



TITLE: RECREATIONAL FISHING TOURISM IN GREECE

AUTHOR'S NAME: STATHIS PANAGIOTIS

MSC IN SUSTAINABILITY AND QUALITY IN MARINE INDUSTRY

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SUPERVISING PROFESSOR: SAKELLARIADOU FANI

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## Abstract

The purpose of this dissertation is the research for the ideal way of applying Recreational Fishing Tourism in Greece, as a modern type of touristic activity that if developed properly it could offer multiple benefits. Due to its complexity multiple areas are studied. First, we will discuss about the fisheries in the Mediterranean, the existing fishery policy and the declining of the fish stocks. Proceeding, we will analyze the today's reality of fishing in Greece, the current situation of the Greek fishing fleet as well as the economic measurements accordingly. After that, there is an examination of tourism, the alternative forms of it and its contribution to the Greek economy. Following, Recreational Fishing Tourism is presented with its various characteristics and the existing legislations that the professionals of the sector need to comply with. Subsequently, we are introduced to the Sustainable Development and Blue Growth and their connection with the fishing sector. In order to get the needed results, two questionnaires were created for the tourists and the fishermen respectively. Finally, a discussion is made and suggestions are presented.

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## 1. Introduction

Recreational Fishing Tourism in Greece has big potential for success. It is a very beneficial and widespread activity in the European and in the global market. The development of this touristic service if done properly and has the support of the government could be rapid and bring multiple benefits. Some of them might be the attraction of many additional tourists, economic prosperity for the fishermen, the promotion of other services in addition to fishing tourism, younger people entering the profession of the fisherman, solving of fishery problems and familiarization of the fishermen with European fisheries instruments in which they should participate.

Greece is a suitable area for Recreational Fishing Tourism. There is a great tradition in the sea activities and in the fishing sector in general, while at the same time there are significant prospects for professional activity of fishermen into the field of fishing tourism. There is extra motivation for them as the economic benefits could be outstanding. In the context of this dissertation there is a study of the potential interest from the tourists into this activity, as well as the investigation of the work cycle that the fishermen who provide Recreational Fishing Tourism services have and how well their services align with the today's needs and expectations of the tourists.

The results are studied and the conclusions made brought many insights for the field, the perception from the Greek tourists towards it and the existing problems that the fishermen face. In addition to the above, suggestions are made for potential changes that could solve those issues both from the fishermen and the competent bodies in order to gain the maximum benefits.

In this dissertation with the title Recreational Fishing Tourism, the reader expands his knowledge into it and in many associated areas. Complexity exists and different fields are analyzed in order to gain an integrated view. Those are the fishing sector, the examination of the various economic measures, prerequisite legislations, tourism with the focus in alternative tourism and the need for a sustainable development. The above insights provide necessary moves that need to be made for the sustainable development of the sector.

## 2. Fisheries in the Mediterranean

### Introduction

Fishing is defined as the capture of fish and other aquatic organisms that live in the marine, lake or river ecosystems. There are methods and ways that are used for this purpose. From the dawn of time fishing was practiced in all around the globe and today it offers food, jobs, sports and entertainment.

#### 2.1. History of fishing

Man has characteristics that distinguish him from the rest of the animal kingdom, one of those is the ability to create and use tools and weapons to capture other living organisms. From the Paleolithic Age man could capture rhinos and mammoths. Fish were not excluded from his list.



Fishing has a history of over 90.000 years and is a very important activity for the survival of the human race. Until 1880 fishing depended to the human strength and the power of the wind, as a result it was limited near the shores or in some cases in very small parts of the lassi ecosystems. Fish stocks of the seas were protected and reserved until that time due to the above restriction.

In the 1880s sails were replaced by the locomotives. That changed radically the situation and more fisheries where captured. Fishing was extended to the high seas and deeper waters. The next years technology evolved in a fast pace and that enabled fishing vessels to increasingly move away from ports. New fishing grounds for exploitation were introduced. On top of that the use of hydraulic winches, new stronger nets that were constructed and other new technological tools resulted in the extension of the fishing activity to larger depths and expansion that is clearly driven by profit.

The increase of the fishing vessels, the improvement of their efficiency combined with the vast technological progress led to an increase in total world fishery production. Today it has reached 155 million tones in comparison to the 8 million tons in the decade of 1900.

Aquatic organisms are removed from the sea at a rate of 14 times higher than the other marine predators. The aquatic ecosystems face a super predator that is responsible for approximately 35% of the annual marine primary production. This has some negative impacts and as a result the amount of fishery tones have started to decline. Additionally, the equilibrium of the marine ecosystem is affected and thus the ability to provide humans with various services such as nutrition, economic, aesthetic and cultural services. (Stergiou, 2015)

We cannot really tell how many fish live in our seas; it is not a simple question thus it cannot have a simple answer. Nevertheless, scientists use some techniques to assess the condition of the fish stocks, in other words how healthy the fish populations are and for how long they can continue to stay that way.

## 2.2. Common Fisheries Policy

The European Union has set an agreement concerning the management of the fisheries in its area. The CFP (Common Fisheries Policy) is a set of rules for the management of the European fishing fleets and the conservation of the fish stocks. The European fishing fleets thanks to the CFP, have equal access to EU waters and EU fisheries, thus the resources are managed in a fair way, and the fishermen develop healthy competition between them.

The stocks are not infinite and some of them are overfished. Sustainability of the European fisheries industry and the protection of the size of the fish population is one of the main concerns of the European Union. The CFP was established during the 70s, however a lot of changes occurred in its policy during the following years.

The aim of the CFP is to ensure that the fisheries and the aquaculture sectors are environmentally, economically and socially viable and provide the citizens of European Union with healthy food. In addition to that, one of its main goals is to bring into the lives of the fishing communities as much satisfaction as possible.

Limits should be set, always concerning the maximization of the catches. The reproductive capacity of the fish populations should not be undermined by the fishing practices. The catch limits should be viable in order to contribute to the conservation of the fish stocks.

Fishing fleets should become more selective in terms of catches and at the same time the practice of discarding unwanted catches should be phased out.

With the common fisheries policy for sector of policy are covered:

- Fisheries Management
- International Policies
- Markets and Trade Policy
- Funding Policy(European Commission, 2013)

### 2.3. Regulation for the Discarded Catches

The fish that the fishermen catch are not always of their interest. The often-dead fish that they do not want were discarded back to the sea. The Common Fisheries Policy until 2013 obligated fishermen to through back into the sea the species they catch if they are too small of a size or if they belong to some protected species. The fishing practices in many cases determine the mortality of the discarded organisms that can be very significant. The thrown back fish are usually dead.

The discarding took place usually after sorting the catches on board. The main reasons that the fish were discarded apart from the obligations, were that the fish were not of interest for the local markets, some of them were damaged and in many cases, they kept only the most valuable fish with the aim to maximize returns.

The reform of the Common Fisheries Policy in 2013 has the goal of the elimination of discarding the by-catches introducing the Landing Obligation. The Landing Obligation

requires all catches of the regulated commercial species on-board to be landed and counted against quota. There are some exceptions in this regulation. If the fish are damaged or have high survivability, they can be returned in the sea, but they must be documented in the logbook.

The idea behind this regulation is to avoid the waste of fish as in many research, the calculations showed that the fish thrown back comprise as much as the 20% of the global catch. Those catches can be sold for other reasons than direct human consumption. The producer organizations have the duty to assist their members to find outlets for those catches but the creation of a market for undersized fish will not be promoted. The rules that are set to those fish, is that they should be handled like animal by-products.(European Commission, 2021)

The avoidance of catching of unwanted fish is the goal of reduced discarding. Fishing patterns could be changed as well as the selective methods such as gear, real-time closure and by-catch quotas (the amount of fish which can be legally caught or landed by a vessel). However, the control of the activities in the sea is difficult, it is not easy to monitor all the vessels. The larger ones can be easier monitored, but from the EU fishing vessels the 84% are small-scaled fisheries and the placement of on-board staff to monitor or control the discarding practices is difficult.

Interested parties support the discard ban. A number of NGOs (e.g., WWF and Oceana) agree with this decision provided that parallel measures should be taken for the catching gear and the real time closure. Engagement has been made from the EU fishing sector in numerous projects. Fishing representatives characterized the discards as “unacceptable waste of natural resources that must be addressed” however they believe that the simple banning on discard will not work. Under the Alliance for a sustainable reform of the CFP,

retailers, processors and traders believe that the first measure taken should be the management and the prevention of the by-catches before taking any further steps. (Library of European Parliament, 2013)

#### 2.4. The Alarming Decline of Mediterranean Fish Stocks

It is very complex to manage the fisheries in the Mediterranean, there are many gear-types and a lot of nations involved. That kind of idea, is the one that held behind the management of the Mediterranean fisheries as the need of strong political decisions was imminent in order for it to be accessed.

In 2016 after some research was made, it was found that 97% of the shared stocks were overfished. The level of exploitation of the fish is very high while the selectivity is very low. Especially, in the small pelagic and demersal fish stocks the rates of exploitation have skyrocketed, the combination with the increasing proportion of juveniles in catches is a great reason of concern. The fishing mortality due to the few actual measurements and the poor management is on the rise. The overfishing reality needs to be challenged and imminent decisions should be taken in order to have the best results possible. (Vielmini, 2017)

Along the Mediterranean there were 75.405 vessels in 2019. The production of fishery products in 2018 was estimated in about 5.7 million tons, however, it was significantly lower in comparison to the year of 2000. Since then, it dropped around 18.5%. The declination was 6.4% between the years 2013-2019. Concerning all the EU-27 fisheries production from catches and aquaculture that were produced during 2018, the countries that produced the

most were, Spain (21%), Denmark (14.4%) and France (13.6%). Greece is in the 15<sup>th</sup> position with an estimation of 80 thousand tons of live weight in catches.

From the overall fish that were caught from the EU countries, about one tenth was caught in the Mediterranean and the Black Sea. The EU countries also fish in all the regions of the Atlantic Ocean, namely Southeast Atlantic, Northwest Atlantic, Southwest Atlantic, Eastern and Central Atlantic, Northeast Atlantic and in the Indian Ocean. (Fishery Statistics, 2020)

Overfishing has led to the jeopardization of the lives of millions of people. The risks are very real, and measurements should be implemented.

### 3. Greek Fishing and Greek Fishing Fleet

#### 3.1. Fishing in Greece

In the modern Greek economic reality, fisheries and aquaculture are a highly developing sector. The geomorphological peculiarity of Greece facilitated the development of the above business activities.

The area of Greece reaches 130.049 km<sup>2</sup> while its population approaches 11 million inhabitants. From all the countries of the European Union, Greece has the largest coastline with a total length of 15,021 km covering more than 6000 islands and islets. Island areas constitute the 19-20 % of the total area of the country and are the key element for the development of the economy. The Greek coastline represents the 13,89% of the total EU-23 coastline. Along the coastline are positioned the largest urban centers of the country. Their

population is about the 90 % of the Greek population and it increases tenfold during the summer. The total area of Greece has 40 lakes, and they cover the 0.5 %. (Nakos, 2013)

### 3.2. History of Fishing in Greece

In the modern Greek economic reality fisheries and aquaculture are a highly developing sector. The geomorphological peculiarity of Greece facilitated the development of the above business activities. The coastal marine ecosystems were exploited by the Greek fishermen and to a lesser extent inland ecosystem, such as rivers and lakes. The medium-sized fisheries are basically the economic backbone of the fishing industry in the modern Greek reality.

The General Statistical Service of Greece was established in April 1928 and it was the first organized effort to collect fishing data. One reason that Greek fisheries developed was the integration into the Greek population of Greek refugees from Micra Asia and the Pontus region and the financial aid from the League of Nations which resulted in the creation of a modern, for the time, fishing fleet.

Greece had its setbacks due to the economic bankruptcy (1932) and especially due to the Second World War. Those led to the delay of the modernization of Greek fisheries and suspended the first discussions on the organization of fisheries and research on fish stocks. In addition to that 65% - 70% of the fishing boats were destroyed in the military operations of the World War II. In the period of 1946-1954 the development began where the fisheries sector was reconstructed with the financial support of the international organizations. The fisheries sector was organized into subsectors after 1963:

1. Monitoring (1963 establishment of National Statistics of Greece),
2. Research (1965 establishment of the Institute of Oceanography and Fisheries Research of Greece, today Hellenic Center for Marine Research),
3. Legislations (1966: technical measures for fisheries) and
4. The Fishery Products Distribution Network (1965 establishment of new fishing markets)

The above-mentioned new sectors in combination with the participation of Greece in the European Union had a result in the modernization of Greek fisheries and the immense increase of the fish production in 1970-1994. New remote areas and deeper waters were exploited. (Nakos, 2013)

A particularly large number of fishing vessels characterize the Greek fishing fleet. Vessel boats were numbered 14,018 in 31.12.2019. They do not have very powerful engines. They capture coastal stocks along the extensive coastline and the vast number of islands.

### 3.3. Fleet Description

Greek fishing fleet, according to the data of the National Fisheries Register (figure 12/5/2020) included on December 31, 2019 a total of 14,018 active fishing vessels with a total capacity of 66,511.28 GT and power 392,440.31 KW.



The Greek fishing fleet, on 31.12.2019, is presented by length category in the following table, according to the separation accepted by the O.O.S.A.

Table 1

| TOTAL LENGTH (m)  | NUMBER OF VESSELS | CAPACITY (GT) |
|-------------------|-------------------|---------------|
| 0,00-5,99         | 4.913             | 3.329,10      |
| 6,00-11,99        | 8.300             | 22.592,39     |
| 12,00-17,99       | 392               | 6.991,30      |
| 18,00-23,99       | 238               | 11.587,65     |
| 24,00-29,99       | 148               | 15.895,84     |
| 30,00-35,99       | 25                | 5.308,00      |
| 36,00-44,99       | 2                 | 807,00        |
| 45,00-59,99       | -                 | -             |
| 60,00-74,99       | -                 | -             |
| +75,00            | -                 | -             |
| Without an engine | 190               | 91,56         |

The Greek fishing fleet operates, almost entirely, in the Mediterranean Sea, it is the most populous fishing fleet in the European Union in terms of number of vessels. It is classified into three (3) large categories, depending on the fishing gear used:

**Boats with static tools:**

Most of them are fishing vessels that are active all year round in the coastline of the country and in the island zone. They use a variety of fishing gear, depending on the season and the targeted species. However, there are also vessels of significant size, fully equipped to carry

out multi-day fishing trips outside the sea areas of the country (Aegean, Ionian and Cretan Sea) and in most of the international waters of the Eastern Mediterranean, they use static fishing gear at most.

**Boats with sliding tools:**

Vessels with bottom trawl gear (trawlers), which are active in the Greek and international waters of the Aegean, Ionian and Cretan Seas, and mainly in the FAO / GFCM areas GSA 20, GSA 22, and GSA 23, as well as in third country waters, are included in the framework of bilateral fisheries partnership agreements between the EU and third countries as well as in private agreements.

**Boats with circular nets:**

Boats with purse seine fishing gear, which are active in the Greek and international waters of the Aegean and Ionian seas, targeting different pelagic species.

**Boats with annual fishing licenses:**

There are 4 different categories for those licenses. The 1<sup>st</sup> one is a national institutional framework of 9 months for coral fisheries with fishing zones that change every 5 years. The 2<sup>nd</sup> is license is for big pelagic fish like Xiphias and Thunnus Alalunga. The 3<sup>rd</sup> is for fishing of Holothuria species. The 4<sup>th</sup> type of licenses is for the fishing of a shrimp species named Plesionika Narval.

### 3.4. Economics of the fisheries in Greece

Regardless its limited contribution to the gross domestic product (GDP) which is less than 3,1%, the Greek fisheries are very important concerning their socio-economic impacts. During the year of 2019, the number of people employed in this industry in Greece were 19.889. The quantity of catches reached the 81.920 tons, and the value of those catches was 279.420,80 thousand Euro.

The Operational Program for the support from the European Maritime and Fisheries Fund in Greece aimed at bringing a successful conclusion on the basic national development priorities along with the “Europe 2020” objectives. The reforming of the CFP and the support in the EMFF (European Maritime and Fisheries Fund) regulation is addressed by the Operational Program. The EMFF is the fund of the EU’s maritime and fisheries policies for the years 2014-2020. It is among the five European Structural and Investment Funds which complement each other and seek to promote a growth and job-based recovery in Europe. Projects are co-financed by the Fund, along with national funding. The total budget contributed for the Operational Program of Fisheries and Maritime is 523.406.309 Euro. From this the 388.777.914 Euro are contributed from the EU. The rest specifically the 134.628.395 Euro are national. That budget is for the period of 2014-2020. (ESPA, 2020)

The fisheries in Greece are small scaled in the most part and the vessels are old with limited capacity. The economic performance is not very high and room for further development is available. Low level of training and old age characterizes most of the fishermen. As a result, the fishing industry needs to be promoted to focus on the solving of those issues.

The attention of the OP for the period of 2014-2020 focuses on the following priorities:

- 1.** Promotion of the environmentally sustainable, innovative, competitive, resource-efficient and knowledge-based fisheries. More selective fishing gear will be supported by the EMFF. Fields like the health, hygiene, safety and the working conditions of the fishermen will be addressed. The sustainable management of the fisheries sector is in the center of attention. More specific scientific monitoring of artificial reeds, formation of marine protected areas and the modernization of the infrastructures are necessary. Correspondingly, the effect will be a sector with healthy stocks, sustainable marine and coastal ecosystems and stability for the economy, the coastal communities and the environment. The budget for that cause was 186,2 million Euro.
- 2.** Supporting of the environmentally sustainable, innovative, competitive, resource-efficient and knowledge-based aquaculture. Aquaculture is a sector that is developed in Greece. The climatic conditions and availability of adequate sea and inland areas, the skilled human resources that have a deep knowledge of the sector bring an advantage to the country. With the support of the EMFF, by 2023 the aquaculture sector is expected to be dominant. Economic growth, top quality of fish and employment is among the expectations. The budget in this field is 89,75 million Euro.
- 3.** Enforcing the Common Fisheries Policy (CFP). The national Data Collection Framework is done by the Greek Fisheries Research Institute (FRI) and the Hellenic Centre for Marine Research (HCMR). The management of the European fishing fleets and conservation of fish stocks is ruled by the CFP. The purpose is to improve the fisheries and aquaculture, collect the data corresponding to those and monitoring, controlling and enforcing the fisheries. The budget was 92,08 million Euro.

4. Increasing the employment and territorial cohesion. Coastal areas and islands depend on the above activities. The employment and the wellbeing was supported by the EMFF. The aim is on the diversification of activities so that their actions gain more value. The budget for that reason was 54,11 million Euro.
5. Promoting marketing and processing. Fisheries and aquaculture support the sector of productivity in Greece. The fund invested in the processing in order to increase efficiency in the energy consumption, safety, health and working conditions. The gradual modernization of the sector is on the run as well as the investment of more sustainable technology and systems in order to have improved products and have better positioning in the market. The budge was 78,27 million Euro.
6. Application of the Integrated Maritime Policy (IMP). The coordination among different areas of policy should be increased. The development of the Common Information Sharing Environment (CISE) should lead to the achievement of the objectives of the Integrated Maritime Surveillance (IMS). The corresponding budget was 5,92 million Euro. (European Maritime and Fisheries Fund, 2014)

For the period of 2021-2027 the EMFF will continue to support the European Fisheries sector leading gradually to more sustainable fishing practices. The blue economy will be enhanced, the seas and the oceans will improve by making them safer, cleaner and more sustainably managed. Ultimately, it is important to mention that 30% of the budget will be given to mitigate the impacts of climate change. (European Commission, 2018)

### 3.5. Traffic Fees for Fishing Vessels

Concerning the article 57 of Law 4646/2019 regarding the identification and payment of trailer charges for the fishing vessels, the traffic fee in favor of the Greek State is determined.

More precisely, a traffic fee is imposed in favor of the Greek State on all fishing vessels and boats with the Greek flag, as well as on tugs whose operating time in maritime transport services does not exceed fifty percent of their total operating time. The obligation to pay the fees excludes purely lifeboats that perform exclusively rescue and maritime assistance operations.

The fee for fishing vessels and boats is calculated according to the following scale, based on their total length:

Table 2

| Total length of the vessel in meters | Annual fee in euros |
|--------------------------------------|---------------------|
| Up to 6                              | 100                 |
| From 6,01 to 8                       | 150                 |
| From 8,01 to 10                      | 225                 |
| From 10,01 to 12                     | 338                 |
| From 12,01 to 15                     | 506                 |
| from 15,01 to 18                     | 759                 |
| From 18,01 to 24                     | 1.139,00            |
| From 24,01 to 30                     | 1.706,00            |
| From 30,01 to 36                     | 2.563,00            |
| From 36,01 to 45                     | 3.844,00            |

|                      |          |
|----------------------|----------|
| From 45.01 and above | 5.767,00 |
|----------------------|----------|

The imposition of the fee applies from the registration of the ships in a Greek port and until the time their deletion from the register takes place.

For the years of commencement or cessation of the operation of the ships the fee is calculated according to the days of their operation during the year. In case of a fully proven stop due to repairs or lack of work of these ships for a period exceeding twenty consecutive days per year of operation, the fees are reduced according to those days. (AADE, 2020)

### 3.6. The Greek Inconsistency

European Union as mentioned before has a set of rules for a Common Fisheries Policy.

Despite that, the Southern part of Europe and especially Greece have not always followed the directions in a proper way. Specifically in Greece, the collection program of fishing data started in 2003 with 50% co-funding from European funds. In 2007 the program was interrupted because it was not funded from the Greek side. From 2008 and for 5 years the program was interrupted in our country costing not only money but also significant gaps of knowledge.

Greece according to the EU legislation (Regulation 1967/2006 concerning management measures for the sustainable exploitation of fishery resources in the Mediterranean Sea) was supposed to create a fishing protected areas network. The above was never enforced. There have been decades since fisheries management measures were taken and in only in

very few marine areas. As a result, the decline of fisheries productivity was not able to be compacted.

Greece is obligated according to the EU regulation of 1967/2006 to collect scientific data on the location of the protected habitats and map their distribution. Yet, the mapping is not working well, and the coral reefs particularly, are not mapped at all. The outcome is that the measurements requested are impossible to be taken. Those breaches of the EU environmental legislation, could cause damage due to illegal and catastrophic fisheries that could take hundreds or even thousands of years to recover.

Marine mammals, turtles, several species of sharks and other endangered fish live in the Greek seas. EU legislation has defined many of them as threatened or protected. The support of those species is a role that Greece should play and is compelled to do as such. Regardless that, a lot of those species are caught and sold in the markets. However, the authorities are rarely informed.

Moreover, the fish have a minimum legal size that can be caught defined by the EU legislation. Laws are not followed in many cases and undersized organisms are still captured. Numerous undersized and even protected species are being sold in the Greek fish markets. EU uses legislations for many fish that are illegal to be captured smaller than their reproduction size which enhances the sustainability of those species population.

To conclude, another important issue is that the National Fishing Monitor Centre is normally receiving information of the location of fishing fleets through satellite EU Vessel Monitoring System. This happens with the purpose of controlling illegal fishing. Although, it is often offended because this system costs a lot of money. (Archipelagos, Institute of Marine Conservation, 2015)



### 3.7. Reduction of fishing Capacity

The total number of Greek fishing vessels has decreased significantly in recent years and continues to decline. In general, the numerical reduction of the Greek fleet was mainly due to the departure of fishing vessels with financial support, in the context of the implementation of Council Regulation (EC) 1198/2006.

During the year of 2017, the forecast of EPALTH 2014 - 2020 for the final cessation of fishing activities was activated, with the announcement of the relevant Measure, in accordance with the provisions of the Action Plan submitted with the Fleet Report for 2016, and the inclusion of a significant number of vessels.

The implementation of the demolition took place mainly in the year 2018 but continued in the year 2019. According to the National Fisheries Register, in the framework of the Operational Program for Fisheries & Marine (EPALTH) 2014-2020 in the year 2019 were made 12 exits with financial support from the Greek fishing fleet, and therefore we had a reduction in the fishing capacity of the fleet from this case. (Greek Fishing Fleet, 2020)

The number of motor fishing vessels, medium and coastal fishing, decreased by 1.1% in 2019 compared to 2018. Specifically, the number of boats amounted to 13,877 in 2019, compared to 14,030 boats in 2018 (Table 3)

Changes in the number of the motorized fishing vessels (medium and coastal fishing), by the type of their fishing gear, are the following:

- The number of medium-sized fishing vessels (trawlers and purse seiners) remained stable in 2019 compared to 2018. Specifically, the number of vessels numbered to 485 (246 trawlers and 239 purse seiners) for 2019 and in 2018 (Table 3).
- The number of coastal fishing vessels (winch trawlers and other gear) decreased by 1.1% in 2019 compared to 2018. Specifically, the number of vessels amounted to 13,392 (221 winch trawlers and 13,171 other vessels) in 2019 and 13,545 (222 winch trawlers and 13,323 other vessels) in 2018 (Table 3). (Service of Statistics, 2020)

Table 3

| Fishing Category and fishing gear type | 2018   | 2019   | Alteration (%)<br>2019/2018 |
|--|--------|--------|-----------------------------|
| Total                                  | 14.030 | 13.877 | -1,1                        |
| Average Fishing                        | 485    | 485    | 0,0                         |
| Trawlers                               | 246    | 246    | 0,0                         |
| Purse Fishing                          | 239    | 239    | 0,0                         |
| Coastal Fishing                        | 13.545 | 13.392 | -1,1                        |
| Winch Trawls                           | 222    | 221    | -0,5                        |
| Other Tools                            | 13.323 | 13.171 | -1,1                        |

The above statistics on Table 3 are initial yet they bring a sense of concern and the need for further investigation to find the reasons behind this result. However, it is clear that there are many people that work in this sector and that measurements can be implemented to assist in the improvement of that area.

## 4. Tourism

### 4.1. What is tourism

In the international and in the Greek literature we can find many different definitions of the concept of tourism. Almost the majority of the definitions characterize tourism as an activity directly related to human tendency for communication with fellow human beings, entertainment, as well as creating new experiences for the people that travel and visit a tourism destination. In the following paragraphs there are two definitions that try to give clarity and completeness to the definition and importance of this word.

The World Tourism Organization (UNWTO) gives us the first definition. Accuracy and completeness characterize it, describing it as a series of activities. Being more specific Tourism consists of activities of people who travel and stay in places different from their usual environment, for leisure purposes, to avoid the problems they face in their everyday lives or to do business activities. Additionally, these reasons should not be for a period of time more than one year. This normal term is used to exclude from this definition travel that is either regular or frequent within of a usual residence and work or other travel routines. To generalize, Tourism is a combination of activities, services and industries such as means of transport, sports events, places of entertainment and of residence, restaurants, other shops and hosts of other activities, offering a travel experience, contributing at the same time in the improvement of the living standards for the living population, the creation of jobs, and the improvement of the economy and the investments made for the above reasons. (UNWTO, 2020)

The United Nations Conference in Rome in 1963 was hosted concerning the International Travel and Tourism. It was then agreed that the person who visits a country different from that of his permanent residence for any reason other than the practicing of his profession for which is paid with resources of the country he visits will be defined as a visitor. This fall into two categories of visitors:

- The tourists: The countries are visited by them, they stay in the region for at least on day, and their reasons for visit are professional, holidays, studies, participation in a mission or meeting or conference, religious, sports, visits to family or friends.
- Excursionists: People who stay in a country for less than a day. Various passengers are included, cruise ships, guests arriving and departing the same day for any reason without spending the night, as well as crews of planes and ships. (UN Conference of International Travel and Tourism, 1963)

## 4.2. History of Tourism

The collection of experiences, knowledge and the acquaintance with new places and cultures fascinated the man deeply form the ancient years. Scientists were the first travelers of their age and time, as well as merchants who linked their journey with their profession. In Mesopotamia, the first big cities were developed. The cities, started to contact each other for reasons of trade and knowledge. At that time Sumerians created the money, the wheel was invented as well as the cuneiform writing. Those above reasons boosted the interaction

and traveling between people of different places, it also entitled them as the founders of tourism.

There was another form of tourism that rose in the ancient Greece. This was sport tourism which started in 776 BC with the organization of the first Olympic Games. The Olympic Games were the first organized events with international participation and special motivations including celebrations, festivals and athletic events. From every city-state Ancient Greeks met, interacted with each other, exchanged views and opinions, entertained and lived in a different place than the one they usually lived for a specific amount of time.

The spread of the Roman Empire and Alexander the Great contributed to the improvement of the road network, the specialization of tourism travel and the improvement of the safety for the travelers. For religious, non-religious and cultural reasons many areas such as Greece and Egypt became the center of attraction. Ancient Ephesus for example during the age of Alexander the Great (334 BC) was visited annually by 700,000 tourists, for cultural and entertainment reasons. The financially sound travelers during those years traveled great distances to visit the seven wonders of the world (400-200 BC).

During the Middle Ages, most of the traveling's were made for religious purposes, celebrations, events and even thermal treatments. From Roman Times Empire, hot springs were very popular, later during the Renaissance they became centers of leisure and entertainment for high society. It is a surprise that most of the travelling happened during the Middle Ages. Visitors traveled to visit Jerusalem and the Holy Land. From all over Europe, pilgrims traveled despite the dangers and hardships, in order to visit those areas to fulfill their religious duty. It is also important to mention that the great journeys of discovery and exploration took place during those times (China, America).

The needs of the travelers during the Renaissance changed and so did the offspring of aristocratic families. They were usually encouraged to travel to Europe, for three-four years or more with the goal to broaden their spiritual horizons and ideals and to be accepted in the high royalty families. Those trips were called “Grand Tour”. Travel development led in some way to the massification of tourism and the creation of organized “touristic packages” with special facilities like that of the tour guide. It has also helped in the development of all the tourism-related infrastructures such as hotels, means of transfer and roads. At the same time during the organized travel to Europe, major explorations began in America , Africa, Asia, Australia and Oceania. The spiritual horizon of the travelers broadened after the new discoveries of those areas. Merchants, scientists, priests followed the seafarers in their travels to the new destinations with a goal to give and gain knowledge about history, culture, science and ideals.

The 19<sup>th</sup> century is the year of the rapid growth of tourism that led to this future migration. Two technological changes that occurred in the early 19<sup>th</sup> century played a very important role in the form and the evolution of travelling. The railway and the shipbuilding of the steamer. With those two the transportation costs were significantly reduced, and travel became faster and safer.

However, as tourism developed the need for organization of the transportation arose, as well as programming and automation of all the applications of the elements of a trip-journey. That was the time that the first companies that undertook the organization of a group trip appeared, laying the foundations of tour operating and current travel agencies. The first travel agency was created from Tomas Cook in 1841 in England. He was organizing easy and long trips in Europe, America and the Holy Land. It offered travelers, in addition to the trip itself, more services, such as tour guides, hotel vouchers and bills of exchange

currency. Many businessmen in Europe and America followed the lead of Tomas Cook. As a result, organized travelling became a trend in the middle class of the era. Tourism is now a consumer good that is addressed to almost everyone.

Tourism continued to evolve during the 20<sup>th</sup> century. Europe became the most popular destination of the Americans for their touristic trips. Travels became cheaper, faster and safer as steamships and railway evolved. The entrance of the car and the plane in the field of tourism changed it a lot as travelers used them more in comparison to the ship and the railway. During the next years cars became mainstream as a transportation means for the masses. This led the tourists to travel more in detached places of their own country.

Touristic agencies, big hotels and tourism in general evolved a lot during the next years. Tourism became the focus of many areas and a lot of people generated income form activities that they developed. Poor countries gained benefits from the foreign exchange and the new forms of employment. Tourism was promoted by the developed countries as a form of economic activity that was very beneficial for the destinated countries and a new form of lawsuit was developed to strengthen the organization of touristic activities and help their development.

After the World War 2 the reconstruction of Europe started, and the dynamic development of tourism followed. Busses for tourists developed, leased cars and private jets. That was when tourism started to acquire its modern form. During the next years tourism gained the attention of International Organizations like the United Nations (UN).

(Papageorgiou, 2013)

### 4.3. Touristic Trends

Tourism has become a field of great importance for the economy, the society and the culture, especially in the last century. Despite the many fluctuations that it has sustained, tourism shows great strength and follows an upwards trend.

With the beginning of the 21<sup>st</sup> century some new trends in the field of tourism arose.

Specifically:

- Shorter and more frequent vacation trips.
- Voyages have converted into inland and intra-regional ones from long and oversea voyages.
- More and more people are concerned about the security during their vacations.
- Late booking for vacations has become a trend and the internet plays a main role to that.
- Even though low-cost air transportation is in demand the land transportation shows an increase.
- Vacations that offer experiences aligned with new cultures and the nature brings more interest to the travelers.
- The internet has helped people to get a better idea about a place they want to visit and make some research of their own. This has led to a decrease for the demand of full vocational fixed packages.



- More and more offers and opportunities arise in the last days that someone is about to book something for his vacations.

Those trends if they get compared in the long term with the characteristics the tourism had during the decades before, they would be defined by three major poles.

- The relationship between free time and work.
- The technology.
- Safety and security

A great impact has gotten to the field of tourism due to those new technologies. The services are developed and delivered faster. Controlled environments with new infrastructure are developed and constructions of great extend for very big events. The internet has given a great boost to the changes that happened. Almost everyone nowadays has electronic devices connected to the internet and has access to a lot of information. It has helped tourists to have better and faster contact with services of their interest. Those developments give more and more opportunities so that people can give or have better services and has changed the today's reality of tourism.

Human rights are in the center of attention for more and more countries. This means that free time and specific hours of work every week are considered very important. People have more rights and are encouraged to claim them. A lot of activities are introduced in the latest years to make a good use of that time. In those activities tourism has a major role. Vacations that do not only focus on the time off and the distance from work the people

have, but also to new experiences, activities, contact with new cultures, volunteering and the development of new skills. Alternative types of vacation gain space and imagination and new forms of tourism are on the focus. The demand for something new from the tourists makes the touristic agencies to try and meet their personal needs.

In addition to the previously mentioned the aging of the society in some countries and the better health and higher incomes that they have in comparison to former decades will bring the need for different types of tourism specified for them.

Moreover, the possibilities that telework and work from home bring due to the latest events, will make the tourism activities to change again and focus into helping people to be able to respond to their obligations at work. (Tyri, 2017)

## 5. Alternative tourism

### Introduction

Alternative tourism is a very strong touristic product, with great dynamics today in the European and global tourism market. Its proper and rapid development will have multiple benefits, such as: attracting many additional tourists and promoting other tourism products such as Recreational Fishing. In all around the globe it is developing with fast pace and people on touristic areas need to promote it in order to ensure the sustainability of their areas. This tourism practice can keep young people in their home as they will not search for a job in more advanced city centers.

## 5.1. Alternative forms of tourism

One of the biggest profitable industries in the world is tourism. It is well known that mass tourism when applied with a non-calculated way can pose a lot of problems. It burdens the natural environment, spends a lot of natural resources, alters the environment in terms of its structure and in many cases the essential characteristics of the area where it is applied. Moreover, the profits are most often distributed in an unequal way.

This led to the development of new more environmental and society friendly tourism activities that promote the local culture and at the same time bring a better income to the local residents. (Nasto, 2020)

Alternative tourism - is a new philosophy in the field of tourism and includes all forms of tourism which attract tourists with special interests. As alternative forms of tourism are considered other than those of mass tourism, which seek to avoid negative and create positive social, cultural and environmental impacts. It has the following features:

- Avoidance of the classic tourism practices of mass tourism.
- Protection of the natural environment and the ecosystem.
- Solution for the problem of seasonal tourism.
- Human interaction with the cultural monuments.
- Support of rural areas.

The idea behind alternative tourism is:

- The emphasis on gaining experience of local cultures and the preservation of traditional values.
- Small-scaled controlled and regulated development.
- The variety of activities (Triarchi, 2017)

## 5.2. Profile of the Alternative Tourist

Alternative tourism offers a change in contrast to the standard ways of tourism. The alternative tourist in general has many different ideas in comparison to the rest of the society. In the past some of the alternative tourists did not accept the term “tourist” but they considered themselves more of a traveler that explores having in mind a deeper meaning. Many in the past have called them with abusive names as they did not approve of their ideals.

Alternative tourists have different motives that drive them and change their touristic behavior, most of their vacations pose many differences in comparison to the mass tourism. They tend to have different characteristics than the average person.

The alternative tourist usually has some of the bellow specific characteristics:

- Tries to gather as much information he can before his vacation.
- Has a deep need for exploration.
- Tries to avoid mainstream tourists.
- Visits places of environmental interest detached from the civilization.

- Connects with the local residents and tries to learn things about their culture.
- He is well educated.
- Has more money to spend than the average tourist.
- Travels in small groups or in many cases alone.
- He visits places for longer periods with the goal to learn more things.

### 5.3. Contribution of the Alternative Tourism to the Local economy

Mass tourism has attracted a lot of criticism. This led to the development of different types of tourism to control the problems that arise. The alternative tourist tries to have contact with the local residents, seeks information about the history of the area he visits, has in mind the preservation of the area and tries to have an experience that involves different aspects and activities that the average tourist does not usually find in his vacations.

In order to achieve the development of alternative tourism the connection with other local aspects of the economy like agriculture, traditional crafts and fishing is imminent. As a result, the reduction of money that leaves the local economy through this type of tourism bring great economic bonds of the activities that are applied in those areas and the wellbeing of the local economy. This gives the conclusion that local businessmen with average investments can contribute to the economic development. They utilize local residents and their skills. Small scale investments in the alternative tourism maintain the control of the local economy to its residents that gain the economic benefits. In addition to that, the integration to the local economy of the small businesses can be achieved easier, leading to the sustainable development of the area.

The participation of the local residents to the economic activities, bring endogenous touristic development. The locals gain the ability to control their life better, shaping their business and their society. The acceptance of the touristic activity from the locals and its incorporation is vital for the long-term prosperity and development. For this reason, the good behavior of the locals to the tourists is the number one step to have positive results. Recreational Fishing is one of the activities that promote alternative tourism and supports local societies. (Andriotis, 2003)

## 6. The Contribution of Tourism to the Greek Economy

### Introduction

Contrary to most of the activities of the primary and secondary sector, Tourism is an activity delimited by the demand of products and services. The activities of the primary and secondary sector are production activities that lead to the creation and offering of products.

#### 6.1. Tourism as an activity in Greece

The GDP of our country depends massively in tourism. During the years of the economic crisis, tourism was the pillar of the economy and without it recession and unemployment would have skyrocketed. It was also the reason that led us to positive growth rates.

Additionally, the morphology of Greece assists in the application of different touristic activities in all around the country. This helped many regions of our country to survive and develop. On the other hand, tourism is a seasonal activity due to the fact that most of our

touristic activities involve the sun and the sea and develop mostly during the summer season.

## 6.2. Covid-19 and Tourism

Tourism had been effected greatly by the pandemic of Covid-19. A massive decrease of the touristic activities and as a result for the income of those who work in this sector are some of the main impacts. Travelling has depleted and it is almost impossible to have good economic results. It is a period of change and it seems like that the new trend of sustainability and digitalization will assist tourism into reaching new heights after this crisis ends.

## 6.3. Tourism in 2019

Greece in 2019 had 31,3 million foreign tourists and received almost 17,8 billion euro. The increase in revenue during 2019 was 13,1%. The investment activity was 3,2 billion of Euro from which the 1,2 billion Euro was of domestic added value.

The increase of the direct contribution of tourism in the Greek economy increased by 10,9 % while the increase of GDP for 2019 was 1,5%. Its financial contribution that corresponds to the GDP was 12.5% and if we measure its indirect contribution is between 27,5% and 33,1%.

From each euro of touristic activity, it is created additional economic activity is ranging from 1,2 euro to 1,65 euro. As a result, for every additional euro from tourism the GDP of

the country increases by 2,2 and 2,65%. This shows the large economic benefits gained from this industry.

The economy of three island Regions depend to a great extent on tourism. One of its greatest contribution is during the peak of the 3<sup>rd</sup> quarter of the year. The 17,1% of the employment and overall, between 37,6% and 45,2 % depends on tourism. It is the main reason that unemployment decreases during that period.

The traveling receipts covered the 79,9% of the deficit of the goods balance. These receipts equal to 78,4% of the receipts from the exports of all the products. If we also consider the touristic income from air and sea transport, then the totality of receipts reached the 87,6% from the exports of all the products with the exception of ships and fuels.

The total GDP for the year of 2019 reached up to 187.456 million Euro. The contribution of tourism was about 23,4 million. More than 90% of the touristic income arrives from people that travel from abroad, making tourism almost a purely export activity.

The above statistics prove the importance of tourism and as a result its dynamic presence in the Greek economy. (Ikkos, 2018)

## 7. Recreational Fishing Tourism in Greece

### Introduction

Fishing areas of Europe consist of some of the most impressive landscapes and numerous attractive fishing ports. This can make them very important and easily chosen touristic



destinations. Coastal and marine tourism is the most in demand activity in Europe and is promoted a lot. However, despite the fact that most areas have many gains from coastal activities, they do not give plenty of attention to the fishing community and the benefits that come with it. In most of the areas fishermen face many difficulties in their daily lives and their incomes barely covers their needs. This means that small local economies cannot depend only to commercial fishing. Tourism is one of the few fields that during the economic crisis develops in fast pace. It can bring a second income to the local residents and help them sustain their residential areas. There are numerous cases of people that seek to find a way to develop the local economy and Recreational Fishing can be the way to achieve that. In that way young people can be kept in the profession of fisherman. It might be the key that will bring the solution for the descending of the Greek fisheries. Moreover, it is a form of alternative tourism that assists not only the economy but also promotes the sustainability of the environment.

### 7.1. Recreational Fishing Tourism as a definition

By using the definition of Recreational Fishing Tourism, we describe the accommodation of people that do not belong to the crew of the boat. The goal is their amusement and a contact with the fishing procedure. People that participate in this activity usually love the coastal environment and in addition to that want to learn more about the local culture of the area.

Recreational Fishing Tourism as a concept begun due to the reduction of the local fisheries and the decrease of the income of the fishermen. They tried to find an extra profit

to make a living. This activity helped them to stay in the fishing sector as they are used to, and this was the main reason it has developed a lot in many countries. The goal is the sustainable development of the area this means to find a balance between the stakeholders and the natural aspects of each sector. The last ingredient that helped in the existence of the Recreational Fishing Tourism is the need of the people to get close to nature and live and have experiences as a fisherman for a day. Almost everyone has tasted some fish but very few had the experience of actually understand the effort needed in order for the fish to reach to us. (Pagiata Georgios, 2006)

In other words, Recreational Fishing Tourism is defined as touristic activity that is developed by the Shipowner, a Shipowner Company or a consortium or an association of coastal or technical fishing Alloys that board its boats with tourists to develop a tourist-recreational activity.

The activity of Recreational Fishing Tourism includes:

- The development of no-commercial fishing on a professional fishing vessel, through the use of techniques of the nonprofessional fishing.
- The development of a touristic – entertainment activity with the purpose of spreading the ideals and the culture of the sea and fishing that happens on a fishing vessel and contains the observation and participation of the professional activity of fishing and tasting the seafood gastronomic flavors with other traditional dishes of the area.

- Knowledge and evaluation of marine and coastal areas where the fishing activity develops, as well as the approach of the fishing industry to the tourists and the public in general.

In addition to that the procedure should have a deeper meaning with the purpose of getting familiar with a new activity, an area, the culture and the traditions of an area.(Pagiata, 2006)

## 7.2. Recreational Fishing Tourism and its characteristics

Recreational Fishing Tourism is a form of alternative tourism and is defined by the promotion and utilization of fishing and aquaculture activities with deep concepts of tradition concerning the employment and the means used, but also including concepts of the aquatic environment and aquatic life.

In particular, fishing tourism is defined as:

- The demonstration of fishing methods.
- Displaying of methods of breeding and cultivation of aquatic organisms.
- Presenting of fishing gear.
- The promotion of the importance of fishery and the biodiversity of the aquatic ecosystems.
- Highlighting the way of life of fishing communities.

Recreational Fishing Tourism is developed in all the waters of the country. Those are the sea, lakes, rivers, lagoons and in general where fishing can be applied. It can be carried out by implementing special programs and is part of the exploitation of the waters.

Professional fishermen can join recreational fishery tourism programs, with terms and conditions set by a Joint Decision of the Minister of Maritime Affairs, Islands and Fisheries and the relevant Ministers.

The approval of the authority licensing the fish farm requires the creation of appropriate infrastructure for the practice of fishing tourism in areas of fish farms.

It is allowed after the relevant permission to receive passengers, for the purpose of fishing tourism from professional fishing boats. The reception of passengers from professional fishing boats only for a sea excursion or sea bath, according to the provisions of article 14 of law 2743/1999(FEK A' 211) is not allowed.

By Joint Decision of the Ministers of Maritime Affairs, Islands and Fisheries, Culture and Tourism and any other co-competent Minister, the terms, conditions and any other details for the implementation of this article are determined. Violators of the provisions of this article are punished with the administrative penalties provided by article 11 of law 420/1970 (FEK 27A'), as replaced by par.3 of article 3 of law 1740/1987(FEK 221A') and the par.2 of article 9 of law 2040/1992 (FEK 70A') (Ministry of Shipping and Island Policy, 2011)

### 7.3. Institutional Framework and Fishing Tourism Activities

The institutional framework for doing business in the field of fishing tourism was regulated relatively recently by the Law 4070/2012 (articles 176-186) and Law 4179/2013(articles 40-43).

Fishing tourism activities can be carried out:

- In the sea area where fishing is allowed within the framework of institutional commitments in force by the respective legislation and concern either special protection regimes – National Marine Parks, Nature Network – 2000/NATURA – or special commitments – e.g., specially and restricted fisheries, reserved marine areas for the protection of aquatic organisms or breeding grounds, etc., or concern central integrated approach policies, - e.g., integrated maritime policy.
- Inland surface waters – lakes, rivers, brackish ecosystems – and where fishing is permitted, within the framework of institutional commitments in force under the relevant legislation and concerning either special protection regimes – National Parks, Nature Network – 2000/NATURA – or other regulatory provisions.
- In leased parts of the marine land area, with the use of aquaculture, under the conditions set by the licensing framework of these units.

Fishing Tourism activities can be developed in conjunction with integrated coastal zone management programs.

#### 7.4. Strategic Directions of Spatial Planning and Development

Fishing tourism, concerns a dynamic form of tourism activity, in which the country is lagging behind, both in terms of the institutional framework of the permitted activities as well as in terms of taking measures to promote it.

Fishing tourism can also be a dynamic element of imported tourism, as long as the Greek seas – compared to others – remain in relatively good condition and as long as the aquatic organisms are of exceptional quality both in terms of their hygiene characteristics and in term of the tasting and gastronomic characteristics.

Through this alternative form of tourism, the visitors will come in contact with the fishing vessels, contact fishermen and learn about their traditions, the local culture and have an overall unique experience. (Ministry of Environment and Energy, 2013)

#### 7.5. Terms and Conditions for the procedure of Recreational Fishing Tourism

With the Joint Ministerial Decision no. 414/2354/12-1-2015 the “Conditions, Terms and Procedure for conducting fishing tourism by professional fishermen”, who are owners of professional fishing boats and wish to practice fishing tourism in parallel with their professional fishing activities are defined. In the context of the implementation of the above decision, the followings are provided:

Conditions for conducting Recreational Fishing Tourism from fishing vessels whose the shipowners are interested in fishing tourism:

- To have a total length up to 15 meters.
- To be equipped with a professional fishing license with tools other than bottom trawl nets(trawlers) and seabed(winch trawls).
- To meet the conditions of a professional tourist ship in accordance with the provisions of article 3 par. 1g of KYA for the subject.
- To own a certificate of airworthiness (Safety Certificate, General Inspection Protocol, Vessel Execution Permit on a case-by-case basis) which states:
  1. The number of passengers the can pick up.
  2. The length of the vessels
  3. The relevant “Orders – Instructions” without the need to issue special or other certificates.
- There should be a special accommodation for all the passengers, so that they are kept safe during the fishing activity while at the same time not obstructing it.
- To comply with the rules provided by the current legislation regarding the safety of navigation, the staffing, the hygiene and the suitability of the fishing vessel for the embarkation of passengers.

## 7.6. Procedure of Approval

Simultaneously, the decision defines the approval procedure, which provides that the fishermen concerned must submit a notice of commencement in the Fisheries Service of the

Regional Unit where the professional fishing or sponge fishing vessel shall be registered in its registers.

1. The competent authority for submitting a request for announcement for the start of fishing tourism is the Fisheries Service of the Regional Unit that keeps the file of the boat. The request is accompanied by the following required supporting documents and certificates of co-competent services:

- Application of the owner of the fishing vessel in which the fishing gear that the passengers - tourists can use is indicated, in accordance with the provisions of the KYA of the subject.
- Photocopy of the fishing license of the vessel in force
- Photocopy of the insurance coverage certificate for civil liability, according to the article 14 of law 4256/2014(A' 92).

2. The competent Fisheries Service of the Regional Government, checks the supporting documents of paragraph 1 and after finding that it is complete, requests from the Local Port Authorities a certificate for the specific fishing vessel, within their competences, that fulfills the conditions of article 3 of the KYA of the matter, and registers the approval, within five days, in the details of the vessel and the interested ship owner in a database through the Integrated Fisheries Monitoring System (OSPA).



Prior to the commencement of fishing tourism, the fishermen concerned shall inform the local Port Authority in writing of their intention to engage in fishing tourism in their area of jurisdiction.

For the transitional phase that ends with the commissioning of the full OSPA, which was scheduled for 1-6-2015, the Fisheries Services of the Regional Authorities inform the General Directorate of Sustainable Fisheries of the Ministry of Productive Reconstruction and Energy to complete the control of supporting documents and the examination of the request with a positive suggestion for the approval of fishing tourism for specific vessels. The General Directorate of Sustainable Fisheries of the Ministry of Productive Reconstruction and Energy takes care of the registration of the approval in the vessel data in the database through OSPA.

#### 7.7. Responsibilities for Fishing Tourism

- In the course of fishing tourism, professional fishermen or sponge divers shall demonstrate fishing or sponge fishing techniques in accordance with applicable national and Community fisheries legislation, using the fishing methods and gear specified in the fishing license of the vessels, with the exception of trawlers and grip drawn from the boat.
- Fishing equipment must be arranged on board in such a way that it does not impede the free and safe movement of occupants and any activity on board.
- Passenger tourists, the number of which may not exceed 12, are allowed to fish only with the fishing line, trolling and vertical gear, which must be registered in the

fishing license of the vessel. The handling of the gears is done manually and not with mechanical assistance, as well as to participate, under the responsibility of the captain of the vessel and in the implementation of fishing activities, only in tasks from the execution of which their safety is not endangered.

- The boarding of passengers for the execution of leisure trips under the conclusion of full charter contracts or the execution of daily sea voyages, according to the provisions of law 4256/2014(A'92) is prohibited.

For the regulation of issues related to the issuance of tickets and the manner of their disposal (article 40 par. 1c of Law 4179/2013), no KYA, will be issued, as long as the existing provisions on the taxation of fishermen's income are applied.

## 7.8. Sanctions

Violators of the conditions for practicing fishing tourism, in addition to other criminal administrative and disciplinary sanctions of the current legislations, are subjected to the sanctions provided in Article 182 of Law 4070/2012 as amended by Law 4179/2013 (FEK a175/08-08-2013).

Particularly:

- For the violations in matters of fisheries legislation, the sanction provided in KAN(EK) 1224/2009 of the Council are imposed in combination with the sanctions provided in article 11 of n.d. 420/1970(FEK 27 A') as in force.
- The approval of Fisheries Tourism can be revoked for a maximum of one year, with a reasoned decision of the body that issued it if the person in charge of the commercial fishing vessel violates the current fisheries or tourism legislation. This sanction is imposed in addition to the special sanctions provided by the current provisions of the Fisheries and Tourism Legislation.

After the expiration of the revocation period, the interested party may resubmit supporting documents and follow the procedure for issuing a new permit from the beginning

- After two revocations within the period of five years, the approval of Fishing Tourism is not allowed for the professional fisherman, sponge diver or the owner of a professional fishing boat. (Greek Republic, 2015)

## 7.9. Traffic Fees on Vessels Used for Recreational Reasons

The Recreational and Daily Tour Cruise Ships Fee (TEPAI) is imposed on all private and professional leisure ships and professional tourist day ships, of a total length of over 7 meters regardless of flag, in Greek territorial waters.

For the fulfillment of this obligation, the electronic application eTEPAI is implemented by the Authority for Public Revenue (Article 13 of Law 4211/2013 as in force and the joint Ministerial Decisions POL 1210/2018, POL 1214/2018, A. 1119/2019).

TEPAI is calculated per current year or current month from the date of payment and determined as follows:

- For the vessels of total length up to eight meters the TEPAI is 20 euros per month.
- For the vessels of total length of more than eight meters and up to ten meters, it is 30 euros per month.
- For the vessels of total length of more than ten meters and up to twelve meters, it is 40 euros per month.
- For the vessels of total length of more than twelve meters, the fee is 10 euros per meter per month from the first measured meter. The charge is reduced by half if the vessel is used for commercial reasons with the condition of exclusive commercial use.

By joint decision of the Ministers of Finance and Shipping and Island Policy, it is possible to provide a discount up to 30% on the vessels that are over 12 meters if they are permanently moored in the Greek Territory.

In a case of a one-time prepayment of TEPAI for a period of 12 months a discount of 10% is provided on the amount due. If the Port, Tax, or Customs Authority determines that the TEPAI has not been paid, the departure of the boat is prohibited until the payment of the fees and the calculated fine depending on the size of the vessel.

For the non-payment of TEPAI imposed by the fining authority as follows:

- For the vessels of total length up to eight meters the TEPAI is 240 euros.
- For the vessels of total length of more than eight meters and up to ten meters, it is 360 euros.
- For the vessels of total length of more than ten meters and up to twelve meters, it is 480 euros.
- For the vessels of total length of more than twelve meters, the fine is 1500 euros.

(Ministry of Shipping and Islands Policy, 2016)

#### 7.10. Instructions for the Fishing Tourism License Registration

The fishing tourism license according to the provisions of par.2. of article 4 of the KYA no.414/2354/12-1-2015 (FEK B 97/20-1-2015), is granted under the form of approval for fishing tourism with entry in the data of the boat and the interested ship-owners in the OSPA, without being required the issuance of a relevant administrative act.

The registration of the fishing tourism license is allowed by the users with access to the Assignment Code of OSPA. The relevant choice incorporated into the vessel characteristics by interfacing to real-time from the National Fisheries Register to be concentrated and the current image of the boat is available.

For this purpose, it is important to update the vessel details and ship-owners in cooperation with the Port Authorities, so that there is complete and correct display of data.

(OSPA, 2017)

### 7.11. Positive Results from the development of Fishing Tourism

The advantages of Fishing Tourism were difficult to be recognized in Europe during their first steps. Only the socio-economic aspects of the phenomenon were emphasized. The possible completion of the income for the fishermen and the reduced fishing effort they need to make are the main advantages of this activity. In addition to those, important to be mentioned are the increase in the sensitivity of the employees and the tourists for the environment, the attention that gains the part of safety and hygiene on the vessel, something that is beneficial both for the tourists and for the owners. Moreover, the diversification for the employees towards a new profession is easier because they stay in the same vessel and their general well-known environment. Also, it is noticeable the opportunity that arises for a cooperation and a synergy creation with the rest of the fishermen in order to promote this activity and make it easier to be done. Besides that, it is very important the promotion of the local cuisines and the traditional fishing products that are very attractive to the tourists.

Another effect to be considered is the in general greater sensitivity that can be developed from the tourists for the demanding reality of the fishing sector and the small fisheries. The development of fishing tourism can also enable the upgrading of fisheries structures and infrastructure.

The diversification of the activities could contribute:

- In increasing the fishermen's income and consequently the integrity of local communities and the preservation of their traditions.

- In the rise of social sensitivity and consequently the improvement of the social image of fishermen which is likely to lead to the attraction of younger people into the profession, something that is very important for the future of it.
- To the reduction of the effort for the fishermen, as part of it will be directed to activities other than the tiring intensive fishing.
- To the improvement of the quality of the fishing vessels.
- In general benefits that can be gained from the increasing tourism in the associated areas.
- To the promotion of the role of women through the principle of equality between men and women. The fishing sector in general is characterized by strong male presence, however this field opens more room for women. This type of business is leaning more towards the field of tourism than the field of general fisheries.
- The economic benefits that the associated areas can get from the increases in tourism activities.
- To the contribution of the assessment and the preservation of the natural resources of the sea through a holistic and sustainable approach, promoting this new type of tourism as well as the preservation and protection of the natural environment.
- To connect the tourist to the sector of professional fishing, with the goal to spread the culture of the sea and the coastal zone. In other words the awareness of the society for the role of the fishermen and the changes in the today's fisheries.
- To the upgrading of tourism through the development of alternative tourism and as a result a more ecological way of living.

- The extension of the touristic season and the increase of the incomes coming from tourism.

Activities related to tourism are developed dynamic and are complementary rather than different. Supporters need to promote this within the framework of the Common Fisheries Policy, in order to achieve the reduction of fishing activity and as result the sustainability of the fishing resources.

Moreover, it is important to mention that rather than alternative activities, the supplementary ones are those that can favor a reduction in fishing effort and at the same time ensuring those engaged in the fishing sector for an addition source of income.

It is a purely seasonal activity, because it has to follow touristic influx, and therefore takes place mainly from April to October (or rather from April to September and only if the season is warm during October). However, this is definitely not happening during the winter because usually the conditions of our seas are not good. The above fact clarifies Recreational Fishing Tourism as a complementary activity.

#### 7.12. The main obstacles to the development of fishing tourism

After considering the positive results from the development of fishing tourism it is very important to consider the obstacles that exist or arise from its development.

The main obstacles are:



- The low touristic traffic in some regions.
- The lack of knowledge of the phenomenon.
- The high cost of advertising.
- The difficulties in organizing the sector of fishing tourism.
- The difficulty of fishermen to adapt in areas other than fishing.

Factors that hinder the success of diversification of fishery activities:

- The characteristics of the boats. Most of them are small and of old age.
- The limited capacity of professional fishermen due to the low educational level as well as peculiarities of the fishing activity.
- The lack of advertising.
- The limitation of infrastructures and the difficulties of their development especially in protected areas.
- The administrative barriers that are mainly due to the involvement of many services and the complexity of the various processes.

If those obstacles are overcome, the activity of Recreational Fishing Tourism will add value to its core. (Pyraleimidou, 2007)

## 8. Sustainable Development and Blue Growth

### Introduction

The fast pace that the economy changes, the threat that poses the climate change, the reduction of the global resources and the general need for a peaceful and sustainable future brought the need for a direction that is organized and acceptable from every country. As a result, the SDGs were introduced to help in that effort of building this future.

### 8.1. History of the 17 Sustainable Development Goals

In 2015 all United Nations Member States adopted the 2030 Agenda for Sustainable Development. The 2030 Agenda provides a blueprint that is shared with the aim of peace and prosperity for people and the planet, now and into the future. In its core there are the 17 Sustainable Development Goals, which are imminent for all the countries in a partnership that is global. Ending poverty and other deprivations must go hand-in-hand with strategies that improve health and education, reduce inequality and spur economic growth – all while tackling climate change and working to preserve our oceans and forests.

- The SDG goals did not happen in just one day. It took decades that the UN countries worked on their development. In Rio de Janeiro, at Earth Summit, Brazil, more than 178 countries adopted Agenda 21. Agenda 21 was a plan of action to

build a partnership that is global and has its focus on the sustainable development to improve human lives and protect the environment.

- In September of 2000 at UN Headquarters in New York, during the Millennium Summit, the Millennium Declaration was adopted unanimously by the Member States. Eight Millennium Development Goals (MDGs) were illustrated and led by the Summit.
- In 2002, in South Africa there was held the World Summit on Sustainable Development. There it was adopted the Johannesburg Declaration on Sustainable Development and the Plan implementation. Global community's commitments to poverty eradication and environment was then restated that is committed by the global community. It was then built on Agenda 21 and the Millennium Declaration by including more emphasis on multilateral partnerships.
- In June 2012, in Rio de Janeiro, Brazil, Member States adopted the outcome document "The Future We Want", during the United Nations Conference of Sustainable Development (Rio+20). There it was decided, to start an inter alia in order to launch a process for the development of a set of SDGs to build upon the MDGs and to establish the Un High-level Political Forum on Sustainable Development. Mandates for future programs of work in development financing, small island development states and more were some of the measures for implementing sustainable development were some of the outcomes from Rio +20.
- A 30-member Open Working Group was set up by the General Assembly to develop a proposal on the SDGs, in 2013.

- A negotiation process on the post-2015 development agenda started by the General Assembly in January 2015. The climax of the process happened with the consequent adoption of the 2030 Agenda for Sustainable Development , with 17 SGDS on its focus, in September 2015 during the UN Sustainable Development Summit.
- Major agreements that have in their center multilateralism and international policy were adopted in 2015. Those were:
  - The Sendai Framework for Disaster Risk Reduction (March 2015)
  - Addis Ababa Action Agenda on Financing for Development (July 2015)
  - Transforming our world: the 2030 Agenda for Sustainable Development with its 17 SGDs was adopted at the UN Sustainable Development Summit in New York In September 2015
  - Paris Agreement of Climate Change (December 2015)
- The annual High-level Political Forum on Sustainable Development serves as the central UN platform for the follow-up and review of the SGDs.

Today, substantive support and capacity-building for the SDGs and their related thematic issues, are provided by the Division for Sustainable Development Goals (DSDG) in the United Nations Department of Economics and Social Affairs (UNDESA). Small Island Developing States, partnerships, the Global Sustainable Development Report (GSDR), water, energy, climate, oceans, urbanization, transport, science and technology are included. For the evaluation of UN system-wide implementation of the 2030 Agenda the DSDG plays a key role as well as for the advocacy and outreach activities relating to the SDGs. Broad

ownership of the SDGs must translate into a strong commitment by all stakeholders to implement the global goals, for the Agenda 2030 to succeed and become a reality. For the engagement to be facilitated, the DSDG give its assistance. (United Nations, 2015)

## 8.2. Sustainable Development Goals

The 2030 Agenda for Sustainable Development has 17 Sustainable Development Goals.

Those goals are integrated and indivisible, they are applied universally and they are global in nature. They respect the national policies and priorities of each country and they consider the different realities in each nation. Used as a guide, each government is setting its own national targets. Sustainable development is the goal, the Earth and its ecosystems are our common home, 'Mother Earth' is a common expression in a number of countries and regions.

The Sustainable Development Goals are the following:

- Goal 1. End poverty in all its forms everywhere
- Goal 2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture
- Goal 3. Ensure healthy lives and promote well-being for all at all ages
- Goal 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
- Goal 5. Achieve gender equality and empower all women and girls

- Goal 6. Ensure availability and sustainable management of water and sanitation for all
- Goal 7. Ensure access to affordable, reliable, sustainable and modern energy for all
- Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
- Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation
- Goal 10. Reduce inequality within and among countries
- Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable
- Goal 12. Ensure sustainable consumption and production patterns
- Goal 13. Take urgent action to combat climate change and its impacts\*
- Goal 14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development
- Goal 15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss
- Goal 16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels
- Goal 17. Strengthen the means of implementation and revitalize the global partnership for sustainable development (United Nations, 2021)

### 8.3. Sustainable Goal 14

The 2030 Agenda for Sustainable Development has 17 Sustainable Development Goals. One of them is Goal 14 which is the conservation and sustainably use of the world's ocean, seas and marine resources.

Oceans cover 75% of the surface of our blue planet and constitute of almost 99% of the biosphere. Life originated from the oceans which contain nearly 200.000 identified species however, they might be millions. The Earth is inhabitable due to the world's oceans, their temperature, chemistry, currents and life – drive global systems. Almost 30% of the global carbon dioxide produced by humans is absorbed by the ocean, countering the effects of global warming. Additionally, more than 3 billion people depend on marine and coastal biodiversity for their livelihoods and the market value of coastal and marine resources and industries is about 3 trillion dollars per year about 5% of the global GDP.

Despite its importance the oceans are heavily affected by pollution, depleted fisheries, loss of coastal habitats and other human activities. The sea is getting more and more acidification and more than 13.000 pieces of plastic litter are found on every square kilometer of ocean. The sustainable use of ocean-based resources and their conservation should be improved, the SDG 14 focuses on that and aims to address the above impacts.

(UNDP, 2021)

### 8.4. Blue Growth

Blue Growth and the Blue Economy are very important. Both of those concepts are related to one another. Blue Growth supports the sustainable growth in marine and maritime sectors as a whole with a long-term perception. On the other hand, Blue Economy refers to the use of seas and coasts for economic activities.

The Blue Growth strategy includes three components.

- Sectors with a great potential for sustainable growth are developed. Those are aquaculture, fisheries, coastal tourism, marine biotechnology, ocean energy, seabed mining.
- Elements where the blue economy gets knowledge, security and legal certainty. Those are 1) information about the sea that is given through marine knowledge, 2) maritime special planning is introduced for the ensurance that the activities at sea are sustainable managed and efficient and last but not least 3) integrated maritime surveillance so that a better idea of the action in the sea is given to the authorities.
- Strategies that are sea based and measurements that are suitable for each case in order that the countries have a better cooperation. Those are the Adriatic and Ionian Seas, Arctic Ocean, Atlantic Ocean, Baltic Sea, Black Sea, Mediterranean Sea and North Sea. (European Commission, 2021)

In the field of the fisheries and the aquaculture, Blue Growth can assist with its initiatives. Aquatic resources are promoted through Blue Growth, with the aim of assisting the communities that rely on them for their income and their food. The goal is that economic and social benefits should be maximized while the environmental degradation from activities within the fisheries and aquaculture sector are minimized. The fish demand is on



the rise and the natural resources are under pressure. It is imminent to take sustainable decisions and manage those needs in order to preserve resources for future generations.

Blue Growth for the support of the fisheries and aquaculture has 3 pillars of initiation.

- Blue production, for the enhancement of sustainability and productivity, ecosystem-based approaches to responsible fisheries and aquaculture management are implemented.
- Blue trade, for the improvement of blue markets and products available for trade, the economic development is supported, with an emphasis on developing countries.
- Blue communities, for the enhancement of food security and nutrition, decent work livelihoods and resilience to stocks. This has the goal of the empowerment and support of the local communities.

Those Blue Growth Initiatives contribute to the 2030 SDGs by improving the use of aquatic resources and conserving biodiversity.

#### 8.5. Importance of Fish and the assistance of Blue Growth to Small-Scaled Fisheries

Fish is a very important source of proteins and healthy fats. It has also long-chain fatty-acids, iodine, vitamins, minerals and calcium which are valuable nutrients for the human organism. Omega-3 fatty acids of some of the fish and some small fish that are eaten as whole, contain nutrients in their skin and bones. It is understandable that fish are almost irreplaceable in their nutrition value.

It is the main source of protein in the developing countries that do not have access to different sources of it. Moreover, the realization of fish contribution to a good overall health, has included them in many diets in the developed or middle-income countries. Especially in the diets of small children until the age of two, fish contribute a lot to their mental and physical development. (Food and Agricultural Organization of the United Nations, 2018)

According to the European Parliament which made some consultations, it was realized that small-scale fisheries need to be part of Blue Growth. This economic activity enhances wealth creation. Blue Growth with its strategies can assist the small-scale fisheries in specific and important fields:

- It can help them to implement better the CFP through guiding principles and preferential access to quotas.
- The Small-scaled fisheries can be represented in a better way. Until now, they take a small part into the EU for the important decisions that concern them.
- Help the local communities have a CLLD (Community-Led Local Development) and assist them in the diversification from the traditional fishing tactics.
- Contribute when it is possible to the local communities. This can be done with the evaluation of the socio-economic contributions of SSF to the coastal communities.
- Inform the fishermen for the advantages they can get through the application of Blue Growth strategies, as most of them are not aware of the benefits. There are changes that if made, fishermen could improve their income and many solutions could be given for daily issues.

- Give equal opportunities to the sustainable fisheries and support them through subsidization. It is also important, to support the field financially and assist it by introducing younger people trained with the needed skills.
- In addition to FAO (Food and Agriculture Organization of the United Nations), SSF can play a very important role towards sustainable fishing, by using environmentally friendly gears.
- It is importance to include and associate the fisheries sector with the tourism sector when possible.
- Make good use of foundations and proposals like the one of the New Economic Foundation (UK) with its proposal for a 'Blue New Deal'.

The EMFF regulation brings a very simple definition for the vessels of the SSF stating 'Fishing carried out by fishing vessels of an overall length of less than 12 meters and not using towed gear'. It is important for Blue Growth to assist in a more clarified definition considering the description of the vessels of the SSF. Through a holistic consideration more components should be examined, like the type of enterprise, spatial-temporal dimension of operations, how depended are on the local ecosystems, the impacts in the environment, economic behavior and their contribution to the local economy.

#### 8.6. The Need for Integrated Planning

Several environmental imbalances are in existence, especially in the coastal areas. A lot of those areas are not well-studied for their integrated activities, the different kind of

interests, and the difficulties in the coordination between government and among levels of regulation.

To compact those problems, Maritime Spatial Planning (MSP) and Integrated Coastal Zone Management (ICZM) were developed. Those tools aim to alleviate the degradation of the environmental, socioeconomic and cultural resources. They focus on the improvement of the coordination parties in order to be more capable and be able to determine solutions for coastal problems and environmental issues having in their center the organization of maritime space.

These problems, concern the EU because the coastlines cover a big percentage of its area and as a result, shared problems arise. Moreover, a lot of activities and policies of the EU are getting the attention of MSP and ICZM, such as regional, maritime, fisheries, environment, agriculture, energy and industries of the marine sector.

Undoubtedly, the fishing industry could benefit from MSP and ICZM. The interaction of SSF with the other activities applied in the area can be improved and the problems that may exist can be solved. For that reason, a flexible management is mandatory, and each party of interest should be studied, reflected and modified where it is necessary. The goal is the sustainable development of all the sectors that are developing in this area. (Research of the PECH Committee, 2017)

## 9. Research Method Concerning the Level of Interest for Recreational Fishing

### Tourism and the use of Modern Technologies

#### 9.1. Introduction

In many European countries there is a high level of interest for Recreational Fishing Tourism. Those services are not very developed in Greece. As a result, the below research was made to investigate how well spread is the knowledge for the existence of those services in Greece as well as what is the level of interest from the Greek citizens considering their possible participation in such an activity. Another important factor that is investigated is the satisfaction that the fishermen providing this services get from their profession, as many of them use them to obtain an extra income apart from fishing. Moreover, the obstacles that they face are examined and analyzed. This attempt has the goal to find out which of those problems prevent them from improving their income and services as well as what are the best practices that should be followed to maximize their gains.

In this work a reflection is made on the provision of Recreational Fishing Tourism services and the interest of the potential market. To conclude the goal is to find out if it is worth pursuing and provide those services in Greece.

To conduct the research many reviews were made. Two questionnaires were created that focused in two different interested parties, the tourists and the fishermen. Data collection proved to be very important for the completion of this study. The questionnaire is a tool that is easily distributed and in addition to that the retrieval of information is easy and can be done in a short period of time. (Aidines, 2017)

The use of the questionnaire provides some advantages over other research methods of collecting information:

- It is easy to create and to use.
- The people asked feel comfortable to answer as they please without feeling any pressure.

- It is possible to gather information from a large number of people.
- Data processing is easy.
- They are cheaper.
- It is the least time-consuming method.
- The analysis of the answers is easy and typical.

The main disadvantages of the questionnaire, is that it forces the subject to answer in a specific way and that the researcher ignores the philosophy behind the answers and the risk of vagueness arises.

In the designing of the research, special emphasis was placed on the validity and reliability of the method and research tool of data production. The evaluation of the answers was done with statistical analysis for measurable quantities and quantitative analysis for the non-measurable answers. (Lagoumtzis, 2019)

## 9.2. Sample

The 1<sup>st</sup> questionnaire was distributed through open groups of Facebook that are focused on travelling and tourism in general. An explanation and an introduction about the questionnaire was made and the people that were interested and had the time answered the questions. The 2<sup>nd</sup> questionnaire was filled through interviews made over phone-calls directly to the fishermen that provide recreational fishing tourism services. The ones that were willing to answer the questions assisted in the continuity of this research.

### 9.3. Tools

The method that was used for the collection of data was the questionnaire. The 1<sup>st</sup> questionnaire was created with the Google Docs tool. Regarding its construction, it consists of 19 questions. All the questions with the exception of the last one, were deliberately chosen to be closed-ended. The reason behind this, is that the subjects were able to give easy responses and the procession of the information could be simplistic. The same procedure was followed for the filling of the 2<sup>nd</sup> questionnaire with the difference that it was created with the Microsoft Word tool and it was filled manually during contact made via phone calls with the fishermen. The 2<sup>nd</sup> questionnaire consists of 12 questions.

Moreover, the questions in the 1<sup>st</sup> questionnaire are divided into two parts. In the first part the questions were made to identify the profile of each individual while, the other questions were those which from the research material was drawn as well as the main body of the research. Initially the questions ask about the gender and the age. Then we continue by asking about their fishing abilities, the desire to participate in a recreational fishing tourism activity and their knowledge about its existence. After that, the focus shifts on their needs considering the activity itself, and what they are, or they are not willing to do during a participation in a recreational fishing trip. The last question requests them to make their contribution with their own ideas of what might be beneficial in the questionnaire that does not exist or to state something they want to point out.

In addition to the previously mentioned, the 2<sup>nd</sup> questionnaire was created with Microsoft Word, it was filled during the month of March when long phone-calls were made with the fishermen. The questions attempt to identify their personal traits and what they are capable

of providing to the tourists through their services. Next the research continues and focuses on their willingness to cooperate if possible, with an online application that would connect them to the tourists. Finally, there are identified the possible issues that they face in their lives as fishermen that if solved they could better their services.

#### 9.4. Research Process

The questionnaires were made after making research about the services that are provided in corresponding activities abroad. The 1<sup>st</sup> questionnaire was created on the 10<sup>th</sup> of February and it was open for answers until the 26<sup>th</sup> of March. The questionnaires that were filled out from the potential tourists were 134. The 2<sup>nd</sup> questionnaire was filled through many different attempts of contact. There were filled 24 questionnaires from the fishermen that provide those services via phone calls that were made. Apart from the questionnaire the fishermen talked a lot about their problems and thus brought insights that were not clear in the beginning. Their answers were used as a sample for our data. The results have been analyzed for each question separately. Most of them were eager to talk about the difficulties they face and in general to express themselves.

### 10. Results of the 1<sup>st</sup> Questionnaire

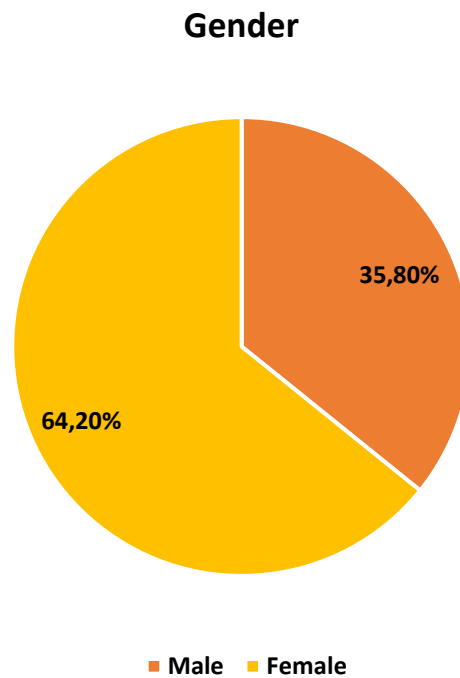
The following questionnaire was filled by people that love tourism and potentially could join the Recreational Fishing Tourism activity.



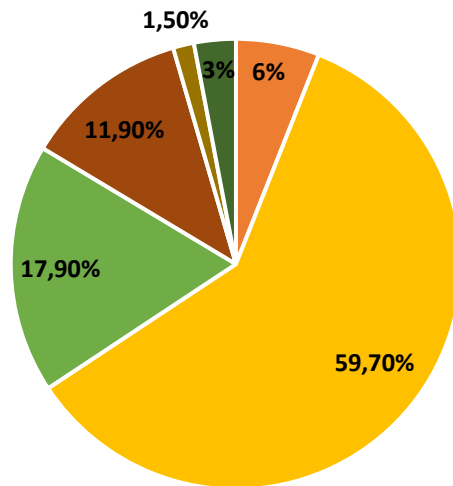
## 10.1 Profile of the questioner

The profile of the questioner is important in order to understand and study the questions as well as to find out what the most desirable target group for this activity.

### 1. Gender:



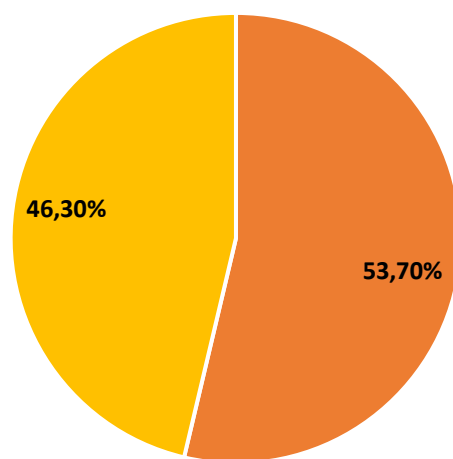
### 2. Age



■ Up to 20 
 ■ 21 to 30 
 ■ 31 to 40 
 ■ 41 to 50 
 ■ 51 to 60 
 ■ More than 60

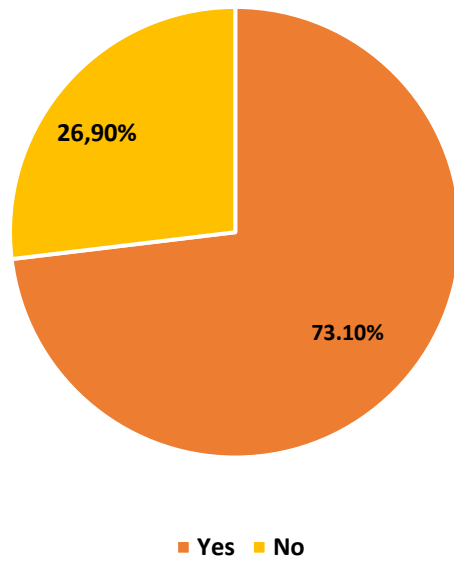
10.2. Interest about fishing and motivational factor for attending a Recreation Fishing Tourism Trip

3. Have you ever fished before?

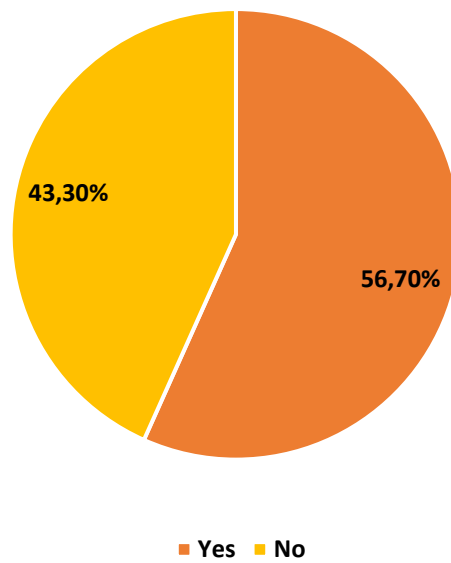


■ Yes 
 ■ No

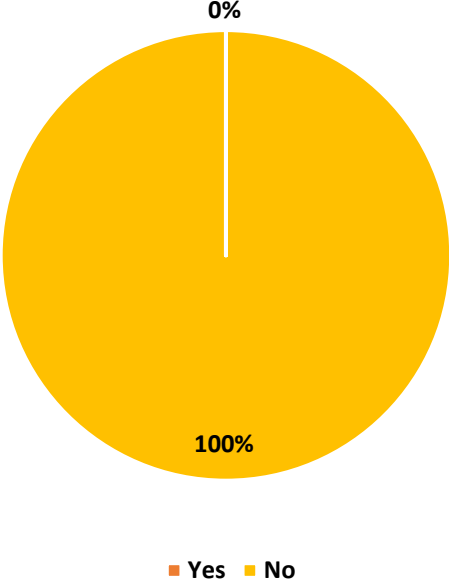
**4. Would you like to participate in a fishing activity?**



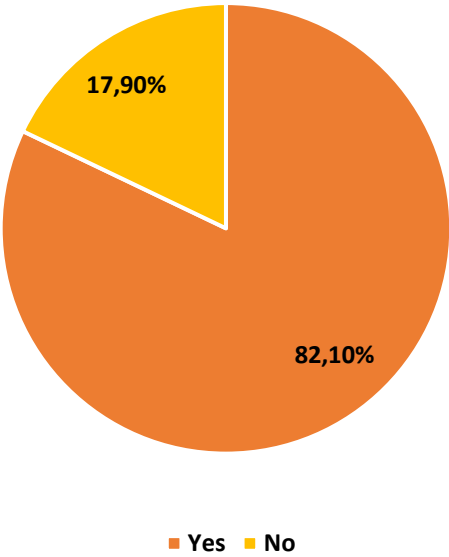
**5. Did you know that Recreational Fishing Tourism exists?**



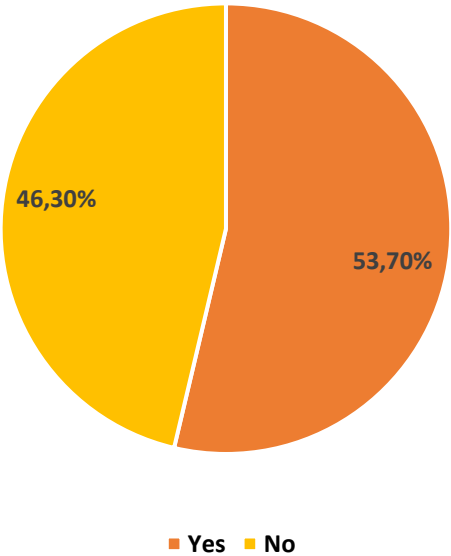
6. Have your ever participated in the activity of Recreational Fishing Tourism?



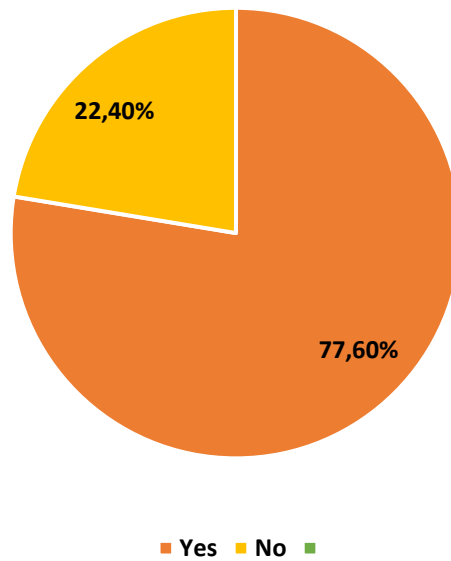
7. Would you like to combine your vacations with a Recreational Fishing Tourism activity?



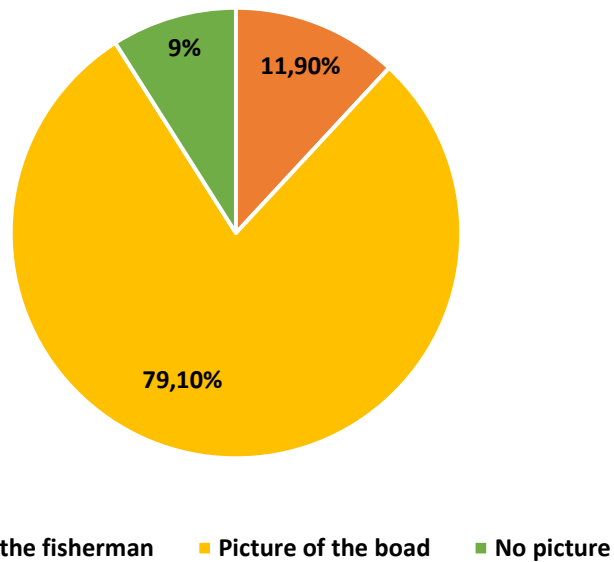
**8. Would it give you an extra motivation to pick a place for vacation if a Recreational Fishing Tourism activity was practiced there?**



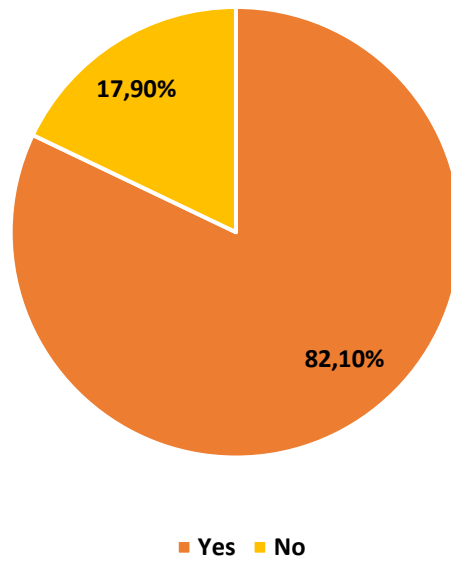
**9. Do you believe that it would be helpful if a mobile application existed that would provide you with the available Recreation Fishing Tourism Trips and through that you could book your participation in it?**



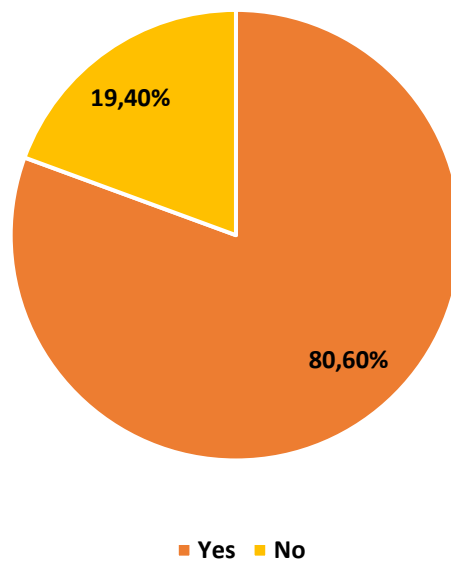
**10. Would you like in this application to be available a picture of the ship, a picture of the fisherman or pictures are not necessary for you?**



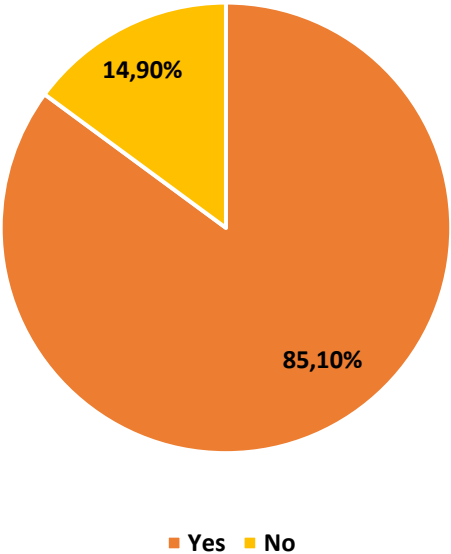
**11. Would you like to know what kind of fish are usually fished on this area?**



**12. If the procedure does not include sustainable ways of fishing, would it make you avoid it?**

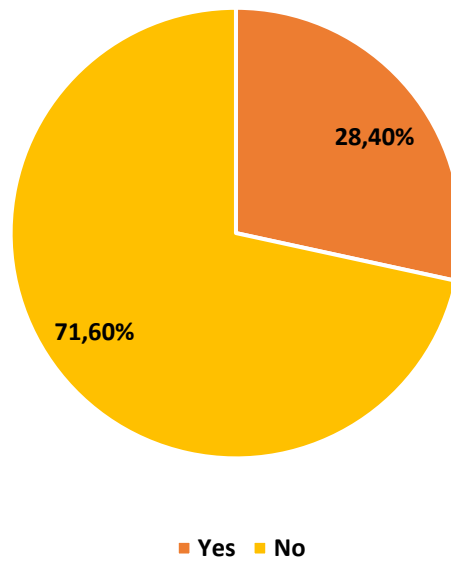


**13. If you were asked during this trip to make a donation of any amount of money for the protection of the marine environment, would you, do it?**

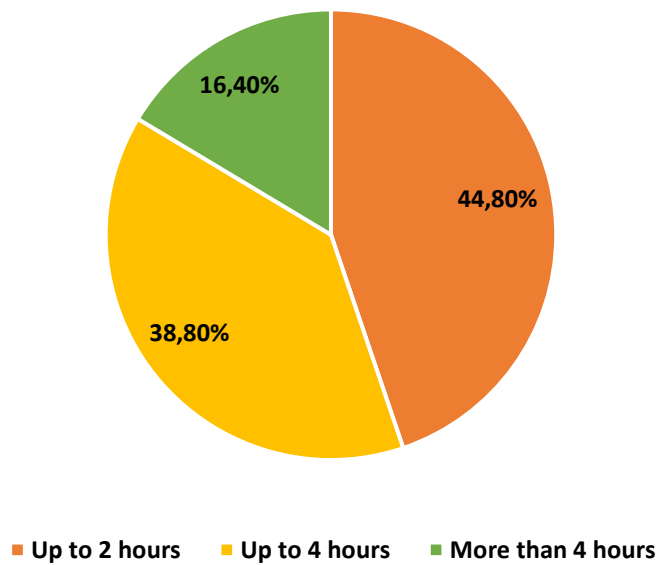


**14. Would it be a deterrent if there were other groups on board besides your own company?**

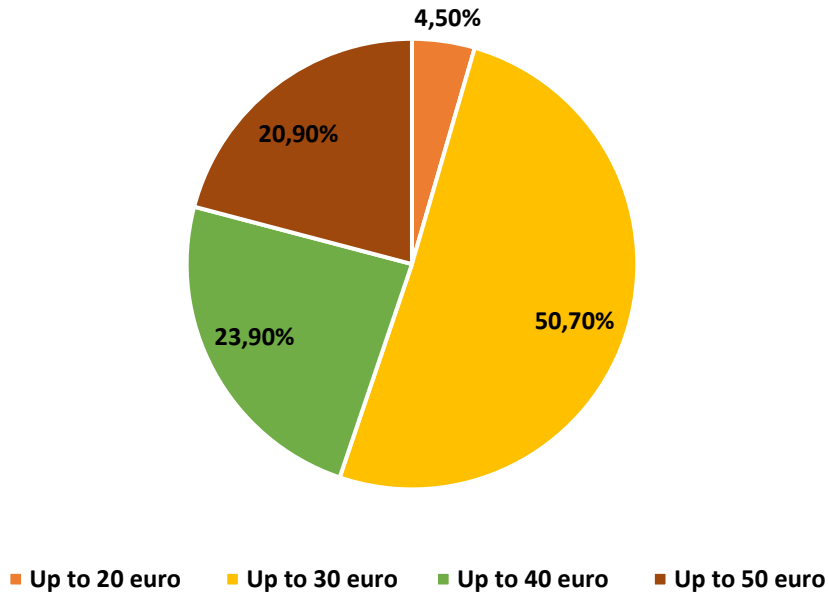




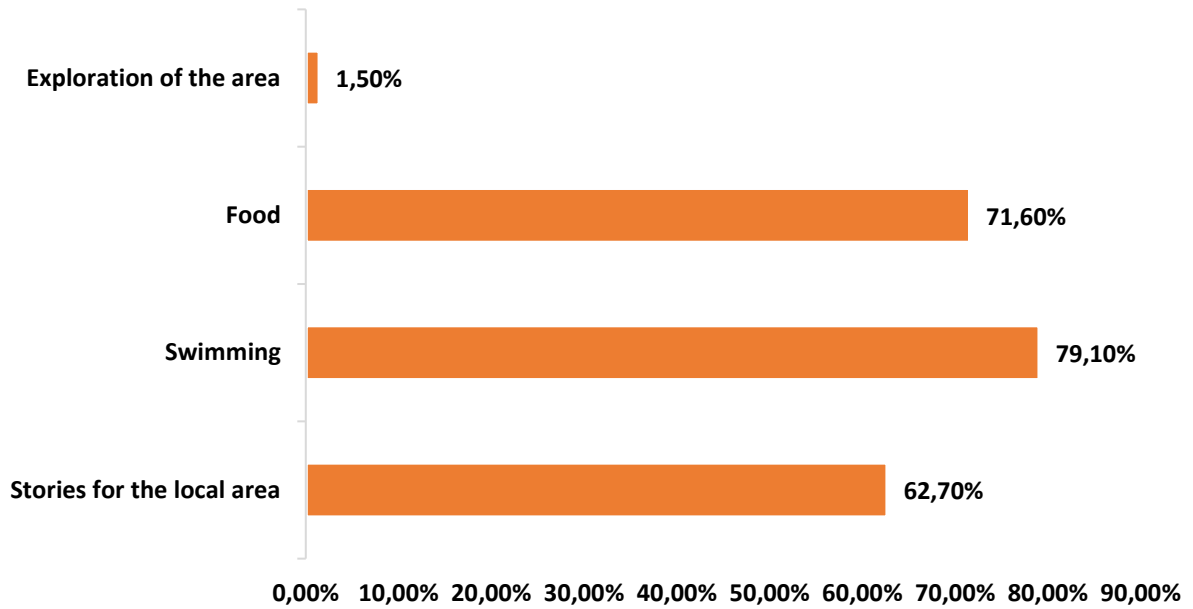
**15. How much time would you ideally like to dedicate in such a touristic activity?**



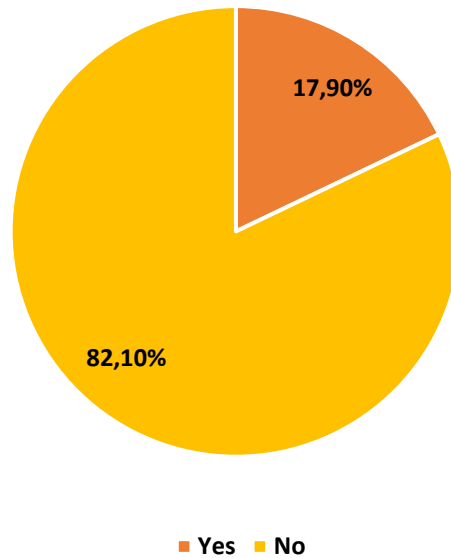
**16. How much would you be prepared to pay for such an activity?**



**17. Which of the bellow extras would you prefer to have available in the Recreational Fishing trip that you would book?**



**18. Would you be interested in the competitive fishing?**



**19. Do you believe there is something missing from the questionnaire that would be beneficial for it?**

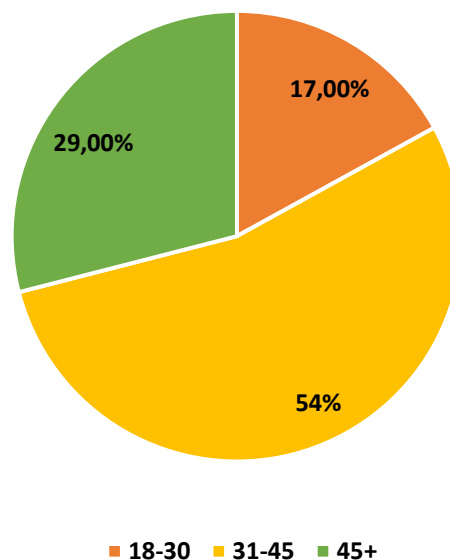
The last question was open for a personal answer. The goal was to understand what might be missing from the questionnaire and let the people that answered it to contribute with their own ideas. The vast majority of the people answered that they do not want to make any addition or that they are satisfied from the questionnaire in general. From the rest of them, a big percentage requested further and descriptive analysis of the equipment used during the fishing activities. A smaller part proposed that it would be beneficial for the participants to be able to create their own trip packages picking the place of visit, the length of the trip

and equipment that they would like to use. Furthermore, some suggestions were made for discounted prices if a group of friends is attending this activity. Finally, some people stated that they would like to have further information about Recreational Fishing Tourism as they were not familiar with its definition.

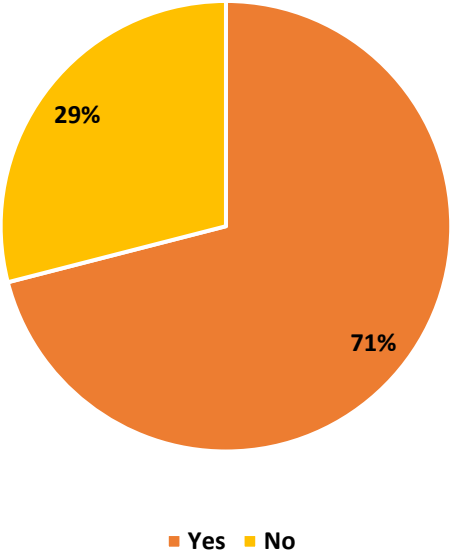
## 11. Results of the 2nd Questionnaire

The 2nd questionnaire was filled by fishermen that provide the services of Recreational Fishing Tourism.

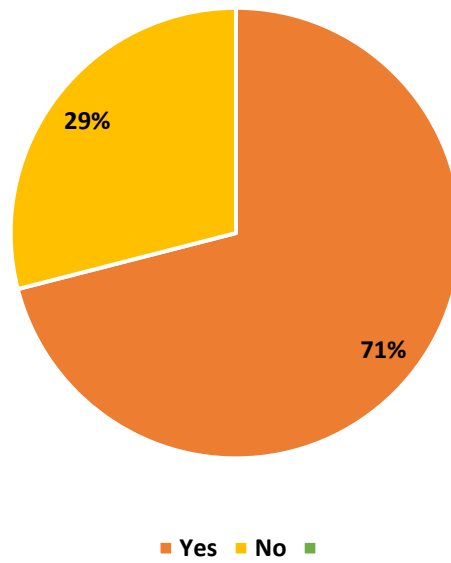
### 1. What is your age?



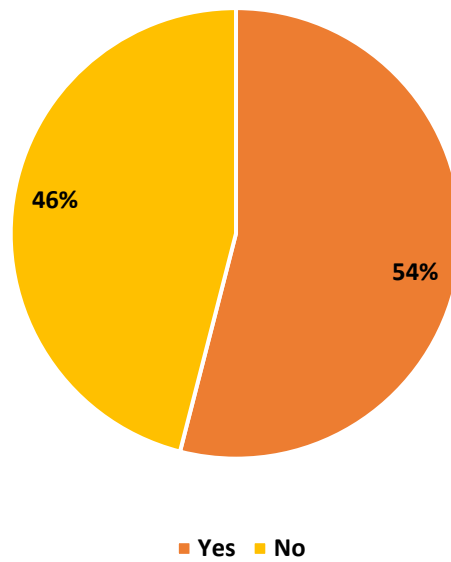
**2. Are you satisfied from the incomes you got from the provision of Recreational Fishing Tourism services up before the Covid-19 pandemic?**



**3. Would you be interested, in subscribing to an online platform that through that people would be able to book a ticket in order to attend your services?**

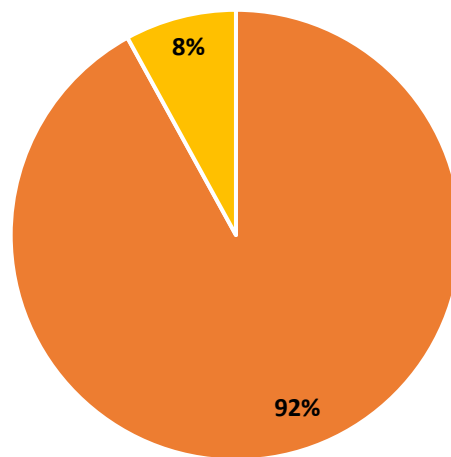


4. Are you working with a travel agency?



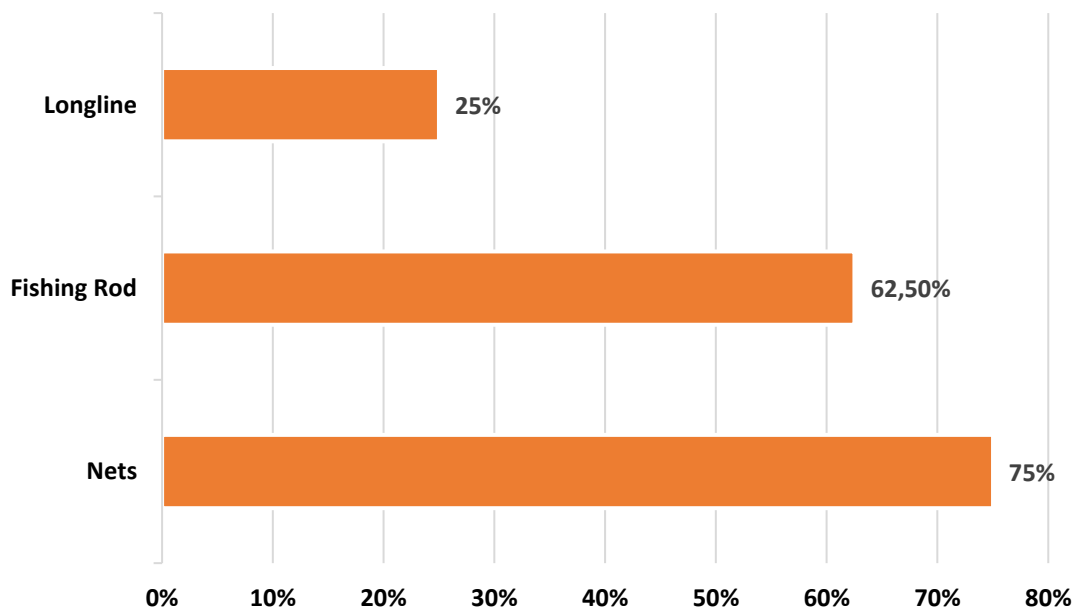
v

5. How many people are allowed on your boat during the fishing tourism trips?

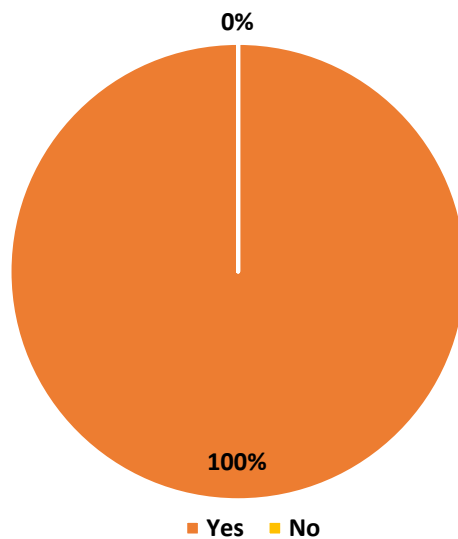


■ 12 persons ■ 9 persons

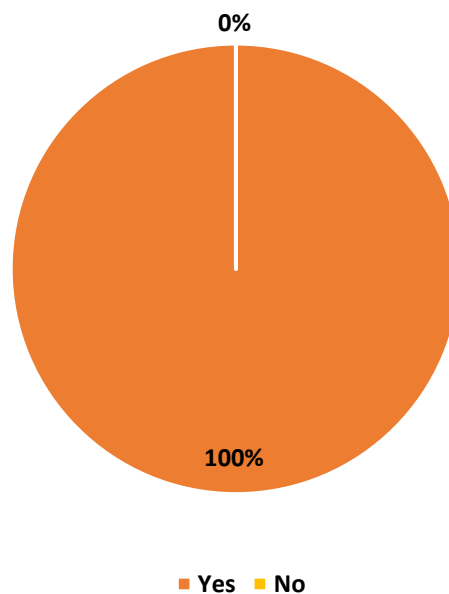
**6. What equipment do you use for the fishing activities?**



**7. Do you offer food and drinks during the trips?**

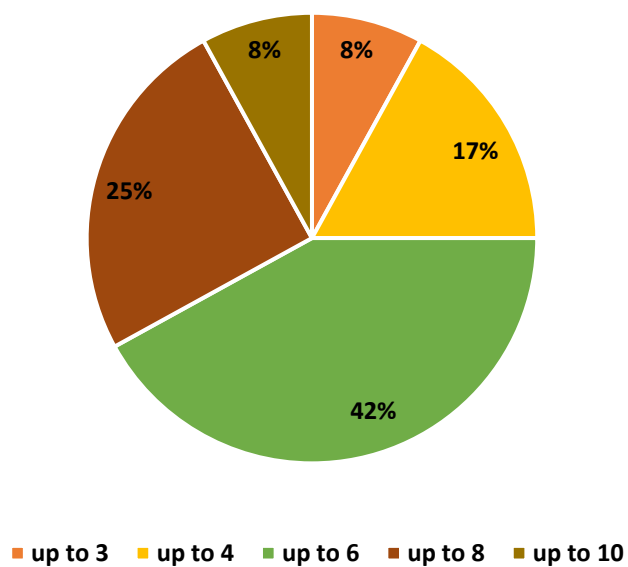


**8. Do you combine the fishing activity with a stop on a beach for swimming?**

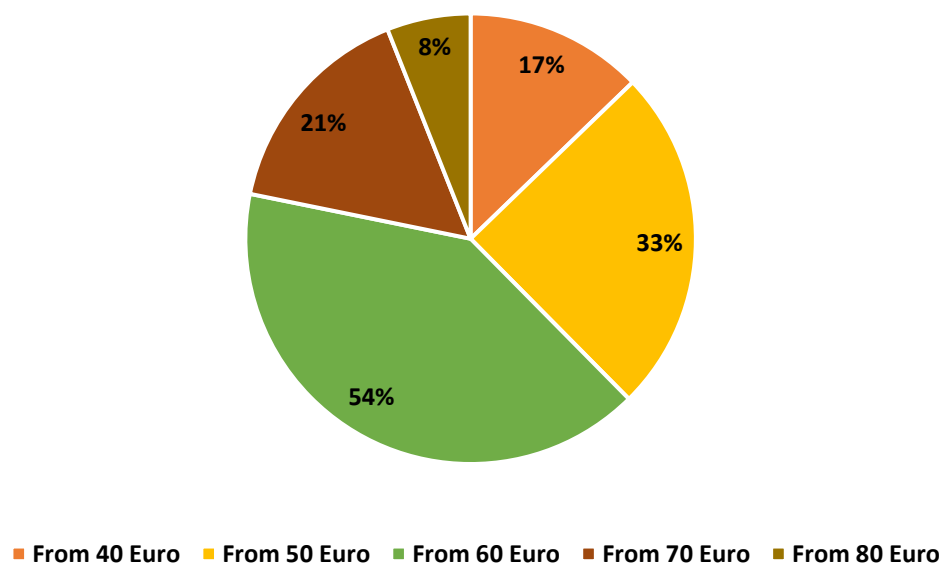




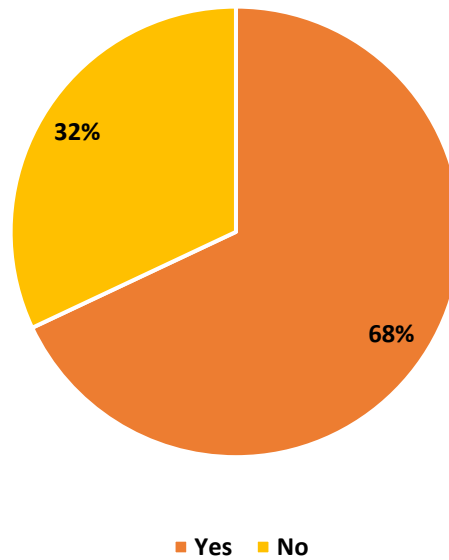
**9. How many hours do the fishing tourism trips that you offer last?**



**10. What are the approximate prices offered?**



**11. In case you cooperate with an online booking platform, are you willing to offer your prices, ideally weekly, for at least a percentage of your seats in order to make it easier for the interested parties to book their ticket?**



**12. Is there anything you believe that if solved would facilitate your work?**

The last question of the 2<sup>nd</sup> questionnaire, was again an open question for a personal answer. The purpose was to let the fishermen speak freely, express themselves in order to get a general idea of how they feel and additionally to find out problems that could be an issue which have not discussed yet.

- The 20% of the fishermen answered that they do not face any problems in their daily working lives, they are satisfied, well organized and gain very good incomes from this activity.

- A subject of concern for the vast amount of the fishermen, was that their profession is not promoted well-enough by the government to the tourists. They need assistance and find it difficult to advertise their services.
- There is a lack of young and educated people in the profession. Most of the traditional fishermen are of older ages and cannot easily utilize modern technology. They also have a lack of knowledge for foreign languages and they need younger people in this field to assist them.
- The almost non-existence training for their services is an indication that the sector need further development.
- It is not required from those that apply the services to be trained in first aid practices. It is believed by many people in the sector that this should be an essential prerequisite as in case of an accident lives could be saved.
- They want the traffic fees taxation that it is implemented in their vessels to be removed. This is a new burden imposed on them that brings a lot of pressure in their daily lives. An extra reason that supports their argument is that they are obligated to pay two separated traffic fees. One for the use of their vessel for fishing reasons and one for the Recreational Fishing Tourism services that they offer.
- In order to be helped for the provision of their services the fishermen request financial support and tax reduction.
- Differentiation through a lawsuit from recreational ships that provide corresponding services where the owner is not a fisherman is something they support. Many fishermen contend that this brings unfair competition and believe

that more taxation should be applied to those that do not meet the above requirement or they should be even prohibited from applying the fishing tourism activities.

- The monitoring of the large vessels in order to be prevented from overfishing which decreases the amount of fish the small-scaled fisheries catch.
- It was advocated by some of the fishermen that the government wants to reduce their numbers. The occasional opportunities arise for them to retire their vessel is the prove ot that as they believe that this is a means of weakening and does not support the small fisheries.
- It was suggested that the fishermen are one of the main defensive mechanisms of Greece against the maritime boarder violations. Many of them fish near the boarders and they report to the authorities anything unusual they notice thus assisting the Greek army to make a better patrolling of the endagered areas.

## 12. Discussion

### 12.1. Discussion Concerning the 1<sup>st</sup> Questionnaire

Considering the results of the data processing collected though the 1st questionnaire, conclusions were made on the responses of the people that like to travel and potentially could join a Recreational Fishing Tourism activity. The focus is on their personal

characteristics and then in the necessities for them to join this activity as well as the price range indications.

In particular, considering the profile of a person that is more likely to attend such an activity, the conclusion is that women are more curious about alternative tourism and thus are the most possible attendants of a Recreational Fishing Tourism trip. The age groups that are interested in the most part are younger people with the vast majority of them to be between 21 and 30 years old. In contrary, older people are less likely to attend this and as the sample's age is getting older the interest decreases proportionally.

Regarding the peoples approach to fishing in general, it was surprising that numerous have never fished before. The reason that this was unexpected is that Greece has a huge coastline, and the sea is easily accessible for most of the people. Moreover, fishing in Greece is a traditional practice as the profession of the fisherman played a very important role in the past and many people had ancestors that worked in this sector. Despite this fact, a remarkably amount is willing to participate in a fishing activity. This proves that the interest for the sector is still in existence and most likely the reason that they have not attended it yet is that other activities are promoted more, and the need extra gear to do it.

In the field of Recreational Fishing Tourism in general it was unforeseen that almost half of the people that gave their answers had not heard before about the existence of it. It was also astonishing that none of them had ever participated in such an activity regardless that most of them would like to. It would give them extra motivation and curiosity to pick a place for vacation if this kind of activity was applied in the area. The above results, demonstrate that the field is not well advertised using a modern approach. Although the licenses of the fishermen that apply it are less than 200, considering the results of the questionnaire, at

least a few should have participated at some point. It is apparent that there are many possible participators and that there are good prospects for the sector.

The fact that the people believe that the existence of a mobile booking application would be helpful and easier for them to book their place in such trips, supports the lack of good advertisement and confirms the absence of a modern approach that goes hand in hand with today's technology. The answerers are used to the easy access of information from their mobile phones, and they would like to be able to review the provided services. It was obvious from their answers that they like to have more data and pictures in the most part, from the boat and the fisherman to the types of fish that are usually fished in the area of their choice. An application like the one mentioned above solves this issue. Another important factor for the potential tourists when attending a trip, is to feel that the tools used during the fishing activity are environmentally friendly and do not harm it. In the most part they are aware of what impact each of their actions might have towards nature and the local habitants of each area they want their preservation, and they are even willing to support a good cause by making donations if they are asked to do so.

People participating are open in socializing and would like to have other participants in the trips besides their own friends and company. Their ideal trip in the most part is 2-4 hours, it costs 30-40 Euro, and they would really like to have apart from fishing, swimming opportunities, traditional food, and stories from the locals that will help them learn more about the area, its history and its characteristics. A full experience and a holistic approach in general seems to be the key for a successful trip and a satisfied customer. However, it is important to acknowledge that the people that answered this questions as mentioned earlier have not participated in one before so the idea they have for the length and prices might vary depending on the benefits they get. Furthermore, they chose this trips for

recreational reasons and they are not very willing to participate in events like a competition between them for the biggest fish catch.

Lastly, when they had the chance to make their own independent additions or comments for the questionnaire, a lot of them asked information and guidance to get a clearer idea for the field and understand it better. This is another proof of an absence of good advertising practices. On top of that, some stated that they would like to have full control on the trip. This means that they want to pick the place, the time and the gear. It was also mentioned that discounts in prices for families and for group bookings could act beneficial and attract more people.

## 12.2. Discussion Concerning the 2nd Questionnaire

The primary purpose of the second questionnaire was to have contact with the fishermen, investigate and learn directly from them some personal information and therefore to find out their willingness to use online methods for their assistance. It was also a way to understand the services they provide and have available, plus to examine if the needs of the tourists are in alignment with those that they offer. Eventually the last part was equally important as they had the opportunity to express themselves freely, speak about the problems they face, in their attempt to run this business, that if fixed they could have a more satisfying income. The big advantage that the 2<sup>nd</sup> questionnaire in comparison to the 1<sup>st</sup> was that it was filled via a phone call and after each of their answers most of them made some additional comments which were proven very useful for this study.

Despite the fact that in the fishing sector most of the fishermen are of older ages, in Recreational Fishing Tourism the owners of the vessels tend to be in younger age groups, between 18 and 45. This makes sense because, to coordinate such activities a person is needed that has more energy as its role is dynamic and adaptive. The fact that the communication with the tourists is extensive shows that a traditional fisherman would not be able to easily manage this situation, as many of them do not speak the English language. Additionally, in Greece Recreational Fishing Tourism is a new practice. Younger people are easier to try a different approach in their profession and utilize this opportunity to get an additional income.

In the most part the fishermen were satisfied from their incomes up before the Covid-19 pandemic. Many of them mentioned that this activity brought them the opportunity to gain easier and safer money. The fisheries are getting a great reduction according to them, especially in the latest years. As a result, it is much more difficult to support their businesses. Through this activity, even if they catch less fish, they gain a good revenue, and this helps them to be able to have the choice of when to go for fishing or not as they face fewer financial hardships. A typical example is that during a day with a bad weather they can stay in their home rather than risking their lives as many of them said. It is also important to mention that as they do not need to catch many fish, they apply less pressure to the local marine ecosystems during the touristic periods and therefore they have better possibilities to have bigger catches during the winter. From those that they were not satisfied, a big percentage of them are applying those services during the last 3 years. Some of them explained that the first year was exploratory for them and after that the pandemic begun which brought them a lot of problems and on most occasions much less tourists were available. So, it is too soon to tell if it was a successful experiment for them as the



conditions were not normal. The above show that it is a successful sector to work at with a lot of gains and offer multiple benefits to the local economy.

The answers were shared when they were asked if they are advertising their services through a travel agency. The ones that do not use one, try to promote their trips in the port verbally or with leaflets by trying to attract the passengers. On the other hand, most of them are willing to subscribe in an online booking platform if offered to do so. From those who do not, some are very well established in their field and they earn very good revenues as they said, this make them to believe that they do not need further assistance. From the rest of them, this happens because they have trust issues, and they prefer not to have a mediator. The reason behind that is that they believe that they would be applied with high charges. The above results show that even though the sector is not well promoted by the government, the fishermen have not taken the proper measurements to support and advertise their work. However, the fact that they are of young age as mentioned before makes them easier accustomed to modern technologies and thus easier to adopt them.

The analysis showed that most of the fishermen own boats that up to 12 people are allowed, they provide their customers with beverages and try to amuse them by finding a beach area that they would be able to swim. They even cook on the boat the caught fish or give it to them after the trip to cook the fish on their own. This means that they understand the importance of the full experience trip that the potential tourists want and are aligned with their demands according to the previous questionnaire.

The packages offered by the fishermen are in the most part 5 to 6 hours and ascending. There are packages of more the 6 hours and less than 4 , but few of the fishermen offer them as they do not get a lot of profits. This is so because in the first case the tourists attending long trips are less due to the high prices and accordingly in the latter case the

incomes are not so beneficial comparing to the costs of the gas and the food that they offer. Furthermore, the prices that the fishermen offer are predominately of 60 Euro and more. It is important to mention, that a lot of them stated that they could make personal packages to the tourists if they want to travel more hours or in a private trip for a higher price. There are many occasions as they said that occur deals like this. This does not align well with the demands of the tourists as they are willing to travel for fewer hours predominately, and at the same time they want lower prices. Nevertheless, the fact that no one of the answerers have attended such a trip before might be the reason behind this difference in supply and demand.

Another reason for concern is, that even if they cooperate with the mentioned before online platform, a lot of them are now willing to offer their prices online. This happens because they are afraid that the other fishermen offering the same services would adjust their prices accordingly for competitive reasons and it could harm their business in the long run.

### 13. Suggestions

Fishermen are getting more information about the gains they have by offering those services and are increasing in number, though not in a very fast pace. New and young people working on this sector are very few. This might be the chance to create a training strategy for the individuals that want to work in this sector. They could be helped to learn in fast-pace environments and get them certified for the necessary needs of the profession.

It is also true that the fisheries are decreasing, and that the sea cannot support all those fishermen as the fish populations need to rest for longer periods in order to come back to the levels of the past. The government following the SDGs could support the switch of the fishermen's services from traditional fishing to Recreational Fishing Tourism. This could give them the solutions needed for this environment and economical threat and lead to a sustainable future supporting the development of a sector that has a great history in Greece and a lot of families live from it.

There is not a well-organized platform in existence that someone can book a trip on its own and be informed about the services and the place. In many cases tourists find out about it by chance when they arrive in their vocational location and they pass by the port during their stroll. The main idea after this study is, to create a mobile application – platform that everyone can have access to it through his phone. The potential company will be active as an intermediary company that will be focusing on the connection of the interested tourists and the fishermen that provide services of recreational fishing tourism. To be more specific, the company will engage to inform interested visitors of our country or people from Greece that want to go on a vacation and a recreational fishing rod trip about the availability of services in the place of their choice. The interested party will be able to scroll down the available services, find more about the place of their interest, the boat and the trip and finally they will be able to book the trip they want paying via online methods.

The first concern of the company will be to consolidate in the Greek market, gaining the trust of the consumers public and the fishermen that provide the above services. The business vision is to attract tourists to visit Greece for recreational fishing tourism reasons and the experience that will come through it.

The goal of the company, of course is that of any for-profit company. In other words the profit and its gradual maximization while maintaining and improving its quality of services provided but also through the provision of new, innovative and integrated services to respond as much as possible in a better way to the ever-increasing consumer's needs.

The main services provided by the company will be the following:

- Connection of the tourist with the provider of recreational fishing tourism activities via online methods.
- Making available the prices, the area, the fishing methods and the type of the vessels that will be used.
- Booking and ensuring the participation of the tourist to the trip of his choice.
- Solving any problems that might occur during this procedure or if any changes are made.

After this research, it is obvious that the sector is in its very beginning. The main problem is that it is not easy to persuade the traditional fishermen to work in this field and that they get very hesitant in many cases when you try to make contact. It is clear that they are defensive and also, that they have to trust someone a lot before they work with him. To counter this problem and eliminate their concerns, they need to be offered personal time and extra reasons to feel secure for any unfair competition that might arise as well as working on solutions when situations like this occur.

## 13. References

Aidines, Athanasios. 2017. Methods of Social Research. 5<sup>th</sup> ed.

Archipelagos. 2015. Institute of Marine Conservation.

<https://archipelago.gr/en/our-work/marine-conservation/fisheries/>

(Accessed 2021-02-18)

Blue Growth. 2021. European Commission.

[https://ec.europa.eu/maritimeaffairs/policy/blue\\_growth\\_en](https://ec.europa.eu/maritimeaffairs/policy/blue_growth_en)

(Accessed 2021-03-05)

ESPA. 2020. OP Fisheries and Maritime.

<https://www.espa.gr/en/pages/staticOPFisheriesMaritime.aspx>

(Accessed 2021-03-10)

European Commission. 2013. Common Fisheries Policy.

[https://ec.europa.eu/fisheries/cfp\\_el](https://ec.europa.eu/fisheries/cfp_el)

(Accessed 2021-03-15)

European Commission. 2018. EU budget: Commission proposes a new fund to invest in the maritime economy and support fishing communities.

[https://ec.europa.eu/commission/presscorner/detail/en/IP\\_18\\_4104](https://ec.europa.eu/commission/presscorner/detail/en/IP_18_4104)

(Accessed 2021-03-15)

European Commission. 2018. European Maritime and Fisheries Fund.

[https://ec.europa.eu/fisheries/sites/fisheries/files/docs/body/op-greece-fact-sheet\\_en.pdf](https://ec.europa.eu/fisheries/sites/fisheries/files/docs/body/op-greece-fact-sheet_en.pdf)

(Accessed 2021-03-18)

European Commission. 2021. Discards.

[https://ec.europa.eu/fisheries/cfp/fishing\\_rules/discards\\_en](https://ec.europa.eu/fisheries/cfp/fishing_rules/discards_en)

(Accessed 2021-03-18)

European Parliament. 2017. Research for PECH Committee: Small-scale fisheries and “Blue Growth” in the EU,.

[https://www.europarl.europa.eu/RegData/etudes/STUD/2017/573450/IPOL\\_STU\(2017\)573450\\_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/STUD/2017/573450/IPOL_STU(2017)573450_EN.pdf)

(Accessed 2021-02-03).

Eurostat Statistics Explained. 2020. Fishery statistics.

[https://ec.europa.eu/eurostat/statistics-explained/index.php/Fishery\\_statistics#Fisheries: the factors of production](https://ec.europa.eu/eurostat/statistics-explained/index.php/Fishery_statistics#Fisheries:_the_factors_of_production)

(Accessed 2021-03-21)

Food and Agriculture Organization of the United Nations. 2018. Achieving Blue Growth. Building vibrant fisheries and aquaculture communities.

[http://www.fao.org/policy-support/tools-and-publications/resources-  
details/en/c/1234976/](http://www.fao.org/policy-support/tools-and-publications/resources-details/en/c/1234976/)

(Accessed 2021-03-20)

Greek Government. 2020. Newspaper of the Government of the Hellenic Republic. 10  
September 2020.

[https://www.aade.gr/sites/default/files/2020-09/a\\_1201\\_fek\\_2020.pdf](https://www.aade.gr/sites/default/files/2020-09/a_1201_fek_2020.pdf)

Greek Government. 2020. Newspaper of the Government of the Hellenic Republic.  
20 January 2015.

<https://www.e-nomothesia.gr/kat-tourismos/kya-414-2354-2015.html>

(Accessed 2021-02-26)

Hellenic Republic. 2020. Greek fishing fleet – Report of 2019.

[http://www.alieia.minagric.gr/sites/default/files/basicPageFiles/Annual%20Fleet%20Report  
%202019.PDF](http://www.alieia.minagric.gr/sites/default/files/basicPageFiles/Annual%20Fleet%20Report%202019.PDF)

(Accessed 2021-02-25)

Ikkos Aris. 2019. The contribution of Tourism to the Greek economy 2018.

[https://www.maritimes.gr/news/uploads/uploads/2019\\_SymvolhTourismou-2018.pdf](https://www.maritimes.gr/news/uploads/uploads/2019_SymvolhTourismou-2018.pdf)

(Accessed 2021-03-10)

Lagoumtzis Georgios. 2019. Research Methods in the Health Science.

[https://repository.kallipos.gr/bitstream/11419/5360/1/01\\_chapter\\_04.pdf](https://repository.kallipos.gr/bitstream/11419/5360/1/01_chapter_04.pdf)

(Accessed 2021-03-12)

Library of European Parliament. 2013. Discarding fish under the Common Fisheries Policy.

[https://www.europarl.europa.eu/RegData/bibliotheque/briefing/2013/130436/LDM\\_BRI\(2013\)130436\\_REV1\\_EN.pdf](https://www.europarl.europa.eu/RegData/bibliotheque/briefing/2013/130436/LDM_BRI(2013)130436_REV1_EN.pdf)

(Accessed 2021-03-12)

Ministry of Environment and Energy. 2013. Article 06: Special – Alternative Forms of tourism, G3, G3.1.

<http://www.opengov.gr/minenv/?p=5145>

(Accessed 2021-03-14)

Ministry of Shipping and Island Policy. 2016. Article 52: End of Pleasure Ships and Day Ships.

<http://www.opengov.gr/ynanp/?p=583>

(Accessed 2021-03-14)

Ministry of Shipping and Island Policy. 2011. Article 20: Fishing Tourism.

<http://www.opengov.gr/ynanp/?p=14>

(Accessed 2021-03-15)

Nakos, Pasxalis. 2013. Fishing in the Greek Economy: the situation today and the prospects.

Bach. Diss., Technological Educational Institution.

<https://docplayer.gr/10130539-Ptyhiaki-ergasia-alieia-stin-elliniki-oikonomia-i-simerini-katastasi-kai-prooptikes.html>



Nasto, Christina, Michailoglou Aikaterini. 2015. Alternative forms of Tourism. Bach. Diss., Technological Educational Institution of West Attica.

<http://repository.library.teimes.gr/xmlui/bitstream/handle/123456789/3527/ΕΝΑΛΛΑΚΤΙΚΕΣ%20ΜΟΡΦΕΣ%20ΤΟΥΡΙΣΜΟΥ..pdf?sequence=1&isAllowed=y>

OSPA. 2017

[https://ec.europa.eu/oceans-and-fisheries/publications-list\\_en](https://ec.europa.eu/oceans-and-fisheries/publications-list_en)

(Accessed 2021-02-10)

Pagiata, Georgios, 2006. Recreation Fishing Tourism Cyprus, Principles & Guidelines for its development of Fishing Tourism in Cyprus

[http://www.moa.gov.cy/moa/kea/kea.nsf/90196CA708B0E3BCC2257E3700261B21/\\$file/Αλγευτικός%20Τουρισμός.pdf](http://www.moa.gov.cy/moa/kea/kea.nsf/90196CA708B0E3BCC2257E3700261B21/$file/Αλγευτικός%20Τουρισμός.pdf)

(Accessed 2021-02-15)

Papageorgiou, Argiro. 2013. The Evolution of Tourism and its Alternative Forms: The Greek Case. Bach. Diss., University of West Attica.

<http://okeanis.lib.puas.gr/xmlui/handle/123456789/2375>

Place of Spatial Development, Planning and Environment Inspections. 2003. Alternative Tourism and its differentiated characteristics.

[https://www.academia.edu/2829029/Ο\\_εναλλακτικός\\_τουρισμός\\_και\\_τα\\_διαφοροποιητικά\\_χαρακτηριστικά\\_του](https://www.academia.edu/2829029/Ο_εναλλακτικός_τουρισμός_και_τα_διαφοροποιητικά_χαρακτηριστικά_του)

(Accessed 2021-02-10).

Pyraleimidou, Dimitra. 2007. Study for the Possibility of the Development of Fishing Tourism in Cyclades and a Support Measure of Areas that Depend in Fishing. Bach. Diss., University of Patra.

[https://nemertes.lis.upatras.gr/jspui/bitstream/10889/641/3/Pyraleimidou\\_Nimertis.pdf](https://nemertes.lis.upatras.gr/jspui/bitstream/10889/641/3/Pyraleimidou_Nimertis.pdf)

Service of Statistics. 2020. Marine Fishing Research with motor vessels: year 2019

<https://www.statistics.gr/documents/20181/d514250c-82dd-4d22-b1b3-e98463131487>

(Accessed 2021-02-03).

Stergiou, I. Konstantinos and Tsikliras, X. Athanasios. 2015. Fishery biology and fisheries. Greece: Kallipos

<https://repository.kallipos.gr/handle/11419/2685>

(Accessed 2021-04-10).

Triarchi, Evi and Karamanis, K. 2017. The evolution of alternative forms of Tourism: a theoretical background. Business and entrepreneurship Journal, Scienpress Ltd. 6(1). page 3.

[https://ideas.repec.org/a/spt/busent/v6y2017i1f6\\_1\\_4.html](https://ideas.repec.org/a/spt/busent/v6y2017i1f6_1_4.html)

(Accessed 2021-04-02).

Tyri, Kalliopi. 2017. Global Tourism Trends. Bach. Diss. University of Piraeus.

<http://oceanis.lib.puas.gr/xmlui/bitstream/handle/123456789/3850/ΤΥΡΗ%20ΚΑΛΛΙΟΠΗ%20Α.Μ%2012290.pdf?sequence=1&isAllowed=y>

United Nations. 1963. Conference of International Travel and Tourism.

<https://digitallibrary.un.org/record/723571>

(Accessed 2021-03-15).

United Nations. 2015. The 17 Goals, Department of Economic and Social Affairs, Sustainable Development.

<https://sdgs.un.org/goals>

(Accessed 2021-04-10).

United Nations Development Programme. 2021. Goal 14: Life Below Water.

<https://www.undp.org/content/undp/en/home/sustainable-development-goals/goal-14-life-below-water.html>

(Accessed 2021-02-20)

United Nations. 2021. Transforming our world: the 2030 Agenda for Sustainable Development

<https://sdgs.un.org/2030agenda>

(Accessed 2021-04-14).

UNWTO. 2020. Glossary of Tourism Terms.

<https://www.unwto.org/glossary-tourism-terms>

(Accessed 2021-02-27)

Vielmini, Ilaria. 2017. Untying the Mediterranean Gordian Knot: A Twenty First Century Challenge for Fisheries Management.

[https://www.researchgate.net/publication/318156402 Untying the Mediterranean Gordian Knot A Twenty First Century Challenge for Fisheries Management](https://www.researchgate.net/publication/318156402_Untying_the_Mediterranean_Gordian_Knot_A_Twenty_First_Century_Challenge_for_Fisheries_Management)

(Accessed 2021-03-12)