine Area Management (IMCAM) during the 1980s-1990s. Since the late 1970s, the scientific community has increasingly drawn the attention to the problems in the oceans — from biodiversity losses and transformed food webs to marine pollution and warming waters — and has sought for ways to preserve certain areas for their ecological value. Especially during the last decade, many of these evolving trends and disciplines have merged together, evoking a new paradigm shift toward an ecosystem-based approach to sea use management, built on the recognition that “the nature of nature itself is integrated (Misund, 2006).

Ecosystem-based management is place- or area-based in focusing on a specific ecosystem and the range of activities affecting it (McLeod, et al., 2005 and Crowder, et al., 2008). This emphasis on managing places is a key characteristic of ecosystem-based management and is a marked departure from existing approaches that usually focus on a single species, sector, activity or concern (Crowder, et al., 2006).

The following conceptual model shows how the Marine Strategy Framework Directive interlinks pressures and the 11 qualitative descriptors (Figure 3.4) (Borja, et al., 2010).

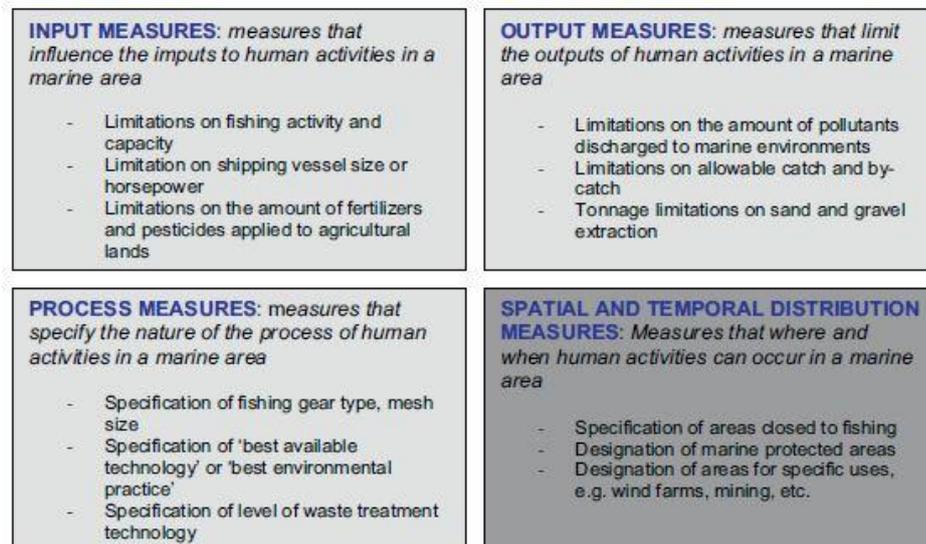


Figure 3.3. Types of measures for ecosystem-based, sea use management (Source: Douvère and Ehler, 2007)

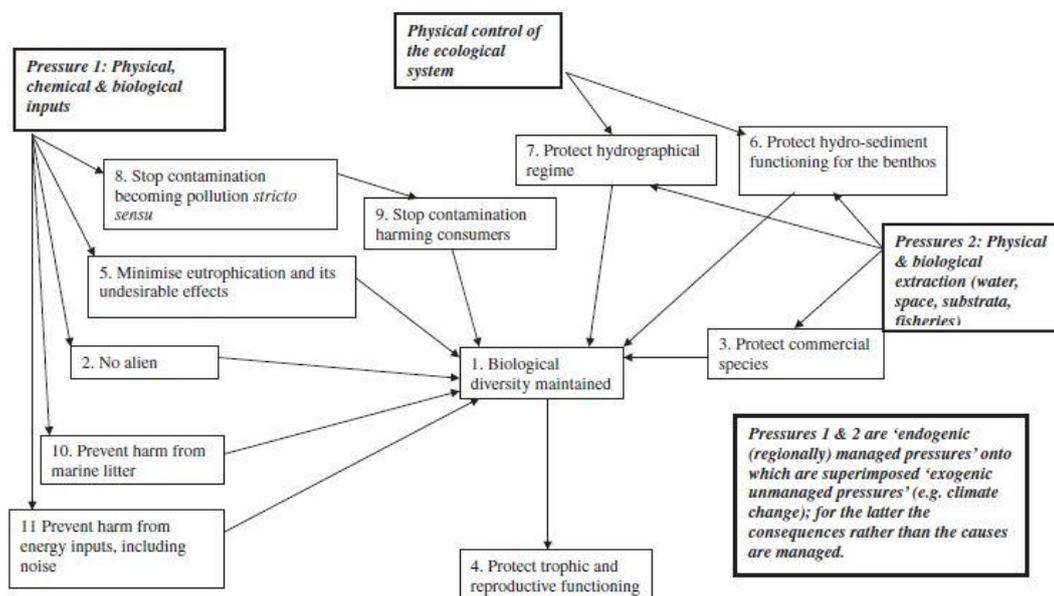


Figure 3.4. Marine strategy framework directive interlinks (Source: Borja, et al., 2010)

- Biological diversity is maintained. The quality and occurrence of habitats and the distribution and abundance of species are in line with prevailing physiographic, geographic and climatic conditions

- Non-indigenous species introduced by human activities are at levels that do not adversely alter the ecosystems
- Populations of all commercially exploited fish and shellfish are within safe biological limits, exhibiting a population age and size distribution that is indicative of a healthy stock
- All elements of the marine food webs, to the extent that they are known, occur at normal abundance and diversity and levels capable of ensuring the long-term abundance of the species and the retention of their full reproductive capacity
- Human-induced eutrophication is minimised, especially adverse effects thereof, such as losses in biodiversity, ecosystem degradation, harmful algae blooms and oxygen deficiency in bottom waters
- Sea-floor integrity is at a level that ensures that the structure and functions of the ecosystems are safeguarded and benthic ecosystems, in particular, are not adversely affected
- Permanent alteration of hydrographical conditions does not adversely affect marine ecosystems
- Concentrations of contaminants are at levels not giving rise to pollution effects
- Contaminants in fish and other seafood for human consumption do not exceed levels established by Community legislation or other relevant standards
- Properties and quantities of marine litter do not cause harm to the coastal and marine environment
- Introduction of energy, including underwater noise, is at levels that do not adversely affect the marine environment

Marine sector includes port authorities, local authorities, sports and recreation organisations, regional and national inshore fisheries, sea fisheries organisations, environmental groups, renewable energy sector, tourism sector etc. As far as the benefits of Marine Planning are concerned, this will provide competitive advantage for our marine sectors, help realise the full benefit of our ocean wealth and assist with managing our resources effectively and sustainably. Marine planning will contribute to the effective management of marine activities and more sustainable use of our marine resources based on the concept of sustainable development and sustainable growth. It also aims (Ireland Department of Housing, 2012):

- for a thriving maritime economy,

- for healthy ecosystems
- to strengthen our engagement with the sea

Ireland's National Marine Planning Framework (NMPF) will be the key consideration for decision makers on all marine concepts. All applications for activity or development in Ireland's marine area will be considered in terms of its consistency with the objectives of the plan. These events are aimed at raising awareness around:

- The MSP concept,
- The Government's plans to develop a marine plan for Ireland,
- Details on how people could engage with the plan-making process and
- Providing a timeframe for the various phases of that process.

MSP's most important impact points; climate change (The marine spatial plan will consider climate change from two perspectives; how actions under the plan may help mitigate climate change and how actions under the plan need to be adapted to take account of the effects of climate change) and cultural heritage (Other cultural sites and culturally significant environments including submerged landscapes, harbours, jetties, landing places, fish traps, kelp grids, bridge sites, crannogs and tidal mills attest to Ireland's rich underwater cultural heritage in the context of the wider landscape within which they are to be found) (Ireland Department of Housing, 2012).

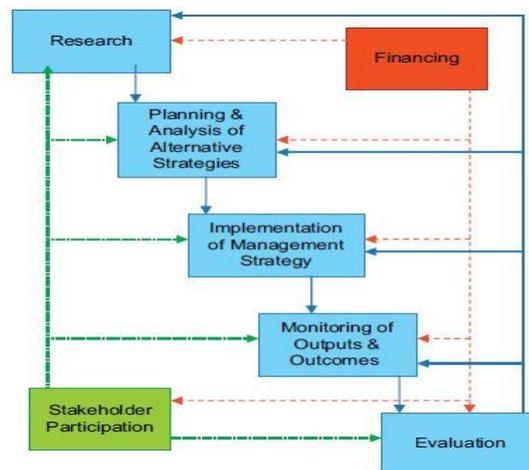


Figure 3.5. Essential elements of a marine spatial management process (Source: Ehler and Douvère, 2007).

Two European regional commissions for the protection of the marine environment, OSPAR and HELCOM has jointly defined the ecosystem approach to sea use management as (OSPAR-HELCOM, 2003 and ICES, 2003) the comprehensive

integrated management of human activities based on the best available scientific knowledge about the ecosystem and its dynamics in order to identify and take action on influences which are critical to the health of marine ecosystems, thereby achieving sustainable use of goods and services and maintenance of ecosystem integrity (Klinger and Naylor, 2012).

Irish Sea Marine Aggregate Initiative (IMAGIN) Policy Report includes the summary of regulations, management and policy with respect to marine aggregate extraction in European countries (table 3.1).

Table 3.1. Summary of management and policies in European countries (Source: Radzevicius et al., 2007)

	UK	HOL	BEL	FRA	GER	POL	ESP	GRE	IRL
National Policy	Yes	Yes	Yes	No	No	No	Yes	No	No
Specific Regulation for Marine Aggregate Extraction	Yes	Yes	Yes	No	No		Yes	No	No
National Guidelines	Yes	Yes	No	No	No	No	No	No	No
Administration (Central, Local or Both)	Central			Both	Both		Both	Both	Central
Extraction (Commercial, Non-commercial or Both)	Both	Both	Both						Non-commercial
EIA Directive Implemented	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Public Access to Information Assured	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Environmental Monitoring Required	Yes		Yes		Yes		No	No	
Content and Type of Environmental Monitoring Specified	Yes	No	No	No	No	No	No	No	
Physical Monitoring Required	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	

In order to ensure sustainability, marine protection areas should be established and development should be ensured along with protection. In the examples seen in the world, marine parks are another tool for the related initiatives. The world examples are listed in Table 3.1.

In Medes Islands Natural Marine Park in Spain, the diversity of depths provides dives for all levels. In the shallow areas, we find a dense mantle of well-lit seaweeds and over a hundred brightly coloured species. At depths below 10-15 metres, we find light-deprived seaweeds, great rocks surrounded by coral, starfish, gorgonia, octopus and lobster. Below 20 metres we enter a darkness of coral and miniature forests of

bright colours inhabited by over 600 species of fauna (Medes Islands, 2019). Marine Park's legends include diving spots, sea-going dockings.

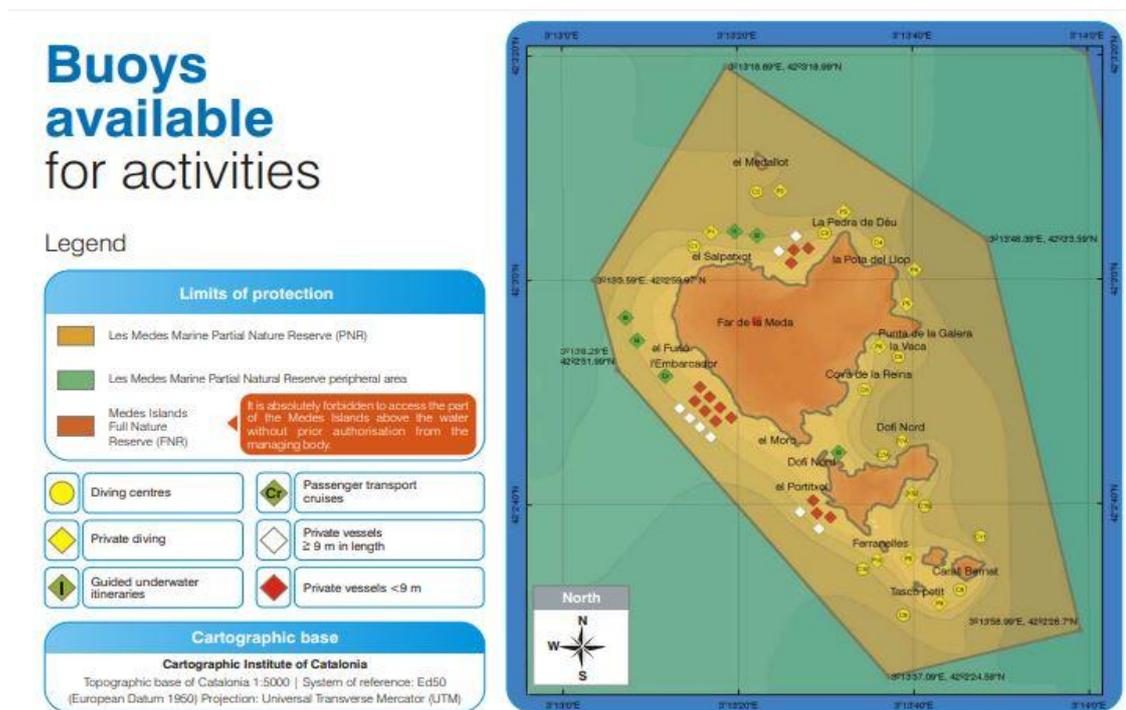


Figure 3.6. Medes Islands Natural Marine Park in Spain (Source: Medes Islands and Baix Ter Natural Park, 2019)

The National Marine Park of Alonissos and Northern Sporades was the first marine park established in Greece and is currently the largest marine protected area in Europe. The National Marine Park of Alonissos and Northern Sporades is member of the MedPAN (Network of Marine Protected Areas in the Mediterranean). Founded in 2003 and funded within the framework of the "Environment and Sustainable Development" operational program, its management body is responsible for the preparation and implementation of the management plan relative to the Marine Park (Municipality of Alonissos, 2019). In areas where approaching is permitted, swimming, observation of the sea bed, amateur photography and filming are allowed. There are specific restrictions on amateur fishing (Alonissos Travel, 2019).

Bonaire National Marine Park; Bonaire has a long history of marine preservation, beginning with turtle protection in 1961, prohibition of spear fishing in 1971 and protection of coral, dead or alive, in 1975 (Tourism Corporation Bonaire, 2019). The park includes 2,700 hectares (6,700 acres) of fringing reefs, seagrasses and mangroves (Dutch Caribbean Nature Alliance, 2019).

3.2. Concerning the Laws of Marine

3.2.1. Legislative Framework in Europe

Marine Strategy Framework Directive: The Marine Strategy Framework Directive (or Marine Directive) is the first encompassing piece of EU legislation specifically aimed at the protection of the marine environment and natural resources, creating a framework for the sustainable use of our marine waters. EU legislation to protect the marine environment has been progressively implemented in many relevant areas: for instance, the regulation of fisheries through the Common Fisheries Policy (CFP) or the control of input of nutrients and chemicals into the water through the Water Framework Directive (WFD). These pieces of legislation, despite being crucial complementary tools to the protection of marine waters, contribute to the protection of the sea only from specific pressures resulting in a fragmented and sectoral approach.

To tackle this issue, the European Union adopted two instruments, the 2002 EU Recommendation on Integrated Coastal Zone Management and the 2008 Marine Strategy Framework Directive, which offer a comprehensive and integrated approach to the protection of all European coasts and marine waters (Water Information System for Europe, 2019).

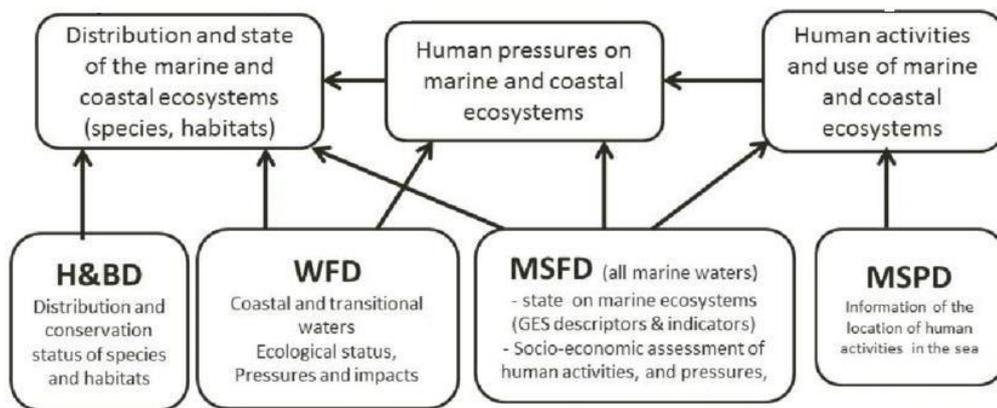


Figure 3.9. Overview of the linkages between the MSFD, WFD, the H&BD and the MSPD illustrating (Source: Boon et al, 2015)

There are differences and overlaps between the MSFD and the WFD (Borja et al., 2010; Altvater et al., 2011; HM Government, 2012a). The MSFD covers all ‘marine waters’ defined as the water, seabed and subsoil from the baseline out to the EEZ limit of 200 nm, but does not include WFD transitional waters (e.g. estuaries, coastal lagoons and sea lochs).¹ In comparison, the WFD covers surface waters throughout a ‘river

basin' from rivers, lakes and groundwaters through transitional and coastal waters to 1 nm out to sea (3 nm in Scotland) and out to 12 nm for chemical status. For estuaries, the boundary between the two directives is the 'bay closing line' which is the seaward limit of 'transitional waters' as defined under the WFD and, in the UK, the EU Urban Wastewater Treatment Directive. This gives a spatial overlap of at least 1 nm between the two directives, and has a 12 nm overlap with the MSFD coastal waters for chemical status (Boyes, et al., 2016).

There are many laws on land in the planning area, but the same does not apply to seas. The EIA and SEA are described in the following terms;

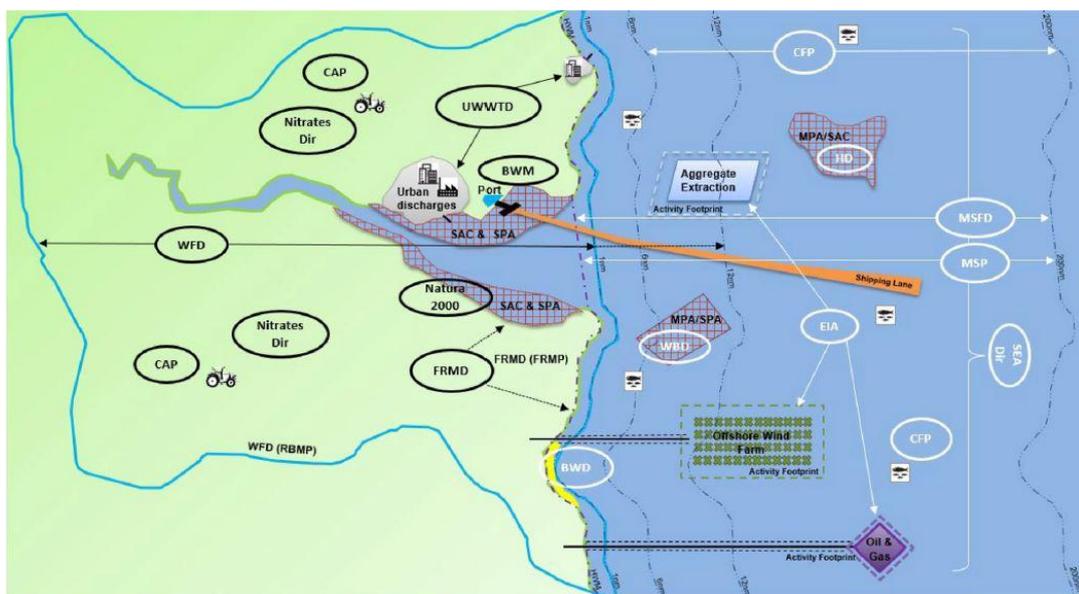


Figure 3.10. Geographical scope and competencies of European legislation upon which measures the MSFD relies. Abbreviations: BWD = Bathing Water Directive; BWM = Ballast Water Management Convention; CAP = Common Agricultural Policy; CFP = Common Fisheries Policy; EIA = Environmental Impact Assessment Directive; FRMD = Flood Risk Management Directive; FRMD (FRMP) = Flood Risk Management Directive (Flood Risk Management Plan); HD = Habitats Directive; MSP = Maritime Spatial Planning Directive; MSFD = Marine Strategy Framework Directive; Natura 2000 = Habitats and Wild Birds directives; Nitrates Dir = Nitrates Directive; SAC = Special Area of Conservation; SEA Dir = Strategic Environmental Assessment Directive; SPA = Special Protection Area; UWWTD = Urban Wastewater Treatment Directive; WBD = Birds Directive; WFD = Water Framework Directive (with extension out to 12 nm for chemical status); WFD (RBMP) = Water Framework Directive (River Basin Management Plan), (Source: Boyes, et al., 2016)

Strategic Environmental Assessment (SEA): Directive 2001/42/EC of the European Parliament and the Council on the Assessment of the effects of certain plans and

programmes on the environment, commonly known as the SEA Directive, was transposed into Irish law by S.I. 435 of 2004 and came into effect on 21st July 2004. Environmental Impact Assessment (EIA): Certain developments on state-owned foreshore are subject to the European Communities (Environmental Impact Assessment) Regulations, 1989 to 1999, requiring the preparation of an Environmental Impact Statement which must be provided to the consultative organisations specified in the Foreshore (Environmental Impact Assessment) Regulations, 1990 (S.I. No. 220). As set out in the European Communities (Environmental Impact Assessment) Regulations, 1999 (S.I. No 93 of 1999) an Environmental Impact Statement must be provided in cases involving (O'Mahony, et al., 2008):

“Extraction of stone, gravel, sand or clay by marine dredging (other than maintenance dredging) where the area involved would be greater than 5 hectares or, in the case of fluvial dredging, (other than maintenance dredging) where the length of river involved would be greater than 500 metres.”

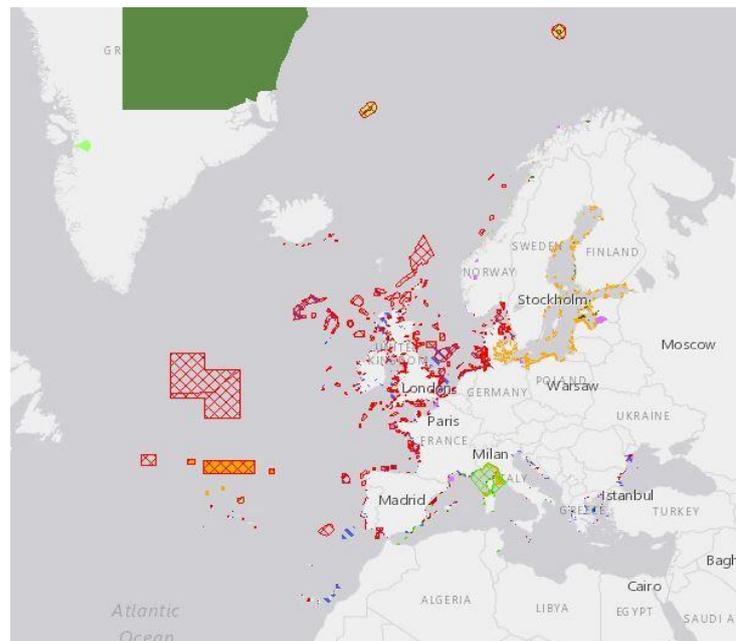


Figure 3.11. Marine Protect Areas of Europe's Seas (Source: European Environment Agency, 2019)

The SEA Directive requires that an environmental assessment must be carried out for all plans and programmes (O'Mahony, et al., 2008):

- which are prepared for certain specified sectors and which set the framework for future development consents of projects listed in Annex I and Annex II of the EIA Directive (including marine aggregate extraction); or

- which, in view of the likely effect on protected sites, have been determined to require an assessment under the Habitats Directive

UN Convention on the Law of the Sea (UNCLOS): Maritime access and use rights are governed by UNCLOS, to which all the Mediterranean (except Turkey, Syria and Israel), Black Sea coastal states and the EU are parties. UNCLOS recognises the sovereignty, sovereign rights, freedoms, rights, jurisdiction and obligations of states within several maritime zones (Figure 3.11), namely (Boero, et al., 2016):

- Internal waters: waters on the landward side of the baseline where the coastal state exercises full territorial sovereignty.
- Territorial sea: the zone adjacent to the territory and the internal waters of the coastal state. The coastal state exercises full sovereignty over this zone. The maximum width of the territorial sea is 12 nautical miles.
- Contiguous zone: waters located beyond the territorial sea. The coastal state is allowed to regulate customs, fiscal, immigration and health issues in this zone. Its width may not exceed 24 nautical miles from the baseline.
- Exclusive economic zone (EEZ): maritime area beyond and adjacent to the territorial sea. Here, the coastal state exercises sovereign rights for the purposes of exploring and exploiting, conserving and managing the natural resources. The breadth of the EEZ may not exceed 200 nautical miles from the baseline.
- Continental shelf: natural prolongation of a coastal state's submarine territory to the outer edge of the continental margin, or to a distance of 200 nautical miles. Over the continental shelf, the coastal state exercises sovereign rights for the purpose of exploring it and exploiting its immobile natural resources. In the event that the coastal state does not exercise its rights on the natural resources of its continental shelf, no one else may explore or exploit it without the express consent of the coastal state.
- High seas: the remaining parts of the sea. The High Seas are free for all states and reserved for peaceful purposes.
- Area: the sea and ocean bed and its subsoil beyond the borders of national jurisdiction. The Area and its resources are the common heritage of mankind.

3.2.2. Legislative Framework in Turkey

International conventions on environmental protection date back to the 1970s. Over time, Turkey became a party to the international agreements. Turkey, environmental, tourism, agriculture-related areas in most of its laws and regulations in the 1980s by announcing the Official Gazette has enabled it to enter into force. Changes in some laws, although updates are observed, continue to remain valid.

Ministry of Environment and Forestry Permit and Inspection nineteen pieces that Turkey is a party on the website of the Presidency of the International Convention for the Protection of Environment convenience. These contracts include contracts relating to sea and sea life; Ramsar Especially as Waterfowl their Habitats of International Importance on Wetlands Convention (1971, Turkey's adoption and publication of 1994), Barcelona Mediterranean Marine Environment and the Coastal Region of Protection Convention (1976, Turkey's adoption and ratification of 2002), Bern European Wildlife and Natural Habitats Protection Convention (1979), Rio Convention on Biological Diversity (1992, Turkey's adoption and ratification of 1996) dir. This addition to the basic contract law for the protection of the Mediterranean monk seal and outlining areas that Turkey is a party to international agreements or our country approval dates are as follows:

- Mediterranean Convention for the Protection of Pollution (Barcelona), (1981)
- Convention on the International Trade of Endangered Species of Wild Animals and Crops - CITES (Washington), (1996)
- Protocol on Specially Protected Areas and Biological Diversity in the Mediterranean (2002)

Therefore, Turkey is committed to protecting these rare marine habitats and coastal areas, and with many international conventions and protocols to which it is a party (Akyurt, 2008).

The Ramsar Convention, especially for the purpose of the Convention on Wetlands of International importance as Waterfowl Environment, is natural or artificial, continuous or transient, stagnant or catastrophic, sweet, bitter or salty; All waters, swamps, reeds and turbogens are wetlands, covering deeper depths (Culture and Tourism Ministry, 2019).

The Barcelona Convention, for the first time as a global issue, was discussed at the 1972 Stockholm Human and Environment Conference together with the concepts of

development and development and environmental protection. The most important aim of the conference is; the fact that each country accepts its responsibility to the environment is the unity of the human condition to be able to maintain its existence on earth (Union of Turkish Bar Associations, 2014). This agreement was published in the Official Gazette dated 1981 and numbered 17368 and was put into effect within the framework of the m Protocol on the Protection of Special Areas of the Mediterranean from the annexes of the 'Convention on the Protection of the Mediterranean Sea Against Pollution. Based on the goal of taking the Mediterranean as a whole; The establishment of special protected areas in the Mediterranean basin with the words protocol Protection of the Mediterranean Sea Against Pollution lar which is a party to the Mediterranean Sea and the conservation of the natural areas in the Mediterranean and the cultural heritage in the region. The level is expressed for the first time (Turkey's National Strategy for Marine and Coastal Protected Areas, 2014).

Bern Europe's Convention on the Conservation of Wildlife and Living Environments states that many species of wild flora and fauna are severely depleted and some of them are at risk of extinction. As regards the basic role of wild flora and fauna in the continuity of balances; the following bullet points were formed:

- The purpose of this Convention is to protect wild flora and fauna and their habitats, in particular to ensure the preservation of those who require the cooperation of more than one state and to develop this cooperation.
- Special attention is paid to species, especially migrants, which are endangered and may be endangered.

Summaries of Living Environment Protection, Protection of Species, headlines about Special Provisions on Migratory Species is located (Union of Turkish Bar Associations, 2014).

Turkey has become one of the most foreign exchange-producing sectors of the country through the policies and targets set in the direction of developing the sector in the post-1980 period with the tourism sector which is of great importance to its economy (url 15). Together with the Law on Travel Agencies and Association of Travel Agencies, which was issued in 1972, these developments ensured that the Environmental Law, the Law on National Parks, the Law on the Protection of Cultural and Natural Property and the Yacht Tourism Regulation came into force in 1983.

Fisheries Law No. 1380 covers the protection, production and control of aquaculture. Those who want to fish in aquaculture facilities have to get permission

from the Ministry of Agriculture and Rural Affairs but instead the Ministry of Food, Agriculture and Livestock is active. Permissions for aquaculture facilities are regulated by this ministry. Fines are imposed in unlawful approaches.

Under the Law No. 2565 on Military Prohibited Regions and Security Zones, maritime military prohibited zones are divided into two. The 1st degree military prohibited zones are determined by combining the first degree land military forbidden zones on the shore from the end of the coast to the sea direction and at all sides of the sea facilities, at least one hundred meters and most of the nautical miles (1,852 km). The same conditions apply in the second-degree naval military prohibited zones, but are determined by combining the selected points up to two nautical miles.

The aim of the Tourism Incentive Law No. 2634 is to arrange, develop, and maintain a dynamic structure and functioning of tourism sector. Some additional definitions have been made with the changes made in 2016. Sea tourism tools; private and commercial yachts, cruise ships and dive vessels belonging to natural and legal persons who have a seaworthiness certificate for travel, sports, leisure and tourism purposes. Marine tourism facilities: Safe mooring, landings, maintenance, repair and social services exclusively for sea tourism vehicles refers to the tourism facilities that offer some or all of the services. In the fourth part of the law, there are details about sea tourism enterprises.

The Law No. 2863 on the Protection of Cultural and Natural Assets aims to identify the cultural and natural assets that are needed to be protected, to regulate the operations and activities to be carried out, to determine the organization and duties of the organization that will take the necessary principles and implementation decisions in this regard. In the 2004 amendment, there is an expression. In terms of planning, in addition to the construction and physical interventions, other than the parcels where the immovable cultural property is located, for the purpose of protection, the permission and the supervision of the administrations established within the body of protection, implementation and inspection offices are added to the law.

Some definitions in Environmental Law No. 2872; Environmental protection: Environmental, ecological balance, to prevent the destruction, degradation and destruction, to eliminate the current deterioration, to improve the environment and to prevent the environmental pollution, all the work to ensure sustainable development based on the equilibrium between social goals etc. In order to protect the environment, the biodiversity that constitutes the natural environment, and the conservation of the ecosystem with this diversity are essential. The principles of conservation and

utilization of biological diversity are determined by taking opinions of local governments, universities, non-governmental organizations and other relevant organizations.

2873 The National Parks Law aims to regulate the national park, nature park, nature monument and nature conservation areas which have national and international values in our country.

In Turkey, 43 national parks (Ministry of Agriculture and Forestry, 2019) are available. In the map above, the red areas show the natural areas, the blue areas are wetlands and the green areas are the national parks. In the Yacht Tourism Regulation:

- "Yacht"; the yacht type built, used for travel and sporting purposes, the number of yachts to be carried not exceeding 36, the cargo or passenger ships in the nature, tonnage documents "commercial yacht" or "private yacht" as specified in the sea,
- Marina, the main marina, Tali Marina and Yacht berths and
- Side route ports are yachts that have the following characteristics: In addition to the major marina conditions, the main yachts define a large number of maritime ports covering a closed area away from the wave effect, as well as wintering and maintenance and repair facilities.



Figure 3.12. National park, nature park, nature monument and nature conservation areas in Turkey (Source: General Directorate of Nature Conservation and National Parks, 2019)

Also on board foreign or business is located outside of Turkey to certain limitations. The yacht enterprises can be used for sailing yachts, motor yachts and mixed yachts.

According to Coastal Law No. 3621; sea, natural and artificial lakes and streams, except in the case of flood, where the water touches the line consisting of the land line,

the coastal line; In the sea, natural and artificial lakes and streams, the natural boundary of sandy, pebble, rocky, stony, reeds, swamps and similar areas where water movements are formed in the direction of the shore after the shore line, coast; the coastal line between the coastline and the coastline; from the coastal line, in the direction of the land horizontally at least 100 meters, the width of the narrow coast; denotes the overlap of the shoreline with the shoreline (Figure 3.13).

In order to provide service to the cruise ship that is connected to the day's technology, the port services (electricity, generators, water, telephone, internet and similar technical connection points and lines) are provided to the passenger ships (cruise ships) to which the passengers are traveling with organized tours. It has the functions for tourism purposes (catering facilities, shopping malls, communication and transportation units, consultancy, information and bank services, accommodation units, office buildings), cruise ships and marinas with sea facilities and side facilities can be built.

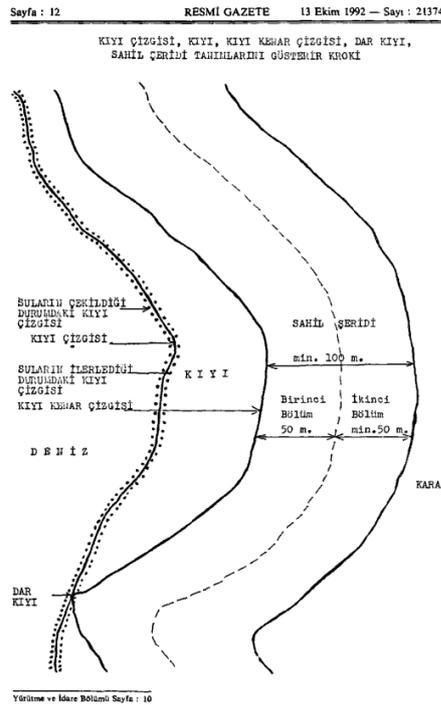


Figure 3.13. Coastal Zone (Source: Regulatory Information System, 2019)

In the Regulation on the Implementation of Coastal Law (1992), Aquaculture Production and Breeding Facility not to be included in the Coastal Law, Daily Tourism Facilities, Partial Building, Recursive Areas, Harbor, Cruise Port, Shipyard, Yacht

Harbor, Fisherman Shelter, Yacht Yacht Location, The definitions of the location of the boat, ship way, boat manufacturing and maintenance facility are detailed.

The Regulation on Instrumental Dives to be Performed for Sportive Purposes in Turkish territorial waters is defined as toolless diving and tool diving. No diving other than scientific studies is allowed in the regions where the law contains the required cultural and natural assets. The depth limit for sporty dives is 30 meters. However, this limit for training purposes is 42 meters. Sportive night dives for educational purposes can be made under the supervision of the instructors and with prior permission. Other than that, night dives are prohibited statements.

The Recreational Craft Regulation was published in the Official Gazette in 2002, based on EU criteria. This regulation was revised and put into force again in 2006. The aim of the regulation is to determine the basic safety requirements for the design and construction of separate and / or trip boat mounted components used as part of the partially completed cruise boat and excursion boat, and to ensure that the boat and its components are placed on the market in accordance with these requirements and to regulate the principles and procedures for market surveillance and supervision. In 2017, it was finalized as Regulation on Recreational Boats and Personal Watercraft. It applies to recreational craft and partially completed recreational craft, personal watercraft and partially completed personal watercraft, propulsion engines intended to be installed or installed on the marine vehicle, propulsion engines fitted to the vessel, and vessels subject to major modifications.

The aim of the Communiqué on the Determination of Indoor and Offshore Bay and Gulf Areas of Sensitive Area to be able to Install Fish Farms in the Seas is to establish the principles for the determination of closed cove and bay areas which have high risk of eutrophication in which fish farms will not be established.

The sensitive area criteria where the fish farms cannot be established are defined as the cove and bay areas where all the criteria corresponding to the parameters specified in the table below are provided. Fish farms cannot be established in these areas.

The flow rate is next to the facility; The wind speed is 0-3.3 m / s. It is measured in a calm, breezy and light windy weather conditions at a rate of 5 meters for 24 hours. Fish farms cannot be established in the natural and archaeological sites specified by the Ministry of Culture and Tourism.

Table 3.2. Parameters and criteria for the sensitive area of the fish farm (Source: Communiqué on Determination of Indoor Bay and Gulf Areas of Sensitive Area to Be Able to Build Fish Farms in Seas Law)

Parameter	Criteria
Depth	≤ 30m
Distance to Coast	≤ 0.6 nautical mile
Flow Rate *	≤ 0.1 m/s

In the Regulation on Environmental Inspection, activities or facilities that have a polluting effect on the environment include fish and aquaculture farms, seaports berthed for taking passengers on scheduled flights, fishermen's shelters, marinas and yachts with yacht berthing capacity under fifty yachts.

The reference point in the Communiqué on the Monitoring of Fisheries Plants Established in the Sea; from one of the cages located in the aquaculture facilities, between 500 and 1000 meters, selected points other than the dominant current direction and coordinates are determined; It refers to the facilities where juvenile fish are grown up to the time of harvesting, except for adaptation units operating on land, under the supervision of the Ministry of Environment and Forestry.

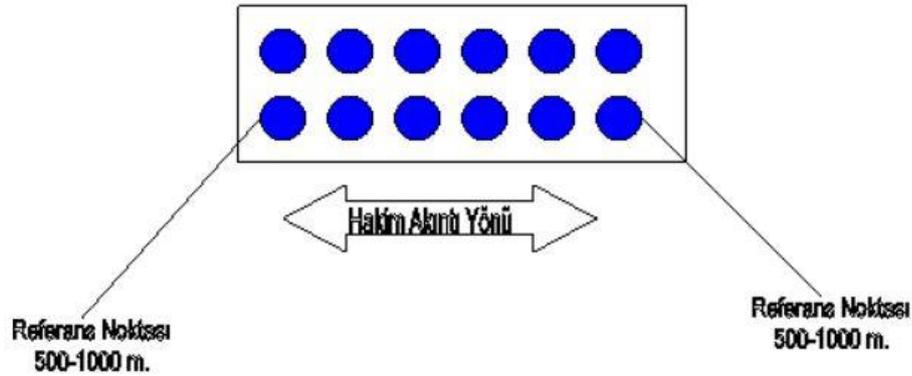


Figure 3.14. Fish Farming Conditions (Source: Communiqué on the Monitoring of Fish Breeding Facilities Established in the Seas Law)

There is no marine regulation. In the last 20 years, regulations have been made or added to this field. One of these is to provide tourism investment and tourism management documents to Turkish maritime registered commercial vessels and foreign flagged sea vessels for travel, sports and leisure purposes, which will work in maritime tourism facilities and sea tourism. Maritime tourism Regulation No. 2634 covers the navigational principles of Turkish and foreign flagged vessels in our territorial waters, their duration of stay in Turkey and their cabotage rights and other measures to be taken for the development of maritime tourism.

The purpose of the regulation is to improve the investment and management of maritime tourism facilities and vehicles in terms of maritime and tourism services; to increase the competitiveness and improve the quality of the maritime tourism sector in the international arena. In the content of the regulation, sea tourism facilities, cruise ship harbors and four and five anchor yachts are mentioned.

In the regulation, types of sea tourism vehicles; It has been named as cruise ships, yachts, day trip boats, immersible marine tourism vehicles, other sea tourism vehicles, floating sea tourism vehicles, special marine tourism vehicles and tourism and underwater and above-water activities. The Turkish and foreign flagged or foreign maritime tourism vehicles are also permitted under the Military Prohibited Regions and Security Zones Law No. 2565 and are prohibited by military security and private security zones.

Marine tourism enterprises acting within the scope of this Regulation, in January of each year, must inform the previous year the number of tourists brought to Turkey and staying in business and wintering boats to information with in a report their opinions to the Ministry for tourism assessment.

Sportive activity for tourism purposes in the Regulation on Sportive Activities for Tourism; rafting, paragliding, handgliding, underwater and underwater sports (vehicle-dependent or independent), horse riding, mountaineering and other tourism activities which will be developed as a variety of sports, sports and tourism activities.

The sporting activities are also determined by the Governorate. Underwater and above-water sportive activities are determined in accordance with the Law on the Protection of Cultural and Natural Property dated 21/7/1983 and numbered 2863 with the areas designated in accordance with the Military Forbidden Regions and Security Zones Law dated 25/12/1981 and numbered 2565. and natural sites. Sports activities for tourism purposes are supervised by the Ministry, the governorship and the relevant Board. One year after the publication of the Ports Regulation, additional definitions such as adjacent port, small maritime vessel, seaworthiness certificate were added.

In the national strategy for marine and coastal protected areas (2014), it is stated in the Decree No. 648 that the works and operations carried out by the Special Environmental Protection Agency specified in the Decree Law No. 383 will be carried out by the units of the Ministry of Environment and Urbanization, which are approved by the Minister of Environment and Urbanization(Turkey's National Strategy for Marine and Coastal Protected Areas, 2014).

In our country, the announcement of the Special Environmental Protection Area is made with the decision of the Council of Ministers upon the proposal of the Minister of Environment and Urbanization by taking the opinion from the relevant Ministries (Turkey's National Strategy for Marine and Coastal Protected Areas, 2014).

The purpose of the Communiqué on the Regulation of Commercial Fisheries Hunting No. 4/1 is to protect the fisheries resources by taking into consideration the scientific, environmental, economic and social issues to be applied for commercial fishing in 1/9 / 2016-31 / 8/2020, and to regulate the obligations, restrictions and prohibitions on fishery fishing in order to ensure sustainable operation.

The purpose of the Communiqué No. 4/2 on Amateur Aquaculture Regulation is to ensure that amateur fishery is carried out under certain rules between 1/9 / 2016-31 / 8/2020. to determine the principles and principles of hunting.

Amateur fishing tourism (domestic and foreign amateur fishermen participate in the amateur fishing tourism activity, provided that they comply with the rules laid down by this Communiqué), amateur underwater hunter (sunrise to sunset until the sunset within the scope of this Communiqué and security is not prohibited in our waters, additional air outside his own breath a) where the aquaculture can be established where any fisheries or plants can be established in or on which hunting, production, cultivation and production can be established, sportive fishing (based on the rules laid down by sport fishery fishery, harm to the fish caught, returned to water in healthy and alive) is defined as activity.

Amateur fishing tourism is carried out with 2 years valid permits as stated in the regulation. In addition, fishing is prohibited in the Marine Military Restricted Areas.

Published in the website of the Ministry of Environment and Urban Planning in Turkey are 18 units of Special Environmental Protection. Turkey's surface area: 779 452 square kilometers is the total area of special environmental protection are also 25829.68 square kilometers (Figure 3.15).

In addition to all these resources, in the scope of the planning, the Regulation on the Production of Spatial Plans published in 2014;

- Annex 1 A in Joint Representation; Protected Area for Protection of Marine Legend as a Field for Protection of Specially Protected Areas, Special Environmental Protection Area, Ecological Nature Preservation Area, Sea

Turtles Reproduction and Conservation Area, Mediterranean Monk Seal Area, Marine Transport Connection as Technical Infrastructure, Shipyard Area,



Figure 3.15. Protective zones in Turkey (Source: Environment and Urban Ministry, 2019)

AKDENİZ FOKU YAŞAM ALANI				ŞEFFAF
DENİZ KAPLUMBAĞALARI ÜCREME VE KORUMA ALANI				ŞEFFAF
DENİZ ULAŞIM BAĞLANTISI				
TERSANE ALANI				130/130/130

Figure 3.16. Protected Area for Protection of Marine Legend (Source: Regulation on the Production of Spatial Plans)

- In Appendix 1 B Spatial Strategy Plan Screenings; Ports in Main Transportation System,
- In Annex 1 Ç Nazım Development Plan Screenings; Coastline, Technical Infrastructure Port, Fisherman's Shelter, Pier,
- In Annex 1 D Implementation Zoning Plan Screenings; Coastline, technical port, Container Port, Cruise Port, Ro Ro Port, Yacht Harbor, Fish Market, Scaffolding, Boat Building and Vessel Location, Ship Dismantling Location, Culvert, Spur, Dock, Shelter, Dolfen / Platform are located.

KONTEYNER LIMANI				130/130/130
KRUVAZİYER LIMAN				130/130/130
RO-RO LIMANI				130/130/130
YAT LIMANI				130/130/130
BALIKÇI BARINAĞI				204/204/204
ISKELE				204/204/204
TEKNE İMAL VE ÇEKME YERİ				178/178/178

Figure 3.17. Ports in Main Transportation infrastructure (Source: Regulation on the Production of Spatial Plans)

GEMİ SÖKÜM YERİ				204/204/204
MENFEZ				204/204/204
MAHMUZ				204/204/204
RIHİTİM				204/204/204
BARINAK				204/204/204
DOLFEN/PLATFORM				204/204/204

Figure 3.18. Coastal infrastructure (Source: Regulation on the Production of Spatial Plans)

- Annex 1 C Environmental Plans do not include information on marine areas.

For the annexes added in 2015; Coastal Facilities Area, Annex 1 to Ç; Aquaculture Production and Breeding Facility, Boat Building and Maintenance Site, Boat Building and Seat Site, Coastal Protection Structures, Ship way, Annex 1 D; Aquaculture Maintenance Farm, Boat Building and Maintenance Facility, Coastal Protection Structures, Ship way.

TEKNE İMAL VE BAKIM YERİ				204/204/204
TEKNE İMAL VE ÇEKME YERİ				178/178/178
KIYI KORUMA YAPILARI				204/204/204
DENİZ İNİŞ RAMPASI				204/204/204

Figure 3.19. Coastal structures of different sizes (Source: Regulation on the Production of Spatial Plans)

Legislation in connection with the maritime borders of Turkey are given in chronological order. The following table shows the date of entry into force of laws on protection, environment and marine areas.

Table 3.3. Details of the laws of Turkey

Date of entry into force	Laws / Regulations / Notification	Related Ministry
1971	Fisheries Law	Ministry of Food, Agriculture and Livestock
1972	Union of Travel Agencies and Travel Agencies	Culture and Tourism Ministry
1981	Military Forbidden Regions And Security Zones Law	President and Chief of General Staff
1982	Tourism Incentive Law	Cultture and Tourism Ministry
1983	Cultural and Natural Heritage Protection Act	
	Environmental Law	Minister of Environment
	National Parks Law	Ministry of Forestry and Water Management
	Yacht Tourism Regulation	Culture and Tourism Ministry
1990	Coastal Law	Environment and Urban Ministry
	Implementing Regulation on Instrumental Dives for Sportive Purposes in Turkish territorial waters	Culture and Tourism Ministry
2002	Recreational Craft Regulations	Maritime transport and Communications Ministry
2007	Communiqué on Determination of Indoor Bay and Gulf Areas of Sensitive Area to Be Able to Build Fish Farms in Seas	Ministry of Environment and Forestry
2008	Regulation on Environmental Inspection	
2009	Communiqué on the Monitoring of Fish Breeding Facilities Established in the Seas	
	Sea Tourism Regulation	
2011	Regulation on Sportive Activities for Tourism	Culture and Tourism Ministry
2012	Ports Regulation	Maritime transport and Communications Ministry
2016	Communiqué on the Regulation of Commercial Fisheries Hunting No. 4/1	Ministry of Food, Agriculture and Livestock
	Amateur Purpose Fisheries Communiqué Regarding Regulation of Hunting No. 4/2	

CHAPTER 4

BLUE GROWTH in IZMİR PENINSULA

4.1. Blue Growth in Izmir

The population of Izmir is 4,320,519 according to TÜİK ADNKS 2018 data. Population increased by 40,842 people compared to the previous year. Izmir, which is located in the Mediterranean climate zone, has warm and dry winters with warm and rainy summers. The stretches of the mountains to the sea and the introduction of the plains to the west of the Inner Western Anatolia allow for the spreading of marine influences as far as the interior. Growing in the Mediterranean climate region, large, hard and coniferous, constantly green, drought-resistant trees and shrubs are common features of natural vegetation. Red pine, pistachio pine, black pine, cypress, maple and olive trees are abundant in vegetation. The vineyards and orchards take up quite a lot of space (Izmir Provincial Directorate of Culture and Tourism, 2019) and also there are more than 30 islands around the peninsula (List of islands in the Turkey, 2019).

Izmir is the third largest city in Turkey; it is not only a modern, developed, but also a busy trading center. While the city center is active in the area of trade; small industrial estates, organized industrial zones, free zones and technoparks also contribute to the development of the urban industry. Trade centers in Izmir are bazaars, trade sites and shopping centers in the city center. Agriculture, animal husbandry, fisheries, maritime, wholesale retail and trade, tourism, logistics and energy sectors are the most important sectors in terms of investment. Izmir has various tourism opportunities such as yacht tourism and cruise tourism (Izmir Chamber of Commerce, 2019).

Izmir; with its feature of being a port city, has become a prominent trade center in every period of history. Izmir has a fertile soil around a protected bay, qualified workforce structure, raw material and intermediate product resources, suitable climate conditions, developed port and logistic infrastructure, foreign trade oriented business

environment and its proximity to domestic and foreign markets with the advantages of many economic activities is centralized. The ports have a large share in the foreign trade of Izmir (Izmir Chamber of Commerce, 2019).

The port has existed as one of the most important components of the economic, social and cultural life of the city of Izmir. The port influenced not only the city, but also the area and region of the city. It was cosmopolitan structure. In the meantime, economic effects have led to the development of agriculture, industry, trade, services and tourism sectors. The foundation of the harbor is in the natural and protected İzmir bay. Therefore, the existence of the port depends on the ecological and economic sustainability of the Gulf of Izmir (Sönmez, 2018).

Place in the history of the Gulf of Izmir; the coastal line of the Mediterranean Sea was formed by the intersection of the surface of the water collected in the basins and the surrounding topography. One of the deepest gulfs on this coastline is the Izmir Bay. It was taken deep into the land. Cargoes brought here by sea transport are transferred to land transportation vehicles here. These points had to be equipped with port to gain function. These special points have created the cities because they have collected economic activities and population due to their superiority. The development of world civilization through interactions on the sea has taken place in the Mediterranean. The gulf was neglected as a result of the difficulties in the rapid urbanization process from World War II to the 1980s. However, after this date, the city has been one of the important agenda items (Tekeli, 2018).

Territorial, Coastal, Gulf and Marine Environments; defining that the sea factor should be examined after explaining the coastal and gulf concepts while creating environmental plans on land, Tekeli defines a line forming the intersection of sea and land environments for the coast.

The sea contains a salt water environment, a chain of life that can extend from plankton to whole. Human beings are separated from other living things by producing culture. Human culture / technology can create a land-like environment where people can live on the sea with the boats it manufactures, allowing people to live in the marine environment. Sea and land environments vary in some areas (Tekeli, 2018):

- In terms of the resources they provide for life. The sea is able to reproduce sea products.
- They also differ significantly in terms of property rights and forms of control. Since it is possible to prepare cadastral maps on land, it can be private property.

As a matter of principle, the owners of this property can benefit from it as it wishes and may prevent others from benefiting from it. They can buy and sell with their personal decision. However, a personal property facility in the sea is impossible. Property at sea cannot be broken. It cannot be bought and sold. Therefore, there is a common property.

The concept of shoreline is defined as a line in the intersection of the two mediums, but Tekeli considers this definition incomplete and describes the option to define three different types of boundaries as follows (Tekeli, 2018):

- The first is to consider the limit of transition from the environment to the other environment. For example, if a ship is berthing or departing, a port will be required. On a small boat, the pier will suffice.
- The second is the existence of an intersection that is constantly moving or redefined due to the continuous interaction of sea and land. For example, in a very wavy sea, the line that the sea reaches to the shore enters much inside. There is also a regular change in the tidal event. In this case, the intersection is determined not only in space but also in time and space.
- A third perspective is to approach the saline waters as a transition zone from the freshwater environment.

In summary, when all three coasts are taken into consideration, the line understanding is insufficient and it is replaced by a sense of band. This band consists of two parts. The first part is formed by the displacement of the moving intersection over time. The second part is a mandatory band section created by the existence of private ownership in the land environment while there is common ownership in the sea. Landowners need to have direct access to the sea in order to reach the resources that are the subject of common ownership in the sea. For this, a band on the shore should not be the subject of ownership (Tekeli, 2018).

The types and characteristics of coastal use structures are related to maritime trade and passenger transportation; harbors, piers, marine pipelines; marinas; fishing; fishing shelters. In addition, coastal protection structures and recreational fillers are also included Table 4.1 (Ministry of Environment and Urban Planning, 2011).

In the ninth development plan (2007-2013), the sections related to sea areas are as follows; The EU acquis in the context of strengthening maritime safety in Turkey transport and work was carried out in order to comply with the application. Port capacities, especially in İzmir Region, Marmara and Mediterranean Regions, can be

increased. In terms of tourism, yacht, congress tourism and ecotourism will be carried out. In fisheries policies, it is aimed at establishing a resource utilization balance in fishing and to ensure environmental sustainability in rapidly developing aquaculture activities.

Table 4.1. Claims and activities in coastal areas (Source: Uslu et al., 1995)

Commercial fishing	Oil and Natural Gas Production	Sand and gravel production	Energy production	Protection from storm effects	Scientific Research	Defense Activities
Amateur Fishing	Oil and Natural Gas Transmission	Mining Production	Residential Area Development	Thermal Power Plant Construction	Training	Aquaculture Production
Recreation	Shipping / Sea Transportation	Salt Production	Agriculture	Protection of Resources	Artificial Islands and Fill Fields	Scan
Tourism	Port Construction	Fresh Water Production	Wastewater Discharge	Natural Parks	Submarine Cable and Pipelines	Industrial Development

In the tenth development plan, cruise tourism is considered to be one of the potentials. In aquaculture, environmental sustainability will be considered; product diversity and branding will increase competition in international markets.

In short, in the Tenth and Ninth Development Plans, policies have begun to be developed within the scope of harmonization with the EU, but Izmir's share has been limited to policies to increase the share of maritime transport in transportation.

Maritime Developments in Izmir; In the last thirty years, the interventions and developments concerning the coastal and maritime areas within the scope of Izmir province are given in chronological order below.

In the context of the Mediterranean Action Plan Priority Action Program of 1994 (MAP-PAP), Izmir Integrated Management Project was implemented to reduce pollution in Izmir Bay (Ministry of Environment and Urbanization, 2011). The Master Plan for Tourism in Izmir (Ministry of Environment and Urbanization, 2011) in 1998 is shown (Figure 4.1).

In 2000, The Grand Channel Project was conducted in Konak, Bostanlı, İnciraltı, Güzelbahçe and Urla districts. The channel beds were canceled and the canal lines were taken to the edge of the river and the streams were only carried to the Bay (Izmir Metropolitan Municipality, 2019).

In 2011, the integrated coastal zone management and planning project, the coastal areas, spatial strategy, coastal and marine ecosystems, nature conservation and conservation areas, maritime sector, ports, coastal and equilibrium structures, tourism and aquaculture sectors were presented. The aim of the project is to develop the existing planning system (planning approaches, implementation tools, institutional structuring and management approach) within the framework of United Nations Environment and Development Framework. The program is for the protection of the Agenda 21 and most of the coastal resources and for the sustainable use of the coastal areas in international areas; to develop strategies, action programs and guidelines for strategies, action programs, guidelines, protection of coastal resources and sustainable use of coastal areas (Ministry of Environment and Urban Planning, 2011). The plan for Izmir is divided into regions as follows.

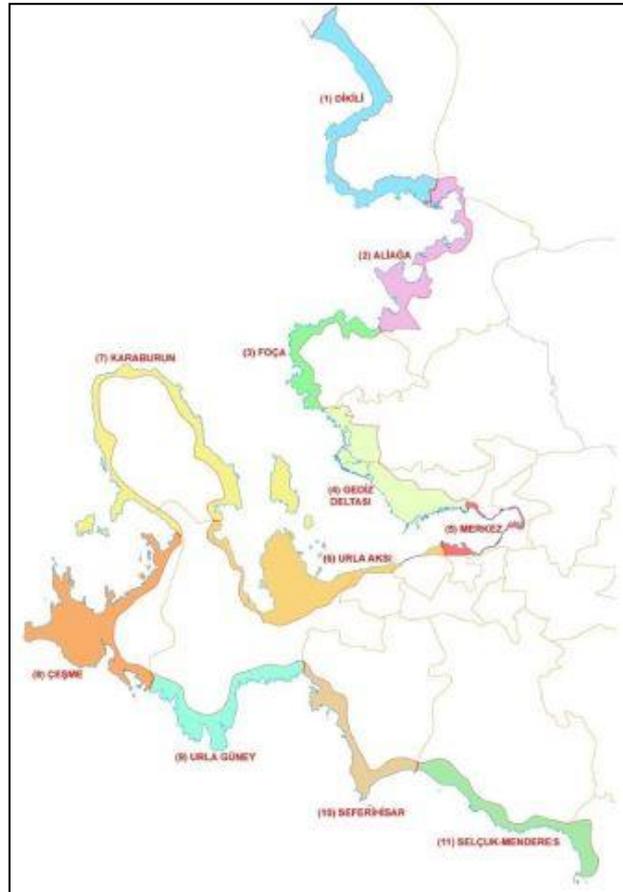


Figure 4.2. Project area zones (Source: Ministry of Environment and Urban Planning, 2011)

In 2011 Izmir Bay and Port Rehabilitation Project, Izmir Metropolitan Municipality, the General Directorate of Water and Sewerage Administration General Directorate and

the Republic of Turkey State Railways, İzmir to improve the efficiency and capacity of the harbor, bay to improve water circulation and quality of İzmir Bay, this study was carried out in a part of the inner and middle gulf in order to increase its economic and ecological value (Chamber of Civil Engineers, 2019).

In the 2013 İzmir Development Agency, -Development Workshop Report, issues such as increasing the recognition in the Mediterranean and the Mediterranean regions in the sectors and areas in which İzmir can be competitive, strengthening the relationship between İzmir and the sea in daily life, transportation, domestic and foreign centers in İzmir and diversification issues were introduced (İzmir Development Agency, 2013).

2014 The protection of the sea against pollution is provided by the application of blue card system. The system developed for small marine vehicles is a ship waste tracking system that ensures the waste of ship and water vehicles, regardless of the flag, and the wastes received by the waste reception facilities via a magnetic card. In the Turkish maritime jurisdictions, which are put into force by the Ministry, waste collection services are carried out by using blue cards in waste reception vessels, fishing shelters, yacht harbors and similar coastal facilities, and this ensures that waste is monitored (Maritime Chamber of Commerce, 2019).

2018 Çeşme Blue Growth Strategy Workshop; The workshop organized by Dokuz Eylül University, Chamber of Marine Commerce İzmir Branch, Cesme Municipality and Cesme Seafarers' Association discussed long-term strategies to support the sustainable growth of the sectors related to Blue Growth, Marine and Maritime. The aim of the workshop is to bring people together and to produce sustainable strategies and to put forward a common sense of how to manage the places that stand out with their sea (Agenda Çeşme, 2019).

In addition to these initiatives, academic studies also contributed to İzmir. For example, in the case of Yücel-Gier, et al., 2010, the situation of the Gulf of İzmir was spatialized. Gives information about the protection of fish farms and their impacts on coastal management (Yücel-Gier, 2014). Developments involving the relevant part of the regulations for İzmir following the works in İzmir are also shown in the following regulations (Figure 4.3).

In the Regulation on the Amendment of the Ports Regulation, port coordinates are located (eg Çeşme Port).

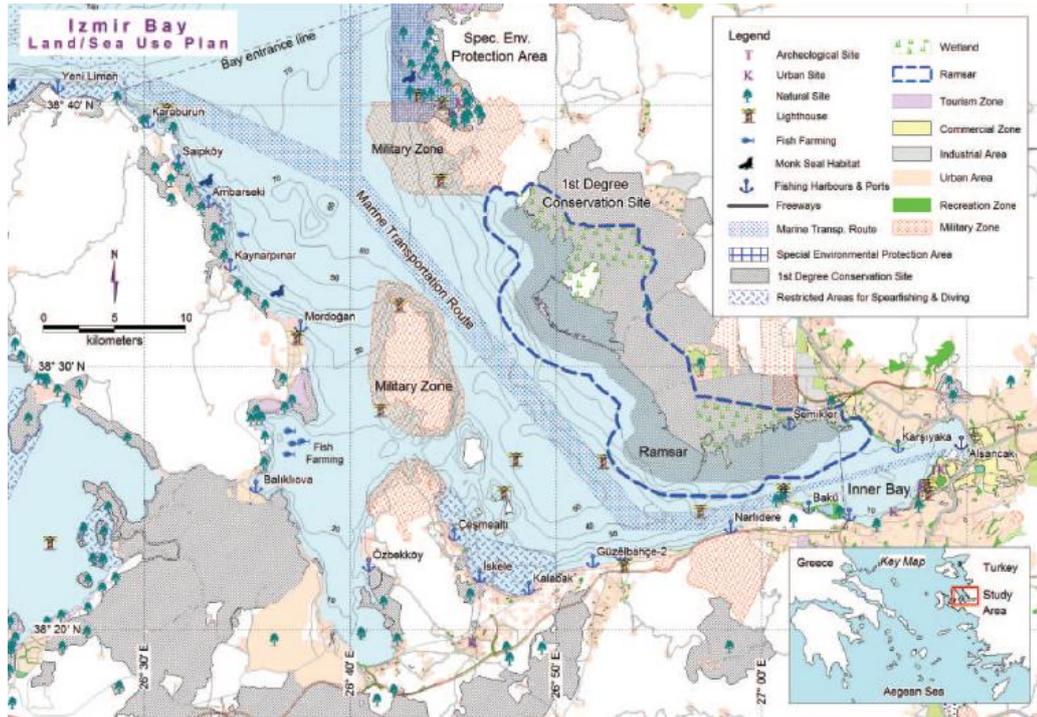


Figure 4.3. General Layout of Izmir Bay (Source: Yücel-Gier, 2010)

In addition, the anchorage areas of the ports are indicated as coordinated. In the above figures, the authority limits of Izmir and Çeşme port presidencies are drawn. In addition, Izmir Traffic distinction scheme is included in this regulation.

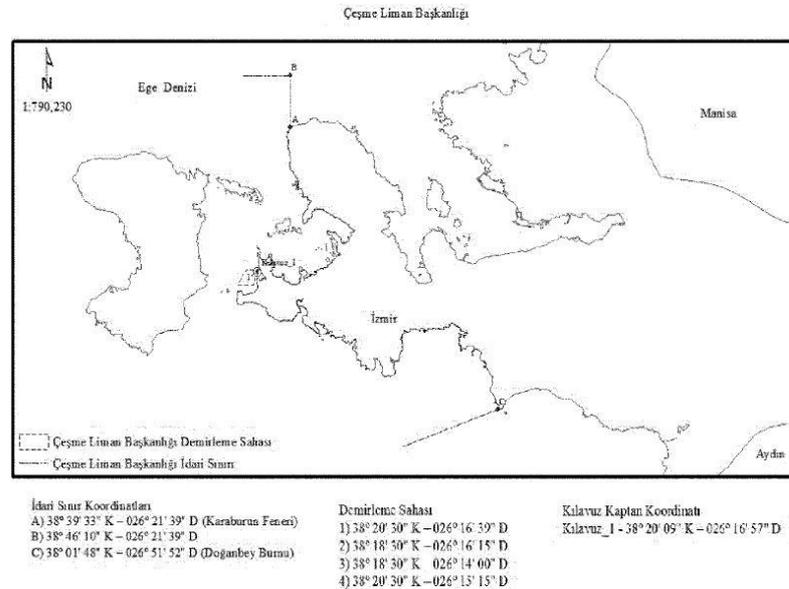


Figure 4.4. Çeşme port authority jurisdiction (Source: Regulation on the Amendment of the Ports Regulation, 2013)

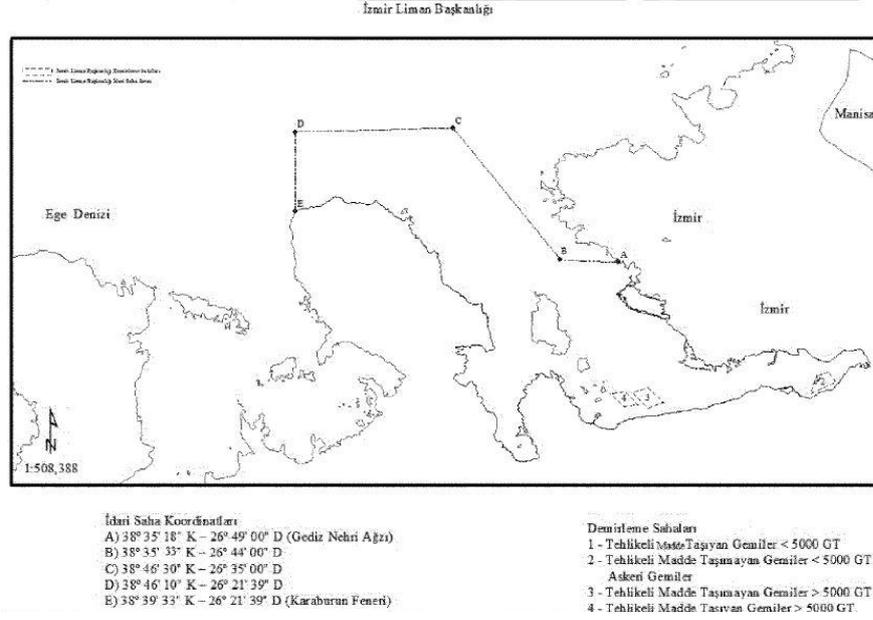


Figure 4.5. İzmir port authority jurisdiction (Source: Regulation on the Amendment of the Ports Regulation, 2013)

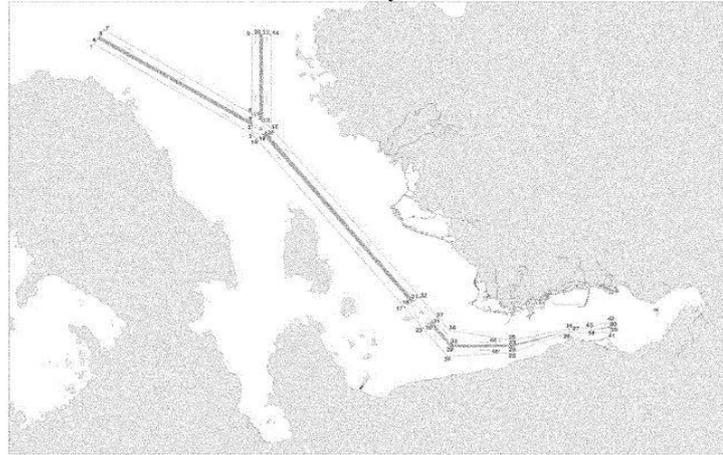


Figure 4.6. İzmir Bay Traffic Separation System (Source: Regulation on the Amendment of the Ports Regulation, 2013)

Within the scope of the site prohibitions contained in the Communiqué on the Regulation on the Regulation on Hunting of Commercial Fisheries, No. 4/1, the areas affecting the İzmir peninsula in Çeşme, Karaburun, Urla in the Aegean Sea Location Prohibitions section are as follows:

- In Çeşme province of İzmir province; In the area to the southeast of the line connecting the Fener Cape to its opposite coordinates (Figure 4.7),
- In the Karaburun Peninsula Mordoğan; In the area connecting Ardıç Cape and coordinate points to Ege University Agricultural Experiment Station (Figure 4.7),

- Fisheries are prohibited within 500 meters (Figure 4.7) from the coast of Uzunada, where the Uzunada Naval Command Naval Military Forbidden Zone is located in Izmir Bay.

Furthermore, it is forbidden to use light in the coastal caves with underwater or above water entry, to dive with any means, to swim or to enter through any sea, to wait at the cave entrance and to anchor. In the period between 1 April and 15 November, fishing is prohibited within the swimming areas, which are not more than 200 meters away from the beach and surrounded by buoys.

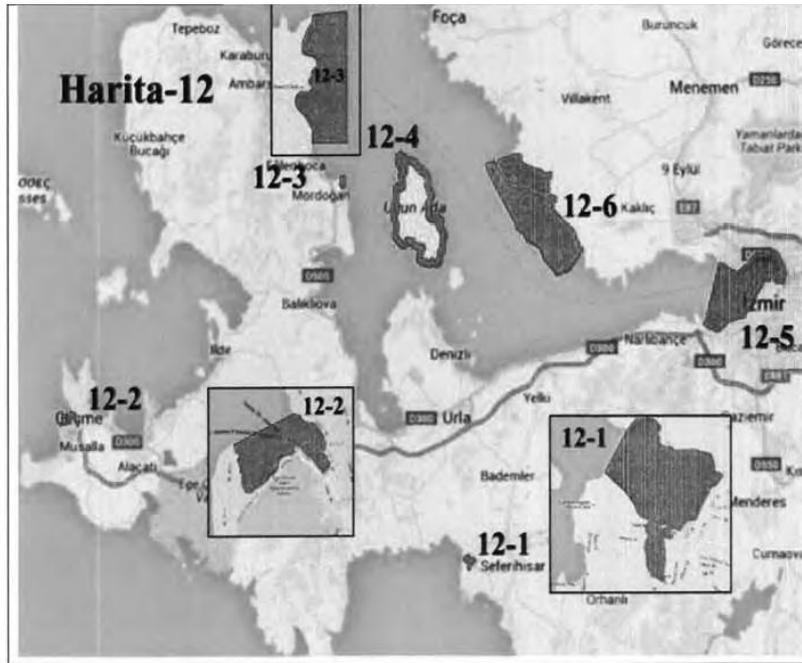


Figure 4.7. Fisheries prohibition areas (Source: Communiqué on the Regulation of Commercial Aquaculture No. 4/1)

Prohibitions regarding trawl ban, trawl prohibition and prohibitions on light fishing, Çeşme Karaburun in İzmir are the following areas affecting Urla peninsula:

- All types of trawl ban are located in the southeast of the line between Çolak Cape and Çeşme Uçburnu in the Gulf of Ildır (Figure 4.8),
- In the area to the southeast of the line joining the Ardiç Point and the Deveboynu in the Gulf of Izmir (Figure 4.8),
- Within the 1.5 mile distance between the Karaabdullah Burnu and the Edirne Boztepe Point of the deep trawl (Figure 4.9),
- Trawler nets and gates cannot be unsealed during the periods when the bottom trawl hunting is prohibited at the port, fishermen's shelters and shelter areas.

- In the area to the east of the line drawn between Çolak Cape and Çeşme Uçburnu in the Gulf of Ildır on the hunting of light (Figure 4.9),
- Light hunting is prohibited in the area to the south of the line drawn between the Ardiç Cape and Kapan Cape in the Gulf of Izmir (Figure 4.9).

The European Union, the Common Fisheries Policy and the Blue Growth Agency are the reason why it determines culture fisheries as the primary area of development (Girenes, 2018). Izmir also has potential in other areas of blue growth. For example, researching the possibilities of using some seaweeds collected in Izmir Bay in organic fertilizer production (Önalın and Gökpinar, 2012) shows that it has potential in the field of blue biotechnology. However, tourism, fishing and fish farming are dominant. For this reason, the intensity of the factors in Çeşme, Karaburun and Urla districts will be examined.

Table 4.2. Information on the interviewed institutions

Interviews	Interviewing Institutions	The Interviewer's Position	Interview Dates
1	Underwater Research Association Mediterranean Seal Research Group	Researcher	23.08.18
2	Cesme Deep Nature Diving Center	Diving instructor	14.03.19
3	Cesmealti Windsurf and Sailing Club	Trainer	17.03.19
4	Çeşmealti Fisheries Cooperative	President	17.03.19
5	Ege University Faculty of Fisheries	Dean	18.03.19
6	Izmir Port Authority	Assisterende general manager	21.03.19
7	DEU Institute of Marine Sciences and Technology	Academician	21.03.19
8	Chamber of Shipping	European Union Relations Specialist	25.03.19
9	Provincial Directorate of Culture and Tourism	Branch chief	25.03.19
10	Turkey Sailing Federation	Arbitrator	26.03.19
11	Cesme Marina	Personnel	26.03.19
12	Ulusoy Çeşme Port Management Inc.	Worker Director	26.03.19
13	Ege University Faculty of Fisheries	Academician	27.03.19

In-depth interviews were conducted with literature review, statistical data and complementary items. Information about the interviewees is given in the table below. Interviews were conducted unstructured. In each institution interviewed, open-ended questions were asked and necessary was obtained (Table 4.2).

The duration of the interviews was between half an hour and one hour. The questions were selected according to the institution concerned. Details of the questions are attached. Interviews were held with Izmir Port Authority officials on sea, ports, basic maritime information, sea control and fishing. The jurisdiction of the port authority is up to the outer bay. Urla and Karaburun are within this area, and Çeşme is connected to Çeşme Port Authority. The problems encountered in the seas are within the scope of non-compliance with the prohibition of fishing in the fishing sector or the non-compliance with the types of fishing. Maritime security is supervised by the Coast Guard and Boat Command.

4.2. Marine Tourism

Izmir has a coast of 629 km to the Aegean Sea. 101 km of it is a natural beach (sandy beach). As of 2007, there are 9 beaches with blue flags and 1 marina within the borders of Izmir Metropolitan Municipality. Four of them are in Gümüldür, two in Karaburun and three in Foça. (Izmir Metropolitan Municipality, 2011).

The coasts of Izmir, the peninsula and the bordering geography, outside the beach allow for water sports. The sea tourism areas that can be developed in Izmir are yacht and cruise tourism. Yachting, which was considered to be a sport belonging to only upper income groups in the past, is now regarded as one of the important tourism components of the world in terms of its returns. With the evaluation of the natural position of Izmir in terms of the yachtsmen and cruise ships traveling in the Mediterranean, making it a center of attraction makes it possible to increase the share of tourism revenues in the short term (İzmir Metropolitan Municipality, 2010).

Sea tourism and tourism are not separated from each other with sharp lines. Sea tourism is also mentioned by Mark Orams in his book *Marine Tourism*. For example, sea-sand-sun (3S; sun-sea-sand), yacht tourism, cruise, water sports (diving, windsurfing, kitesurfing, sailing, canoeing, paddling, etc.), sportive activities for tourism purposes even though it is not based on any sports discipline such as passing jetski, parasailing, banana such as inflatable water toys etc. recreational activities, marinas, fishing, fishing or bird watching tours are kinds of sea tourism. (Kan, 2018).

In the past, diving, kitesurfing, windsurfing and sailing branches, which were preferred by the tourists for the purpose of leisure, but which is one of the sports related to federation in the international platform in terms of water sports, are also carried out as professional sports. In 2009, Sea Tourism Regulation, the Regulation on Implementation of the Maritime Tourism Regulation and the Regulation on Tourism Sportive Activities, which were put into force in 2011, established district committees and work was initiated to take advantage of the sea (Doğan, 2018).

The academics at the Institute of Marine Sciences and Technology of DEU have been interviewed about maritime tourism and marine parks related to the affected actors as a result of the declared areas. The first artificial reef study in Izmir was carried out in Urla. There is a confusion of authority on the use of land in marine areas. At the end of the meeting, it has been shown that special legislation should be created for the peninsula, controlled use areas should be created, sensitive studies should be carried out to create artificial reefs, municipalities and the public should be in cooperation.

The problems experienced in maritime tourism were discussed with the authorities of the Provincial Directorate of Culture and Tourism. Daily boat status, routes and season, Sea tourism, Alaçatı, sea problems were received information about. Among sportive marine tourism activities are yachting, diving, windsurfing, kitesurfing and sailing and recreational sports (jet ski, banana, water ski, canoe, sea bike etc.)

Reef areas have a great impact on diving tourism and fishing. Reefs are divided into two as artificial and natural. Artificial reefs were built to increase fish production until the 1980s. In recent years, environmental and protectionist issues such as improving water quality (Angel and Spanier, 2002) and renewing the ecosystem (Rilov and Benayahu, 2000) have priority in determining the objectives of artificial reef projects. The first of the artificial reef study was carried out in Turkey in Izmir Bay (Lök and Gül, 2005).

Recreational water sports (jet ski, banana, water ski, canoe, sea bike etc. Icmeler-Urla, Akkum-Seferihisar, Çandarlı-Foça, surfing, windsurfing and kite surfing, jet ski, banana, water skiing, sea bike, Menderes, Karaburun, Dikili and Selçuk are preferred for water sport activities with canoe etc. vehicles (İzmir Development Agency, 2019).

As for yacht tourism in Izmir, we already have virgin bays which are not delivered to the construction sector. Yachts continue their activities by taking breaks in these bays. At the break points of yachts, it is dangerous and forbidden to do sportive activities for recreational purposes. In the sea, the sporting activity is not seen by the sports

organizations in terms of safety of life and property and navigational safety. In these bays, the demands of sport activity tracks on the water are not accepted in terms of life and property safety and navigational safety at sea (Provincial Directorate of Culture and Tourism, 2018).

When the yachts anchor in the bay for a long time, they cause environmental pollution and they have food and beverages with jet skis and small motor boats from the land and nearby restaurants. This has a negative impact on maritime traffic. It is necessary to work on this service at certain hours. Yacht rented without official documents constitute an uncontrolled risk of life safety. These problems can only be prevented by public awareness and changes in legislation (Provincial Directorate of Culture and Tourism, 2018).

Kitesurfing in Turkey is a sport which is performed according to the rules of sailing federation. The following conditions are required while determining the course area in which sports will be performed on the provincial boards of tourism activities:

- lack of settlements on the coastline where the sport will be built
- preferable areas with a geographic location such as shallow sea area delta
- Lack of marina on the way to the ship, like a fishing shelter soon
- other types of motor and recreational sports should not be done in the same area (such as cycling, canoe, jet ski, banana).

In addition, the marine areas are used as a course for sportive races. In Izmir, numerous competitions are held by Turkish Sailing Federation. Competitions in Optimist-laser, RS: X, Techno293, RS: One, funboard and IOM classes are held in Çeşme, İnciraltı South Sea Field Command, Çeşme, Çeşmealtı, Urla, Karşıyaka, Foça and Torasan (İzmir Development Agency, 2019).

Sailing with an arbitrator in the competition training fields, race types, the use of clubs in the sea were interviewed. Non-sportive sea tourism activities are classified as cruise tourism, daily boat, gulet, blue tour.

4.2.1. Çeşme

The population of Çeşme was recorded as 43.489 (TUIK, 2019). In the summer, the population is doubling its current status. There is no industrial investment in the district.

Çeşme is a tourist resort of Izmir. Economic activities in this region are therefore based on tourism. The region attracts a lot of tourists during the summer months. All

shores of the peninsula; sandy beaches, thermal springs, clean and different coasts with alternating temperatures, sea bays and bays with different winds are an important advantage in terms of tourism. In addition, there are 10 blue flag beaches (Ilıca, Boyalık Bay, Şifne-Büyük Liman-Paşa Port, Ildırı, Dalyan and Sakızlı Bay, Çiftlikköy and Pırlanta Beach, Çatamaz Beach). The only blue flag marina is Setur Marina (Izmir Provincial Directorate of Culture and Tourism, 2019).

Coastal Usage Information:

It is stated that the ships and various sea vehicles are berthed, moored to the buoys and separated from the buoys in the port, and that the ships and various sea vehicles are bound to the permission of the Harbor Master.

Within the scope of this instruction, the companies that make water sports within the boundaries of the Port Authority will build a corridor consisting of buoys 25 meters wide and 200 meters long from the beach for their boats. Power boats will not near 200 meters from the beach, they will maintain a distance of at least 100 meters, they will not speed more than 5 miles in the entrance exit aisle.

Cesme Ulusoy International Port:



Figure 4.10. Çesme Ulusoy International Port (İzmir Development Agency)

Kuşadası is the port city where the most cruise ships and hence the cruise passengers are frequent in our country. When the passenger rankings are made according to the port authorities Ulusoy Çesme and Antalya Ports (Güngör, 2018).

The berth: Total berth length is 480 m. Water depth along the berth is 7-10 meters at the ship's attachment points. There are cruise ship pier, Ro-Ro pier and small ferry pier.

- Cruise Ship Pier; the length of the pier is 150 m, and the depth is 8-12 meters along the pier. Extension of this pier from 150 meters to 322 meters continues.
- Ro-Ro Pier; In order to prevent Ro-Ro traffic and cruise traffic from being affected from each other, the pier was built 213 meters long.
- Small Ferry Port (Low Ramp Pier) The low elevation ferry port, which was commissioned in 2004, is 50 m long and 5 m wide. Small-tonnage ferries sailing to Chios on both sides can berth and serve up to 5 500 GRT vessels at the same time (İzmir Development Agency).

The following services are generally provided in Çeşme Port. It serves Ro-Ro vessels operating in Çeşme-Trieste (Italy) line (this also includes 3 Ro-Ro vessels with a total capacity of 435 trucks in 2012).

There are cruise ships operating on the Greek Islands and 2 cruise ships on the Greek islands in Çeşme (Chios, Çeşme). There are small ships on the Chios Island (Greece) line. The day is 6 days a week in the winter) (İzmir Development Agency). Çeşme and Chios of Greece in summer, seven days a week in winter, two days of the week in winter, the ferry service is carried out regularly. Çeşme is 8 nautical miles between Chios and 45 minutes by ferry (Ulusoy Çeşme Port, 2019).



Figure 4.11. Cruise Ships Routes (Source: Ulusoy Çeşme Port, 2019)

Çeşme Ulusoy Port Operation officials and cruise sea tourism data, ship types in the port, the frequency of cruise ships, seasonal port mobility was discussed. In addition, physical investments made for cruise tourism;

- Pier was extended from 150 m to 322 m,
- Ro-Ro pier and site were built,
- Passport control point increased from 4 to 8,
- 170 car capacity parking lot was built,
- Incoming Passenger Hall was built to serve the incoming passengers.

The details of the cruise statistics in Çeşme cruise tourism are given as follows.

Table 4.3. Cruise Ship and Passenger Statistics by Port Authority End of 2017 (Source: Ulaş, 2018)

Port authority	Cruise Ship				Cruise Passenger			
	Cruise Ship Passenger Ship	Cruise Ship	Other Ship	Total	Incoming passenger	Departing passengers	Transit Passenger	Total
Çeşme	61	1	0	62	27.689	28.311	10.021	66.021
İzmir	18	0	0	18	1.675	1.250	6.247	9.172

Table 4.4. Cruise ship information (Source: Ulaş, 2018)

	2012	2013	2014	2015	2016	2017
Voyage number	27	53	56	41	62	60
Passengers number	4055	35081	36455	24145	35872	38581

In his presentation, Celal Ulaş gave the ship information to be visited in 2018 as follows; Cruise (Ets Tour), Number of Flights: 34, Passenger Capacities: 750, Delphin, Number of Trips: 19, Passenger Capacities: 550, Aegean Odyssey, Number of Cruises: 1, Passenger Capacities: 400 (Table 4.4).

In the international press, Seatrade Journal ranked Çeşme port among the world's major ports. Insight journal has defined Çeşme as the most developed destination.

Çeşme Marina:

Çeşme Marina has a capacity of 100 boats on 400 land at sea of up to 60 meters. The marina is protected by a 300-meter wavebreaker (Çeşme City, 2019). There are also 379 m long 2.5 m deep berths. The marina with 4 berths is seen as a stopover point between Istanbul and the Southern Mediterranean and serves throughout the year (İzmir Development Agency, 2019).



Figure 4.12. Çeşme Marina (Source: Çeşme City, 2019)

It was compared with the information about the capacity of the marina officials and the types of boats, the use of the marina, the use of foreign boats and marina in the organized races. At least daily rental is carried out as per year. In the meeting held on 26.03.2019, the current situation is 28 and the number of foreign flagged yachts is 15. In addition, it was learned that the marina was used as a mooring point during the race periods and the races were near the lighthouse and around the islands.

Setur Çeşme Altinyunus Marina; It has the capacity to connect 60 boats on the sea and 180 boats on the land (İzmir Development Agency, 2019).



Figure 4.13. Setur Çeşme Altinyunus Marina (Source: Marine Tourism Association, 2019)

Port Alaçatı Marina:

Port Alaçatı Marina has a capacity of 80 boats in the sea and 80 boats in the sea, and can provide tying services for boats with a maximum depth of 35 meters and a depth of 4 meters. There are 3 floating piers within the marina, 75, 90 and 120 meters long.

In 2017 Tourism-Based Underwater Sportive Activity List published in Provincial Directorate of Culture and Tourism, there are 27 water above and 2 underwater sport tracks in Çeşme.



Figure 4.14. Port Alaçatı Marina (Source: Port Alaçatı Marina, 2019)

Sport Activities at Sea:

Sailing: Peninsula south of Cesme is one of Turkey's major yacht routes. The Çeşme-Kuşadası route is the area where the yacht tourism infrastructure develops most (Izmir Provincial Directorate of Culture and Tourism, 2019).

Diving Sports, where all kinds of sea sports can be done Cesme, diving is also a region that offers very nice facilities. Fener Island, Bed Island, Eşek Island, Ildırı Bay, Monem Wreck are places where dive sport is done (İzmir Development Agency, 2019).

During the meeting with the instructors at Çeşme Derin Doğa Diving Center, the dive types, the points where the dives were made, the access to the dive sites, the authorities to be informed about the dives and the difficulties encountered in the sea were discussed. The dive center is a member of the Çeşme Marine Association. It has been stated that scuba and free diving is done and Demircili Bay is used in free diving in shallow, open and deep water works. The maximum dive depth is 30 meters. The Coast Guard and the related Harbor Master will be notified when diving. At the end of

the interview, it was decided that the level of awareness on the sea law was low, the methods used in hunting were wrong or prohibited and the penalties for prohibition violations were not deterrent.

Wind Surf, Kitesurf and Sail; Ilıca has a deep sea and winds suitable for surfing. Pirlanta Cove, located in Çiftlikköy, just opposite Chios Island, has a rough sea because of its 4 winds. Therefore, the bay is preferred by professional surfers (İzmir Development Agency, 2019). It is also possible to surf on the Pirlanta Bay of Çeşme. Pirlanta Bay, located in Çiftlikköy, is located opposite Chios Island. The bay with good wind and hard waves is more preferred by professionals. This bay, famous for its wind and waves, has an ideal geographical structure for kitesurfing. It is shallow and covered with sand only for 250 meters of the sea. It is observed that this sport is preferred in Çeşme in April-November. Yumru Bay of Alaçatı; geographic location, wind, shallow structure is suitable for kitesurf. The area in question is; World, Europe and Turkey Wind - Surf Championship and is home to numerous international organizations. These areas are not sensitive to wooden scaffolding (İzmir Development Agency, 2019).

There are 15 windsurfing, 16 kitesurfing, 18 underwater, 2 sailing, 33 water recreational activities and a total of 83 tourism-oriented sports activities center where kiteboard and windsurf training areas and infrastructure standards have been announced (Provincial Directorate of Culture and Tourism, 2018).

Recreational sports (jet ski, banana, water ski, canoe, sea bike etc.); 150 m long and 15 m wide buoys are placed on the sea for the entrance of the materials. There are clear buoys and a dangerous and prohibited sign is placed on the side of the corridor (Provincial Directorate of Culture and Tourism, 2018).

Non-Sportive Marine Tourism Activities:

Cruise Tourism: According to data received from Çeşme Ulusoy International Port Operation, the port was frequented by 27 cruise ships in 2012 and 27 cruise ships in 2019. Cruise Tourism Types are divided into four types:

- Çağdaş cruise ship; 3.000 passengers +, Min 200\$/night, full pension, Carnival Royal Caribbean, NCL.
- Seçkin cruise ship; smaller ships, 250\$/night, full pension, Celebrity Cruises, Holland American Lines, MSC ,Costa.

- Luxury cruise ship; small ships, for 250-400 people , all-inclusive system is applied, 550\$/night, Seabourn ,Silver Sea , Cunard, Crystal
- Private cruise ship; Max for 150 people, sailboat, min. 800\$/night, all-inclusive system is applied, Windstar Cruises, Disney Cruise Lines

Daily Boat, Gulet, Blue Tour; Daily touristic activities, also known as daily boat tours, are a rapidly growing trend of recent years and are less costly compared to yacht tourism. (Berna Doğan presentation) The 2018 İMEAK DTO İzmir Branch, which is taken from the Chamber of Shipping, is provided below and the Summary of Excursion Charts (31.12.2018) is given below. Boat Names are also Çeşme 8, Çeşme / Dalyanköy 5, Çeşme / Ilıca 1 and Çeşme / Ildırı 8.

Table 4.5. Çeşme excursion touristic activities (Source: Chamber of Maritime Commerce, 2018)

Area	Ship Type	Average Size	Passenger Capacity	Sefer Location	Travel Time
Çeşme	tour	27-36 m	160-309	Çeşme Gulf	6 – 8 hours
Dalyanköy	tour	16-22 m	60-80	Çeşme Gulf	6 – 8 hours
Ilıca	tour	22 m	80	Çeşme Gulf	6 – 8 hours
Ildırı	tour	14-16 m	15-25	Çeşme Gulf	6 – 8 hours

Izmir Provincial Directorate of Culture and Tourism published 2017 Maritime Tourism Vehicle Operation Certificated Day Boat list in Cesme and Cesme number of boats serving 22 boats total 1641, Ildır capacity of the boats serving total 468, serving Seferihisar the total capacity of the boats is 405.

In addition to the Eşek Island, Jandarma Bay and Mavi Koy are also on the route (İzmir Development Agency, 2019). In some resorts, schooners organize blue tours. There are also rentable sailboats, catamarans, motor yachts or mega yachts (İzmir Development Agency, 2019). Islands; data related to islands have been reached from internet sources.

Fener Island, affording a depth of up to 15-18 meters, is an ideal area for diving. There are two diving points around the island. Both dives are usually used for second dives due to their not-too-deep bottom structure. The depths are 18 meters. In the island region where all kinds of sponges and corals are found, small flocks such as black bream and porgy are observed. There are several old seal caves where seals can be seen (Izmir Provincial Directorate of Culture and Tourism, 2019).

Bed Island: The depth reaches up to 40 meters and has a cave located at a depth of about 8-10 meters. It is usually preferred for the last dive of the day. There are two cave

entrances to the west of the island and the area is covered by sponges (Izmir Provincial Directorate of Culture and Tourism, 2019).

Eşek Island: Although there are many diving points around, cleft rock point is the most attractive focus of the island. The depth of the island reaches up to 50-60 meters. The eastern wall, starting from 20 meters upwards and reaching the bottom up to 40 meters, is the attraction point for the divers. The island serves purely touristic purposes and it is not possible to stay overnight as it is within the scope of National Parks (Izmir Provincial Directorate of Culture and Tourism, 2019).

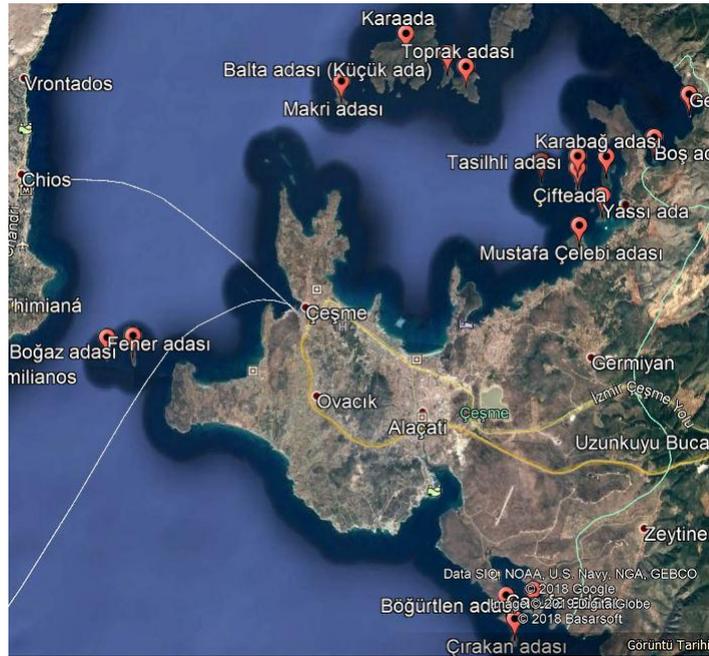


Figure 4.15. Çeşme Islands (Source: Google earth pro, 2019)

Noname Island: The name of the island of Makri overlooking the south Dalyanköy. It is possible to see plenty of sea-bream and black bream in this area with a depth of 15 meters. (İzmir Development Agency, 2019).

Ildırı Fener Island: Fener Island is an island very close to the cave reefs. The reef is full of caverns and depressions up to 35 - 40 meters. There are plenty of yellow tube sponges, red sponges and flower corals (İzmir Development Agency, 2019). Also, Makri Island is a touristic island in Çeşme.

Reefs:

Cleft Rock (Discrete Stone): It is a beautiful diving point with three different tracks called Discrete Stone. The name of the dive takes its name from the large rock that is separated by a meter from the land. The section, called 42 Flight Wall, ranges from 35 meters to 42 meters. There is a second wall extending from the shore, starting from 18

meters to 26 meters. It is a region where lobster and insects are very abundant (İzmir Development Agency, 2019).

Belly Stone: It is a reef that is spread over a wide area in the Mercan Strait of Eşek Island. The wall extends from 16 meters to 55 meters. At this point it is possible to see fish such as leer fish, dentex and barracuda. For dive, the current force is a point to pay attention to (İzmir Development Agency, 2019).

Patlak Stone: It is a reef that makes a half-meter overflow from the south end of the island to Dalyanköy towards the water. Since it is in open water, diving cannot be performed in all weather conditions. It has a bottom structure consisting of a wall extending up to 16 m and rock pieces. At this point, fish, such as bream, groupage, grouper, cannabis can be observed (İzmir Development Agency, 2019).

Barracüda Stones: This diving point, which is located very close to the Makri Islands, has a beautiful bottom structure starting from 10 meters to 50 meters. After reaching the 12-meter ground, the dive starts from east and then follows a circular course (İzmir Development Agency, 2019).

88 Stones: This point is located in the south of Eşek Island and is especially preferred in windy weather. The depth of the rock, extending to a depth of 43 meters, starts at 20 meters. There are many Roman amphorae around 30 meters. Among the amphoras, the chances of seeing eels are high. In this region, they are also found in herds. Lobsters, though not abundant, are among the organisms of this region. The deeper parts of the dive are suitable for advanced divers - and the more shallow southern parts are suitable for beginners (İzmir Development Agency, 2019).

Monem Shipwreck: It was sunk at a depth of 18 meters due to storm at the fountain. Since 2004, it has been the reproduction area of the fish by hosting various fish species. In addition, underwater diving, which is one of the kinds of sea tourism, is declared underwater diving and serves to divers and underwater photographers (Izmir Provincial Directorate of Culture and Tourism, 2019).

Ildırı Cave Reef: It was opened to diving in 2004. On the west facing side of the reef, a wall extending from the south to the north is about 70 meters long. The wall extends from 12 meters to 35 meters and there are three caves connected at 21 meters. There are two chimneys that reach 12 meters deep from these caves. The reef has very rich fish species (İzmir Development Agency, 2019). In addition Key Biodiversity Areas;

Çeşme West Cape; The conservation status is a natural protected area of 3465 hectares.

Key Biodiversity Areas (KBA) is located on the southwestern tip of the Çeşme Peninsula and the major part is the marine ecosystem. Within the boundaries of the area are the Boğaz and the Fener Islands. Most of the KBA is the sea and coastal area. Tourism effect is high in the area. The number of Mediterranean monk seals (*Monachus monachus*) in the world is important. One of the biggest factors threatening the conservation of natural habitats is the development of secondary housing. Another is to reduce the degree of protection of conservation boards in the protected areas. Apart from these factors, day-to-day use, boat trips around the island and sporty dives can be a threat. (Nature Association, 2006).



Figure 4.16. Çeşme Natural Site (Source: Nature Association, 2006)



Figure 4.17. Alaçatı Natural Site (Source: Nature Association, 2006)

Alaçatı; The conservation status is a natural site area of 56759 hectares. The Alaçatı KBA consists of the southern half of the Karaburun and Çeşme peninsula extension in

the west of Izmir. The area is limited to the Aegean Sea and the Çeşme district in the west, Uzunkuyu to the east and Urla district to the east. In the southern part, the highest point of the area is the Kiran Mountain. In the western part of the coast there are islets with an important breeding ground for sea birds off the Mersin Bay. These small islands are important for sea gulls such as island gulls and crested cormorants (Nature Association, 2006).

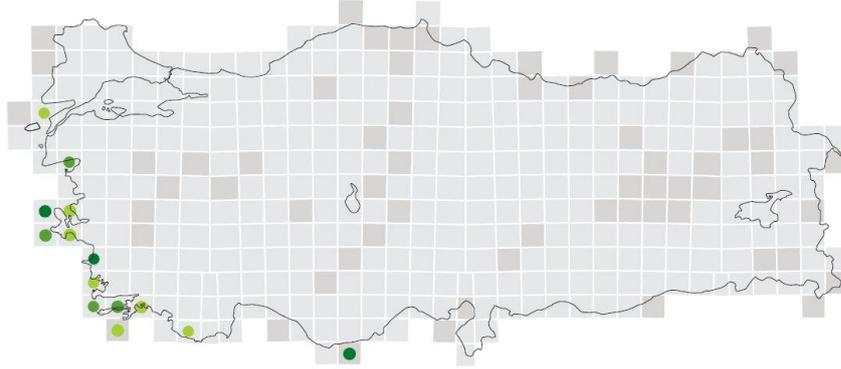


Figure 4.18. Island Gull in İzmir (Source: WWF-Türkiye, 2019)

The crested cormorant (*Phalacrocorax aristotelis*) nesting in the steep cliffs on the sea shores, reproduces in colonies and shows a point distribution (WWF-Türkiye, 2019).

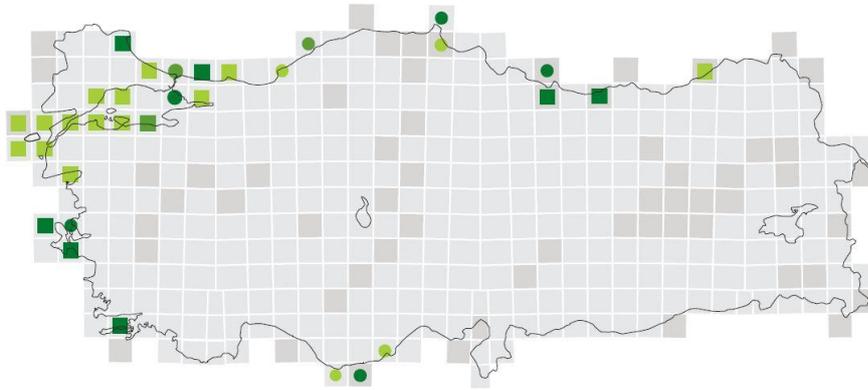


Figure 4.19. Crested Cormorant in İzmir (Source: WWF-Türkiye, 2019)

The coasts extending from the east of Alaçatı Estuary to Sığacık are one of the priority areas for the protection of the Mediterranean monk seal. Important human activities affecting the sea in the area are tourism and fishery. There are fish farms in Mersin Bay. In addition, Alaçatı Estuary is used for surfing competitions (Nature Association, 2006).

The main threats on the area are large infrastructure constructions, unplanned construction, tourism and secondary housing purposes, wetland filling works and

hunting. Another is to reduce the degree of protection of conservation boards in the protected areas. The region's great potential in terms of various tourism activities can become a greater threat to biodiversity if the necessary measures are not taken (Nature Association, 2006).

4.2.2. Karaburun

Karaburun's population is 10.603 (TUIK, 2019). Approximate measurement of resolution is approximately 450km² (Akyurt, 2008). Karaburun's economy is based on viticulture and banking sector.

Karaburun, which is located in Izmir Metropolitan Municipality's peninsula İzmir, is ideal for water sports and diving areas (District Governorate of Karaburun, 2019). Karaburun is a preferred town for relaxation with its clean sea and beaches. There are four blue-flag beaches in the center of Karaburun. It also has the beaches of Esendere, Saipalti, Igdealti, Buyukkent, Dolungaz, Yildizkent, Akcakilise, Yeniliman and Kumbuku. Karaburun, which has the cleanest sea of the environment because of its open sea view, has important potentials in fishing and diving tourism (Izmir Provincial Directorate of Culture and Tourism, 2019).

Coastal Usage Information:

There are no port structures in Karaburun. It is used as a fishing shelter. There are 4 underwater sports courses in Karaburun in 2017. Underwater and Water Sport Activities List are published in Provincial Directorate of Culture and Tourism. The most important sport tourism in Karaburun is diving. Diving is also carried out in the reef areas and around the islands. Islands - in Karaburun are Büyük Island or the Owner Island, Küçük Island, Black Island, Raks Islands, Toprak Island, Üç Islands (Figure 4.20).

Reefs:

House Stone: It is a region with a maximum depth of 12-13 meters, a place for beginners to gain experience (İzmir Development Agency, 2019).

Old seal nest: The underwater exhibition of rocks in the area of 30 meters in depth is worth seeing (İzmir Development Agency, 2019).

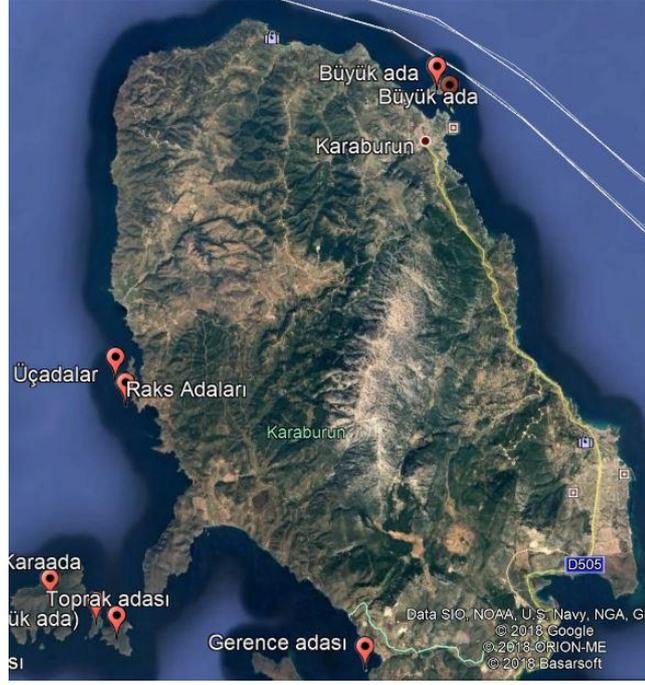


Figure 4.20. Karaburun Islands (Source: Google earth pro, 2019)

Küçükada area: It is a region where you can dive in every weather condition, enter the well and reach the depth of 20-25 meters (İzmir Development Agency, 2019).

Küçükada West Cape: This area with a depth of 8 meters to 12 meters is an interesting area for photographers (İzmir Development Agency, 2019).

Small reef: Dive between 5 meters and 25 meters in the area which does not allow diving in all weather conditions (İzmir Development Agency, 2019).

There are also artificial reef works in this area of artificial reef. There are C-47 aircraft wreck in Mordoğan. The '9 Eylül' and 'Alaybey' ferries, built in the 1970s in Izmir, carried passengers in the Izmir Bay for nearly forty years. The steamships that completed their economic life in 2012 were allocated to Karaburun Municipality and soaked in order to contribute to the marine biodiversity and tourism (Underwater Sports Club Journal, 2019).

Key Biodiversity Areas:

Karaburun and Ildır Bay Islands; The conservation status is the natural protected area, the archaeological site and is 87274 hectares.

Located within the borders of İzmir province, KBA is a peninsula on the west coast of İzmir Bay, covered with steep rocks in the south-north direction. Ildır Bay Islands located between Çeşme Cape and Karaburun are located within the KBA (Nature Association, 2006).



Figure 4.21. Karaburun and Ildır Bay Islands important natural area (Source: (Nature Association, 2006)

The whole of the islands in the area where human impact is not so much yet, and the last remaining shores, which are untouched by human hands, are important for the presence of birds and seabirds. The SNA has the island's wild and small kestrel as well as predators such as island gull and crested cormorant. rare sea birds breed. Important human activities affecting the sea in the area are fishing. Coastal fishing is common in Karaburun, Mordogan and Balıklıova. Lifting technique is widespread in the area and about 90 sealeries are active in the whole peninsula. Due to tourism, the population increases approximately five times during the summer period (Nature Association, 2006).

The most important threat in the area is coastal construction for tourism. Investors' pressures and initiatives to reduce the degree of primary sites that do not allow for building are increasing. Due to human activities in the SNA, the Mediterranean monk seal is disturbed significantly. Puppies are entangled in the fishing nets and cause this species to die. Increasing aquaculture, increased sea traffic and human pressure, as well as a decrease in fish stocks are causing a decrease.

The Karaburun Peninsula is an island that extends to the sea and separates from the mainland. It is a very important and special bio-reserve area which is enriched with its geomorphological features. In the current situation is the largest protected area on the Aegean coast. Indeed, Nature Society is a comprehensive study product "Important Nature Areas in Turkey" in the publication, taking into consideration some ecological criteria

were diagnosis is one of the nationwide total of 305 important natural areas (General Directorate of Nature Conservation and National Parks, 2009).

Special Species:

The most important species that survive on the island and surrounding 29 virgin coasts and emphasize biodiversity are the Mediterranean monk seal (*Monachus monachus*), the sea grass (*Posidonia oceanica*), the small kestrel, the black-born, the island, Grouper, Moonfish, Bottlenose dolphin's tour (*Tursiops truncatus*). In addition to these ecological values, many other marine and terrestrial species with economic value live in the area and play an important role in the socio-economic structure of the region (General Directorate of Nature Conservation and National Parks, 2009).

During the meeting with Researchers of the Mediterranean Monk Seal Research Society, information was taken on the use of Mediterranean monk seals and marine habitats, sea meadows, seagulls and seaside areas facing Karaburun. The evaluation of the interview was based on the consideration of floating piers, bungalows or daily boat alternatives against the threat of concretization, strengthening the legislation, revising the references in the big island and small island drawings, establishing a security limit in the sea, elimination of authority confusion.

Mediterranean Seals (*Monachus monachus*) is one of the 12 rarest mammals in the world. Mediterranean monk seals inhabited areas by the 1000s from the coast of West Africa to Senegal from the Mediterranean coast and the eastern Atlantic coast until the 20th century. However, the distribution of the species has decreased and its population has declined due to overfishing, loss of habitats and disruption of marine ecosystem (Izmir Provincial Directorate of Culture and Tourism, 2019).

The work area of the Mediterranean monk seal protection and monitoring project initiated by the Ministry of Environment and Forestry in 2009 has been the coast of the Karaburun Peninsula, which is located on the north of the red line (Figure 4.22) (General Directorate of Nature Conservation and National Parks, 2009).

The Mediterranean monk seal is a marine mammal. Typical habitat features of the Mediterranean monk seals on our shores and the Mediterranean can be defined as; "Having non-structured coastal caves and caverns, which are not easily accessible, or are not easily accessible to people, but are preferably reproductive and / or sheltering; quiet and deserted rocky beaches (General Directorate of Nature Conservation and National Parks, 2009).

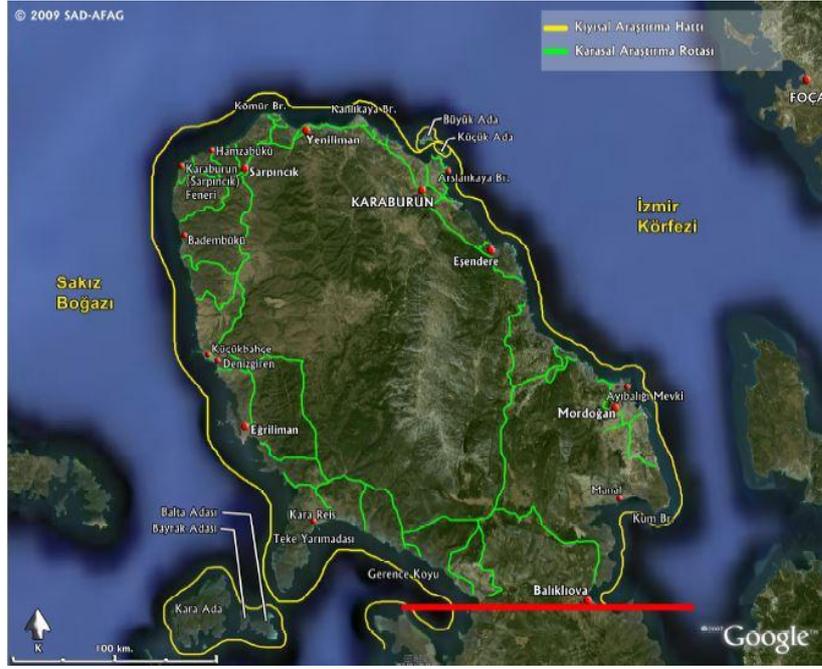


Figure 4.22. The study area of the Mediterranean monk seal protection and monitoring project (Source: General Directorate of Nature Conservation and National Parks, 2009)

On the Karaburun Peninsula there are a total of 13 caves and caverns suitable for housing. There are 3 suitable breeding caves on the coast of Karaburun Peninsula. These; Mordoğan is the main cave of Ayıbalığı, Hamzabükü cave and Sarpıncık cave (General Directorate of Nature Conservation and National Parks, 2009).

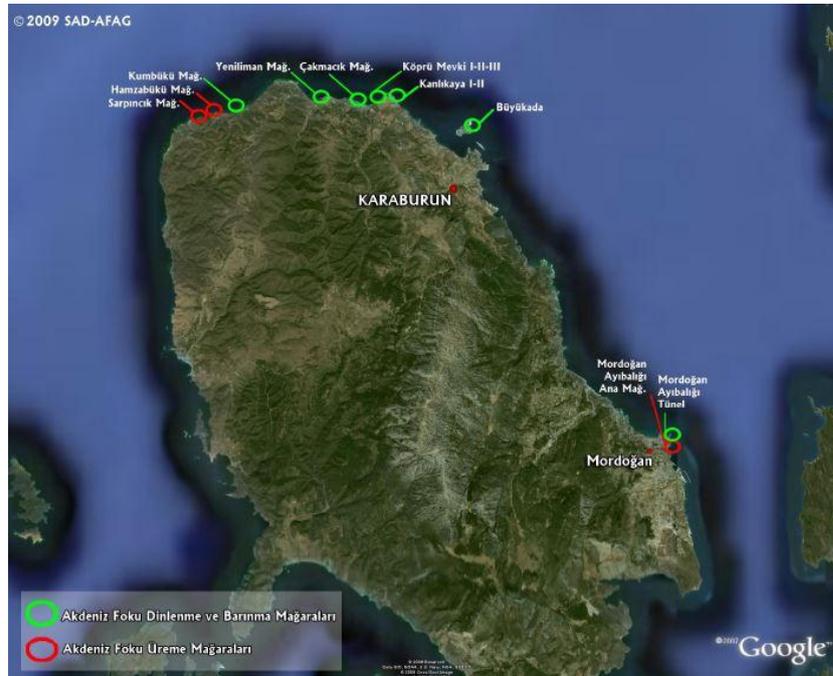


Figure 4.23. Seals and cavities of the Karaburun Peninsula. (Source: General Directorate of Nature Conservation and National Parks, 2009)

At least 16 different Mediterranean monk seals have been seen in Karaburun Peninsula since 1999 and this number can be up to 20. In this case, the total number of Mediterranean monk seals (up to now) in the region is at least 16 (General Directorate of Nature Conservation and National Parks, 2009).



Figure 4.24. Karaburun Büyükada is a new adult male Mediterranean monk seal for Koca Yusuf region, which was discovered in 2004 on the east coast. January 2005. Photography: SAD-AFAG C.O.Kırac (Source: General Directorate of Nature Conservation and National Parks, 2009).

In the Karaburun Peninsula, threats against the Mediterranean monk seals and their legislatures can be summarized under four main headings;

- Disturbance of the coastal habitats: the construction of the coasts and the development of natural coastal areas.
- Fisheries of over / underwater products: Trawl and purse seizure by entering the sea areas of both coastal fishermen and seals to reduce their nutrients.
- Drowning of seals on the nets of the coastal fishermen
- Human disturbance given to the seals in their caves (General Directorate of Nature Conservation and National Parks, 2009)

On February 1, 2017, it was confirmed that this rare species lived in Saipaltı (Underwater Research Association, 2019). The National Legislation, since the Land Hunting Law no. 4915 and the Central Hunting Commission, since 1977 and according to the Law on Fisheries Hunting Law no. and its killing is strictly forbidden, and in the event that this happens, criminal fines are envisaged. It is forbidden to enter, branch and use the light cans to ensure that the seals are protected in their habitat, as it was adopted in 1991 in the Communiqué on Fisheries (formerly known as the Circulars on Aquaculture) (Kırac et. Al, 2004).

4.2.3. Urla

The population of Urla is 66,360 (TUIK, 2019). Industrial facilities in the province are in the form of small enterprises. There is no big industrial enterprise. A lime plant, seafood processing plant, one egg pasteurization plant, 15 olive oil plant, 4 flour mills, 3 dairy farms, 1 meat product processing plant, 1 slaughterhouse are the main facilities.

There are five Aquaculture Cooperatives, five Agricultural Development Cooperatives, one Agricultural Credit Cooperative and one irrigation cooperative. 2400 hectares of field area, 1638 hectares of vegetable area, 150 hectares of vineyard area, 5485 hectares of olive field 84.2 hectares of ornamental plants area, 66.9 hectares of fruit field, 74.9 hectares of citrus area, 2 hectares of poplar field is the current production area. The amount of free land suitable for agriculture is 1663 hectares and fallow area is 140 hectares. The total agricultural area is 11.704 hectares. Agricultural areas in our district have become very small by inheritance and sales. For this reason, the tendency towards greenhouse cultivation has increased (TUIK, 2019).

Coastal Usage Information:

In 2017 Tourism-Based Underwater Sportive Activity List published in the Provincial Directorate of Culture and Tourism, there are 6 water sports courses in Urla. Sport Tourism Activities; Wind Surfing, Kitesurfing and Sailing. Göztepe Sports Club Sailing Branch; The branch, which operates in the Göztepe headquarters, in Levent Marina and Çeşme Yıldız Cape, has been operating in Urla - Torasan since 2014. The facilities in Urla - Torasan are one of the largest and most comprehensive facilities in Izmir. At the same time, there are four boat marinas, the width of which is enough to accommodate more than 100 boats at a time.

Çeşmealtı Wind Surf and Sailing Club; It is managed by professional athletes in Urla. During the meeting with the president of the club and at the same time with the coach, the types of sports performed, the marine area used for each type of sport, activities and mobility carried out throughout the year, where the yacht is connected and the difficulties encountered in the sea were discussed. There are sail-board installation, dismantling, washing, storage and repair areas, two rescue and training boats and floating pier in Çeşmealtı (İzmir Development Agency, 2019).

The eight islands, known as the Flower Islands; Hekim Island, Çiçek Island, Karantina Island, Akça Island, Uzun Ada, Yassıca Island, Pınarlı Island, Alman Island. Long Island and Hekim Island are 1st degree military zones and access to islands is prohibited. Dive tourism is available on the Hekim island and on the Alman island. Akça Island has a youth camp opened by the municipality (Nature Association, 2006).

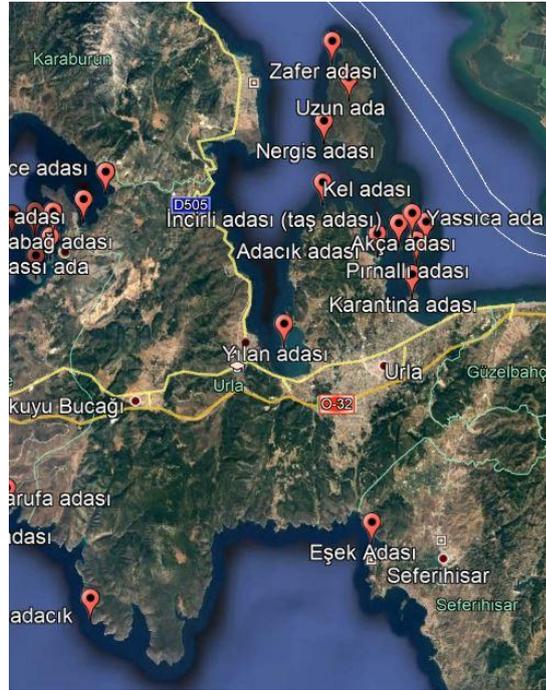


Figure 4.25. Urla Islands (Source: Google earth pro, 2019)

Reefs; the first scientific artificial reef project in Turkey began in 1991 in Izmir Bay (Lök and Gül, 2005). The study was conducted Izmir on the northeastern coast of Hekim Island in the Middle Gulf. The figure also illustrates the work area.

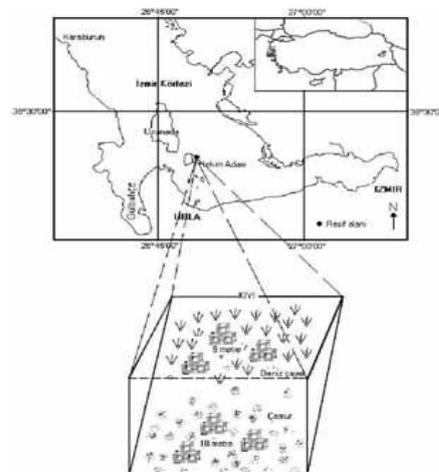


Figure 4.26. The first scientific artificial reef project (Source: Lök and Gül, 2005)

KBAs; Urla; It has an area of 8718 hectares without protection status. The KBA consists of eight islands located in the south of the Gulf of Izmir, between the north of the province of Urla and the Gediz Delta. These islands are Hekim Island, Alman Island, Pinar Island, Akca Island, Çiçek Island, Karantina Island, Uzun Island and Yassica Island. The longest of them is the Uzun island which has the military settlement areas. Uzun Ada and Hekim Islands are military regions and one is forbidden to access these islands. Most of the area consists of marine ecosystem. The area provides the KBA criteria due to the large population of silver gulls Although it does not meet the KBA criteria, long owl breeds in the long island. The KBA is also important for Mediterranean monk seals endangered world-wide. Some of the islands are uninhabited. Most of the area is used for day tourism. Diving on Hekim Island and Alman Island is available. Akça Island has a youth camp opened by the Municipality. On the coast of the Çiçek island fish farms are located. Uzun Island and Hekim Island are used as a military area. The area is also important for sea fishing. Especially the domestic and industrial wastes left to Izmir Bay and the bilge waters left by the ships affect the whole area. The effects of the opened facilities on the area should be well studied (Nature Association, 2006).



Figure 4.27. Topographic map of the important islands of the Flower Islands (Source: (Nature Association, 2006)

4.3. Aquaculture and Fishing

17 of the 30 districts of Izmir are on the shore of the sea. In aquaculture, there are 69 sea 17 of the 30 districts of Izmir are on the coast. In aquaculture, there are 69 sea

enterprises, 5 inland water plants and 8 hatcheries in Izmir. A total of 82 enterprises have also 35 traditionally collapsed slopes. In Turkey, 16% of total marine fish farming operations are in Izmir. As of 2018, the number of fishing vessels in Izmir is 1701. In addition, there are 6 auxiliary vessels operating in sea and 11 aquaculture facility ships. There are 44 cooperatives in Izmir (Özkan, 2018).

There are 4 commercial fishing industry plants in Turkey; sea fishing, aquaculture, inland water fishing and other marine products. The pier, port and other terrestrial coastal structures where the necessary services will be delivered to the fish farms and where the support will be provided, and the lack of planning related to it affect the aquaculture. (Sinan Kızıltan, 2018, İMEAK Chamber of Maritime Commerce Izmir Branch Journal. Number 19.) There is also a need for several warehouses for fish farms in the coastal areas for loading and unloading of boats (Çakan, 2018).

The aquaculture sector is an important source of income for our country and our province. 105 93% of the fish production in the seas of our country is carried out in Aegean Region and 22% in Izmir. In Izmir province, 31,244 tons of aquaculture products, of which 8,235 tons were hunting and 23,009 tons of culture, were produced in 2009 and a total production value of 313,641,013 TL was created (Boran, 2018).

Table 4.6. İzmir Province Aquaculture Production, Hunting and Aquaculture (Source: TÜİK)

		Production amount (ton)	%	Production value (TL)	%
Hunting	inland water	32	0,09	205.305	0,06
	Sea	8.203	23,07	57.078.745	19,19
	total	8.235	23,16	57.284.050	18,27
Aquaculture	inland water	75	0,21	444.000	0,14
	Sea	22.934	64,7	255.912.963	79,9
	total	23.009	74,1	256.356.963	81,59
General total		31.244	100	313.641.013	100

In 2017, 8,590 tons of hunting and 61,782 tons of aquaculture were produced and 70,372 tons of aquaculture products were produced and a total production value of 1,18 billion TL was obtained. Izmir ranks second in terms of registered fishing boat with a share of 11.9%. 83.490 tons of aquaculture production per year is in 2nd place in terms of project capacity. 14% of Turkey's seafood exports are met by İzmir. Izmir ranks second with exports of 337 million USD (Boran, 2018).

Table 4.7. İzmir Province Aquaculture Production Amount (ton) (Source: Boran, 2018)

	2010	2011	2012	2013	2014	2015	2016	2017
Marine fish	8,106	4,816	1,135	1,156	3,119	1,871	3,651	8,145
Other marine fish	1,232	0,781	0,95	0,155	0,194	0,146	0,199	0,430
Inland water fish	0,031	0,013	0	0	0	0	0,007	0,015
Aquaculturing	23,300	21,847	26,838	35,156	41,051	47,713	53,568	61,782
	32,669	27,457	28,068	36,467	44,364	49,731	57,425	70,372

The lack of hunting quota in the fisheries sector (Cihangir, 2018), illegal hunting is one of the major problems. Aegean University Fisheries Faculty interviewed academics on artificial reef studies, biodiversity, maritime supervision and safety, and sustainable studies. At the end of the interview, it was determined that the underestimation and the misuse of the misuse, lack of island management, the problems in maritime management, the solution for sustainability and the underwater national park reserve area could be considered.

With the establishment of sustainable fisheries and aquaculture, green ports, green ships and ecotourism activities, the transition from the traditional marine sectors to the blue sectors will accelerate. (Ebarvia, 2016, p. 26).

4.3.1. Çeşme

In the Blue Growth Workshop held in Çeşme in 2018, Tozman stated in his speech that a total of 51 aquaculture facilities in 27 peninsular farms in the peninsula region had a yearly production of 52,890 tonnes / year aquaculture, stating that Çalış in the northern part of the Çeşme peninsula, Karaburun Küçükbahçe Village, Gerence Bay in the Gulf of Ildır, 39 aquaculture plant in the potential areas, tuna, sea bream, sea bass, sinarit, granyous species, located in the southern part of the Çeşme peninsula, Mersin Bay, Zeytinler Village, Demirciler Village and Gulf of Sığacık twelve of aquaculture facilities in the tuna, sea bream, sea bass species are produced.

Fishing Coastal Structures; In 2017 data obtained from the website of the General Directorate of Maritime and Inland Water Resources, there are 7 facilities registered to Çeşme Harbor Master. These facilities are a fishing shelter and do not have a towing or mooring place (Table 4.8). In addition fisheries activities:

- Hunting; a Diving Instructor in Çeşme mentions that the sea meadows are between 5 meters and 30 meters from the shore, but fishing activities are hardly seen even at a distance of 40 meters due to their illegal course.

Table 4.8. Çeşme Coastal Structure

	Fisher shelter	Location	Accommodation
Alaçatı Fisher shelter	X		
Çeşme Fisher shelter	X		
Çiftlikköy Fisher shelter	X		
Dalyanköy Fisher shelter	X		
Ildır Fisher shelter	X		
Ilıca Fisher shelter	X		

- Aquaculture; in Dalyanköy, an auction is held for six months; In the remaining time the fish is sent to the Güzelbahçe. There are 63 extension and 13 boats connected to the cooperative, and islands, Eğriliman, Gerence Bay and fish hunting around Ildır are sold through a cooperative. There is also cold storage and transportation within the cooperative. The amount of fish marketed in the region reaches about 70 tons per year. 35% of this amount is cup, 22% is octopus-calamari, 21% is marite and 8% is bean-tabby. Other species are around 14% (Hoşsucu et. Al, 2001).



Figure 4.28. Çeşme Aquacultural Areas (Source: Google earth Pro, 2019)

In the figure above, the locations of fish farms in the 2015 image taken from google earth are shown. There are 3 fish farms in Çeşme Bay, 3 in Ildır Bay and 7 fish farms in Gerence Bay, Aquaculture Plants (Republic Of Turkey Ministry Of Agriculture And Forestry, Fisheires and Aquaculture, 2019). According to the data obtained from the

year 2019 in Cesme district, there are 11 enterprises operating with the network cage method.

4.3.2. Karaburun

Fishing Coastal Structures; In 2017 data obtained from the website of the General Directorate of Maritime and Inland Regulation, there are 7 facilities located in Karaburun, which are registered to Izmir Harbor Master. These facilities are a fishing shelter and do not have a tow bar or mooring place (Table 4.9).

Fisheries Activities:

- Hunting; there are wide prohibitions in hunting areas in the region. Hunting is restricted due to the western part of the hinterland, Uzun Island military field, Hekim Island and protected area within the scope of the protected area. The site is up to 7-8 miles (Temiztepe, 2018).

Table 4.9. Karaburun Coastal Structure

	Fisher shelter	Location	Accommodation
Ambarseki (Esendere) Fisher shelter	X		
Karaburun Fisher shelter	X		
Yeniliman Fisher shelter	X		
Kaynarpinar Fisher shelter	X		
Mordoğan I Fisher shelter	X		
Mordoğan II Fisher shelter	X		
Saipköy Fisher shelter	X		

- Aquaculture; Mordoğan, especially in the summer due to tourism, consumption of seafood increased in this season. Therefore, the auction is in the summer. Fish is sent to Güzelbahçe. There are 20 extensions and 7 trata-alamana boats attached to the cooperative. In Mordoğan, approximately 7 tons of production was marketed in the region. While 42% of them were calamari, they produced a percentage of 26% mercury-red mullet. The proportion of other species is 32%.

Karaburun has only 10 extension network boats in Karaburun, where there is regional consumption. There are 15 sedimentation strata between 17 amateur fishing

boats and Egriliman-Karaburun. Six tonnes of production constitutes a large part of the mullet (83%), while the production of red beans is around 1 tonne (17%). New Port is located in Karaburun, which is very close to the new port, especially in the weekend consumption is increasing. There are 2 trata and 10 red mullet extension boats connected to the cooperative. Troll is sent to fishwater from the exit point of the New Harbor. The production in the region was approximately 52 tons. 48% of this consists of sardines, 38% cups and 9% mullets. The proportion of other species is 5% (Hoşsucu et. Al, 2001).

There are 16 fish farms around Karaburun and Adalar. Ege University Fisheries Faculty academics conducted interviews on fish farms and artificial reef studies. As a result, it was revealed that there were problems in order fields and network throwing.

In the figure above, the locations of the fish farms of Karaburun in the 2015 image taken from google earth are shown. According to the data obtained from Aquaculture Plants (Republic Of Turkey Ministry Of Agriculture And Forestry, Fisheires and Aquaculture, 2019), there are 29 enterprises that produce by network lattice method in the year 2019 in Karaburun.



Figure 4.29. Karaburun Aquacultural Areas (Source: Google Earth Pro, 2019)

4.3.3. Urla

Fishing Coastal Structures; In 2017 data received from the website of the General Directorate of Maritime and Inland Legislation, there are 5 facilities located in Urla, which are registered to Izmir Harbor Master. Most of these facilities are fishing shelters and do not have a docking station. (Table 4.10)

Table 4.10. Urla Coastal Structure

	Fisher shelter	Location	Accommodation
Balıkliova Fisher shelter	X		
Çeşmealtı Fisher shelter	X		
Urla İskele Fisher shelter	X		
Urla Kalabak Accommodation			X
Özbek Fisher shelter	X		

In the meeting with officials of Çeşmealtı Cooperative, the subjects related to the activity of the members of the fishermen and the boat, the types of hunting and hunting areas, the places where the boats are connected and the difficulties in the sea were discussed.

Fisheries Activities:

- Hunting; the important auction point after Güzelbahçe is the Urla pier. In the port, there are 40 extension and 13 trata-barrels, 8 of which are located in Çeşmealtı. In Çeşmealtı, there is only a market in the summer. There is one small-scale cold room in Urla. The fish is sent to Güzelbahçe.

The amount of fish marketed in the vicinity of Urla was 63 tons as of 1999. 23% of it consisted of octopus-calamari, 12% of butts, 10% of sardines, 9% of beans-red mullet, 8% of mackerel, 5% of mullet; the proportion of other species is 33%. Özbek, Urla is the next auction point at 12.00. There are 30 extension and paragat boats attached to the cooperative. There is one cold storage room in the port and the fish is sent to Güzelbahçe especially in winter. All the fish in the region are consumed in the region. The amount of fish consumed in Özbek and consumed in the region was approximately 11 tons. 39% of this amount is octopus-calamari, 18% bean-red mullet, 10% mullet, 10% sardine and 10% cup. Others are around 13%. (Hoşsucu et. Al, 2001).

- Aquaculture; according to data from the 2015 image taken from Google earth, fish farms are not observed. However, according to the data of 2019 (Republic Of Turkey Ministry Of Agriculture And Forestry, Fisheires and Aquaculture, 2019), there are 8 enterprises in the district of Urla that produce by network cage method.

4.4. Summary

In the 2017 Bulgaria's Burgas study, published on the European Union MSP Platform, to follow the land-sea interactions, with a special focus on biodiversity, on land-sea interactions; identify the impact of land infrastructure on wetlands and marine areas; a table was created to find out what interactions, conflicts and impacts between the uses, sectors and interests of both terrestrial and maritime. The following table is also adapted from this case study. The land use situation within the peninsula is summarized in this section. The land use status and interaction matrix between the land-sea and sea-coastal areas of the peninsula are given in the table below. Green indicates interaction without mismatch, yellow indicates interaction with weak conflicts, red indicates interaction with strong conflicts.

In summary, the use of marine spatial and coastal areas necessarily interacts positively or negatively with each other. It is observed that tourism activities have positive interactions in marine and land environments, while protected areas are the areas with the highest conflict.

Table 4.11. Land-sea interactions matrix for İzmir Peninsula study area. Abbreviations: interaction , weak conflicts  and strong conflicts 

Coastal Land Uses	Sea Spatial Uses													
	Yachting tourism	cruise tourism	Water sports (windsurfing, etc.)	Waste water discharges	Engine water sports	Diving	Underwater cultural heritage	Protected areas	Military areas	Fish Farming	Coastal Fishing	Research monitoring stations	Open Sea Fishing	Shipping Routes
Beaches														
Tourism activities														
Residential areas														
Industrial areas														
Port terrestrial areas														
Waste water discharges														
Roads and railways														
Pipelines														
Coastal protection/nourishment														
Cultural historical sites and landscape														

CHAPTER 5

CONCLUSION

With the data obtained from the interviews, researches and observations, the land use map of the marine area was tried to be created within the scope of the Izmir peninsula. The activities in the peninsula are shown on a 1 / 500.000 scaled map. As it is shown in the map legend, the natural sites including Çeşme Cape, Alaçatı and Karaburun and the Gulf of Ildır, the areas where the Mediterranean monk seals, fish farms, water sports areas, non-diving areas, military forbidden zones, İzmir Harbor Master and Çeşme Harbor Master the authority limits are shown.

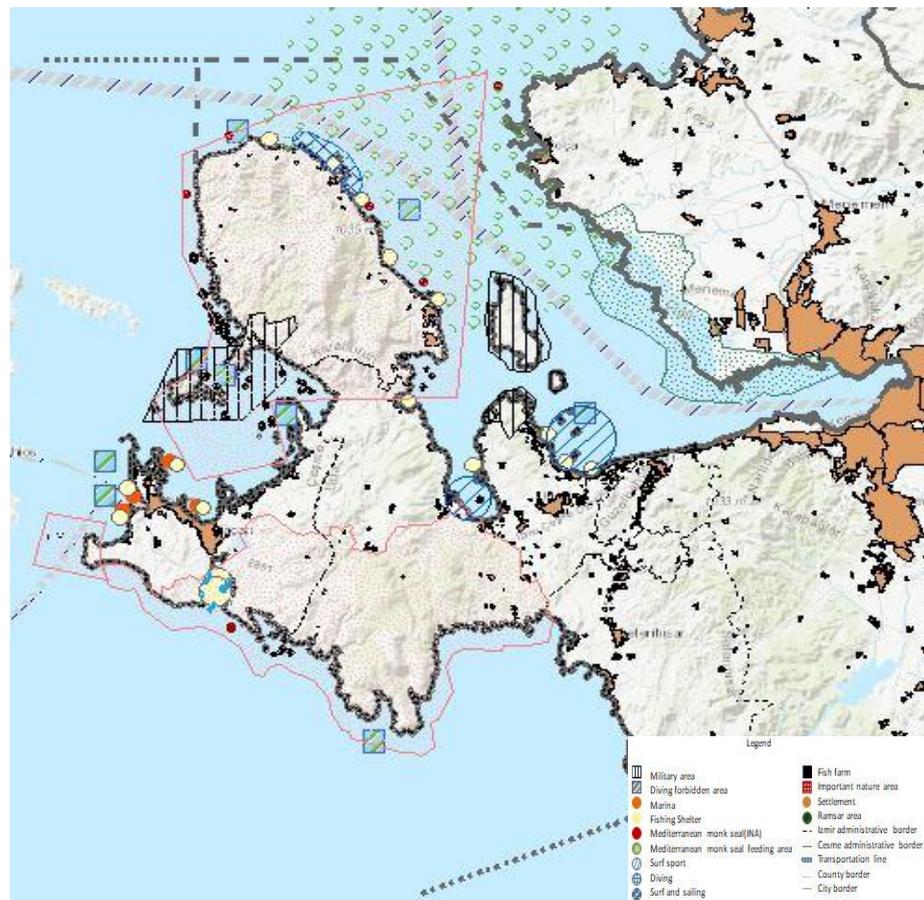


Figure 5.1. Marine Land Use Map in İzmir Peninsula

Interventions are observed by many sectors on marine areas. The diversity of maritime activities as well as many stakeholders have different implications. Coastal management of Izmir Bay is used for multi purposes and has difficulties in sustainability. To achieve this, there is a need for integrated, interdisciplinary and multi-sectoral spatial approach (Yücel-Gier, 2014). As can be seen from the map, different types of use must be managed together with the classifications that need to be created. Marine planning is needed to address the confusion of authority and use.

On March 15, 2019, with the Presidential decree published in the Official Gazette, some areas were identified as Karaburun and Ildır Gulf Special Environmental Protection Area and decided to be put into force in accordance with Article 9 of Environment Law No. 2872. It is stated in the annex to the decision that the area is investigated, monitored and protected, as well as taking, controlling, monitoring and controlling the measures related to the activities in the region belong to the Ministry of Environment and Urbanization.

Held in 2011, Turkey's Marine and Coastal Protected Areas System Strengthening Project, Sensitive Sea Areas Setting Workshop in the Final Report;

- Strengthening the internal structure and capacity needed by the responsible institutions for the more efficient management of existing coastal and marine areas and the establishment of new coastal and marine areas,
- Ensuring that the marine protection areas planning and management system allows for effective business planning, adequate cost effective management cost and income generation level,
- It is aimed to provide inter-agency coordination mechanism for the management and regulation of economic activities within the multi-purpose use of coastal and marine protected areas.

Existing protection zones in Turkey; national parks, wildlife development areas, wetlands, biosphere reserve areas. The main activities in these areas are listed as follows (Environment and Urban Ministry, 2011):

- Activities Based on Economic Activities and Natural Resources; fish farms, sea transport, sea tourism, coastal structures, commercial fishing, scientific and educational research, commercial research
- Recreational Activities; mooring, motorized and non-motorized water sports, swimming, scuba diving, public activities, military activities.

According to the quality of these activities in the zone; it is concluded that it should be regulated as freed, regulated, prohibited, authorized for permission, privileged activities (Environment and Urban Ministry, 2011).

Implication for Urban Planning; Principles of MSP are; ecosystem understanding, environmental imperative, area-based, development needs, sectoral integration and stakeholder involvement (Jay, 2010). Principles of Terrestrial Spatial Planning are; integration, consensus building, strategic governance, identity-building, differentiation (Tewdwr-Jones et al, 2010).

The study's focus is to create awareness on marine areas and to give information about the European approach in dealing with marine areas and to show that the seas should be considered together with land and coastal planning in Turkey.

This study was first referred to marine spatial planning to bring a new concept to Turkey's approach to planning. At the beginning of the thesis, one of the objectives given as a research question is that the legal framework covering the seas should be holistic, what is taking place in the areas of marine use and a holistic approach should be exhibited with the cooperation between institutions in the planning studies. Some of the objectives could not be achieved due to lack of access to data and time-based constraints. These deficiencies can be solved as follows; It can be explored how to involve the public and stakeholders in addressing sectoral problems in marine areas, and more detailed studies can be carried out on the lack of ownership in marine areas and how to best use them for the public interest. The diversity and mapping of the data can be considered not only the surface of the sea but also the depth.

This study, which is seen as a preliminary step in marine spatial planning, is open to interpretations developed with reference and requiring further research.

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APPENDIX A

INTERVIEW QUESTIONS

1. What are the details about the Mediterranean monk seal and its habitat?
2. What is the status of Sea Meadows?
3. Are island gulls still visible?
4. Does Karaburun need protection?
5. Are diving centers a member of the association?
6. What dive training is provided?
7. Where are the dives performed?
8. What are the challenges at sea?
9. Where are dive permits obtained?
10. How to get to the dive sites?
11. How many athletes are there?
12. Where is the floating dock, rescue and training boat located, where are your repair and storage areas?
13. What kind of activities are carried out for 12 months?
14. What is the marine area limit used for each branch?
15. Where is the sailing yacht tied?
16. What are the problems encountered at sea?
17. What is the number of registered boats and fishermen?
18. How many members are active?
19. What are the types of hunting?
20. What are the hunting grounds?
21. Where are the boats connected?
22. What are the problems at sea?
23. Are there artificial reef studies?
24. What is the status of biodiversity?
25. How is maritime control and security ensured?
26. Is there a study for boat wastewater?
27. What is the applicability of diving tourism and marine park projects?

28. Are there any developments related to Çeşme Blue Growth Workshop?
29. At which port does the cruise tourism need be met?
30. What is the status of daily boating?
31. What are the sail training areas?
32. How long have the clubs used the sea?
33. What is the seasonal usage intensity of marinas?
34. What is the proportion of foreign boats?
35. What is the relationship between the marina and the races?
36. What are the types of ships in the port?
37. What is the frequency of cruise ships?
38. Is detailed information available on fish farms?