

# Overfishing in the Mediterranean Sea

Economic and Social Council



Shattered Vows: Tracing the Devastation Caused by Violating Human Rights



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# Introduction

The Mediterranean Sea, often revered for its historical significance and breathtaking beauty, is facing an unprecedented crisis that threatens not only its delicate marine ecosystems but also the socioeconomic fabric of the nations surrounding its azure waters. By definition, overfishing is the net depletion of fish stock due to the rate of fish being caught exceeds the rate at which fish can reproduce. Overfishing, a multifaceted challenge with far-reaching consequences, has emerged as a pressing issue demanding urgent attention from the international community. As we convene within the Economic and Social Council, it is imperative to delve into the intricate web of factors contributing to the overexploitation of marine resources in the Mediterranean and explore viable solutions to safeguard the region's ecological and economic sustainability.

The Mediterranean Sea, bordered by 23 countries, holds a pivotal role in the livelihoods of millions of people who depend on its fisheries for sustenance and economic prosperity. The historical significance of this region as a cradle of civilization and trade amplifies the urgency to address the perilous state of its marine ecosystems. The increasing demand for seafood, driven by global population growth and changing dietary preferences, has exerted immense pressure on the Mediterranean's fish stocks, leading to a precarious imbalance that jeopardises both the environment and the economic stability of coastal communities.

Fishing is a deep-rooted part of the soul in the Mediterranean. Throughout generations, fishing is the manner in which the people have come to understand the sea and the once thriving world below the surface. Approximately 80,000 fishing boats are situated in the Mediterranean, providing sustenance for 180,000 people and supporting a 4.6 billion euro industry.



# **Definition of Key Terms**

#### Maritime

Referring to anything related to the sea or navigation on the sea.

#### Fleet

A group of ships by a single organisation or under a common authority. A term used to describe a group of fishing vessels collectively engaged in harvesting marine resources.

#### Aquaculture

The controlled cultivation and farming of aquatic organisms through artificial breeding under controlled conditions for commercial purposes.

#### **Bottom Trawling**

A fishing method that involves dragging a large net (a trawl) along the seafloor to capture fish and other marine organisms.

#### Long Lining

A fishing method that involves using a long mainline, which can extend for several kilometres, with many baited hooks attached at intervals to target specific species of fish.

#### IUU

Standing for illegal, unreported and unregulated fishing when referring to activities conducted by vessels or fishers that operate outside the laws and regulations established by national or international fisheries management organisations.

#### **Biodiversity**

Short for biological diversity, it refers to the variety of life in a certain areas at all levels of biological organisation.

#### Bycatch

The unintentional capture of non-targeted species when fishing.

#### Driftnet

A large fishing equipment that is a long, floating net suspended vertically in the water and it captures fish that swim into it.

## Fishing Quotas

A regulatory management tool that establishes the maximum allowable catch of a specific fish species or group of species within a defined time period, expressed often in terms of weight or number of fish to prevent overfishing.



## **General Overview**

However, Mediterranean fish livelihood is on a worryingly steep decline. Around 75% of fish stocks are overfished in the Mediterranean, increasing even more so to 93% within EU waters, with total populations of fish having fallen by over a third in the past 50 years. The main faults behind the overfishing are: increased fishing fleet capacity, illegal fishing, and catches of unwanted species. Without prompt change or adaptation, fish stocks could collapse, leading to catastrophic consequences for ecosystems, communities and the economy.

Overfishing in the Mediterranean Sea began roughly during the 1970s due to a development of technology that allowed fleets of ships to fish further and further within the Mediterranean with more sea to cover. According to science-based reports, the result of this technological advancement has caused an excess of harvesting 90% of fish populations within the Mediterranean. Examples such as the European hake, red mullet and anglerfish are exploited 10 times over the suggested limit, thus making them the most commercially imported species. It can be stated that the main culprits are Mediterranean EU member states due to statistically catching the most fish in the region and having the most powerful fleet of fishing vessels.

In addition, the nature of the fishing is very damaging to the ecology and ecosystem of the Mediterranean. The most efficient technique that the fisherman utilise is called "bottom trawling" where large, heavy nets are towed along the seafloor, effectively a bulldozer that is capable of wiping out anything in its way. Trawling can cause irreversible damage to sensitive habitats such as deep-sea coral reefs, gorgonian gardens and sea sponge grounds which shellfish, fish and crustacean depend on for breeding, spawning and nurseries. Naturally, the result of this decimates the population of marine life as well as hinder the recovery of depleted fish stock.

Moreover, the act of trawling is very wasteful due to as much as half of all discarded fish and marine life in the world are generated through trawling. Most of the unwanted catches are juvenile fish that die in the nets and are tossed overboard examples are undersized hake and red mullet, which live and feed near the bottom of the ocean where the trawling nets fish make up 60% of the bycatch for Mediterranean trawlers. The most damaging is that these fish will never have a chance to grow and reproduce, risking damage to the population.

Furthermore, illegal fishing also causes great damage. Not only does it decimate fish stocks it also makes fisheries' management difficult and creates unfair conditions for those who fish responsibly. It is claimed that over 50% of fish products landed in Italy are estimated to come from illegal fishing - this can be from the sale of undersized fish or to the use of prohibited gear or fishing in protected areas. The reason for illegal fishing being so widespread is due to the scarcity of enforcement and compliance with fisheries' rules.



# **Major Parties Involved**

## Algeria, Greece, Italy, Spain, Turkey

The aforementioned countries are responsible for just over 80% of total fish landed in the Mediterranean and the magnitude of their fleets compromise more than 60% of the total number of vessels. Four of the countries above account for approximately 82% of the total aquaculture value: Turkey at US\$670 million followed by Greece, Italy and Spain.

#### MedReAct

MedReAct, standing for Mediterranean Recovery Action, was launched in 2014 by activists alongside organisations who are committed to fighting the loss of biodiversity in the Mediterranean Sea. It is an independent organisation that does not accept funding from multinational corporations or political entities. MedReAct claims that in order to guarantee the future for the fish population in the Mediterranean at least 30% of its water must be fully protected.

#### MedFish4Ever

The MedFish4Ever (Malta MedFish4Ever Declaration) is a declaration of joint commitment by nations surrounding the Mediterranean Sea, including the EU and both upper and lower coastlines, to take diligent steps over the next decade to improve the management and governance of their fisheries.

#### General Fisheries Commission for the Mediterranean (GFCM)

The General Fisheries Commission for the Mediterranean is a regional fisheries management organisation with 22 member countries and the EU with the main objective to ensure the conservation and the sustainable use of living marine resources as well as the sustainable development of aquaculture in the Mediterranean and in the Black Sea.

#### The Global Fishing Watch (GFW)

The Global Fishing Watch is recognised for its global expertise in improving the transparency of fishing fleet activity to combat illegal, unreported and unregulated fishing as well as the aim to strengthen the designation and safeguarding of protected marine areas.

#### The Med Sea Alliance (MSA)



The Med Sea Alliance is a campaign movement created in 2020 to bring together nongovernment organisations and networks working to improve the health and productivity of the MEditerranean Sea.

## Illegal, Unreported, and Unregulated (IUU) Fishing Operators

Fishermen who operate outside of the already-established regulations fall under the title of an IUU fisher. Examples of IUU fishing could be not reporting catches, using prohibited gear, fishing in protected areas which exacerbates the depletion of fish stocks.

#### The Tourism Industry

The Mediterranean is known for its connotations to azure waters, warm weather and luscious seafood delicacy. As a by-product, tourists flock to the Mediterranean in vast quantities like in 2019 when 400 million tourists had visited the Mediterranean Sea throughout the year. Naturally, this means that the increased demand for fresh seafood intensifies fishing pressure on local marine resources as restaurants try to satisfy the high demand.

# **Timeline of Events**

1950s-1970s	The post World War Two era witnessed a significant
	expansion of fishing fleets and the adoption of more
	industrialised fishing methods which ignited the stress on
	fish stocks. This marked the beginning of a shift toward
	more industrialised and intensive fishing practices.
1980s	Overfishing became a growing concern due to
	advancements in maritime technology such as sonar and
	satellite tracking which allowed the fishing industry to
	locate and catch fish.
1995	The Code of Conduct for Responsible Fisheries is adopted
	by the Food and Agriculture Organisation (FAO) of the
	United Nations, Emphasising the need for sustainable
	fishing practices.
2006	The General Fisheries Commission for the Mediterranean
	(GFCM) is established to promote the conservation and
	sustainable use of Mediterranean (and Black Sea) Fisheries
	through international cooperation.
2012	The Common Fisheries Policy (CFP) of the European Union
	underwent reform: to end overfishing by setting catch
	limits based on scientific advice, implementing sustainable



	fisheries management measures and establishing a discard ban to reduce wasteful practices.
2016	The Mediterranean Regulation of the European Union is adopted, establishing a legal framework for the sustainable management of fisheries in the Mediterranean.
2018	The United Nations Sustainable Development Goal number 14, Life Below Water, sets a target of greatly preventing and reducing overfishing by 2020.
2020	Despite international efforts, the Mediterranean continues to be overfished, with several species facing depletion, and urgent calls for more effective measures.
2022	
	Overfishing remains a pressing and critical issue, prompting ongoing discussions within international organisations, such as the GFCM and the European Union, on ways to enhance conservation measures and sustainable fisheries management in the Mediterranean.

## Previous attempts to solve the issue

## Banning Bottom Trawling Beyond 1000 Metres

The General Fisheries Commission for the Mediterranean (GFCM) banned bottom trawling at depths beyond 1000m alongside the work of the WWF (World Wildlife Fund) and IUCN (The World Conservation Union on the diversity). This ban came along due to the strive to fish deeper and deeper as shallow fisheries are overexploited and fish stocks ever depleting. Sea beds below 1000m have not yet been expired by Mediterranean fishing fleets and the ban is a precaution to protect the still-intact and poorly understood deep sea ecosystems. This means that over half the area of the Mediterranean is now protected from the harmful impacts of bottom trawling due to the Mediterranean having an average depth of 1500m. The GFCM also banned the use of driftnets in the Mediterranean, thus making all 2.5 million square metres of the sea driftnet free. According to the WWF, the use of driftnets in the Mediterranean continues to kill a plethora of vulnerable species every year such as thousands of dolphins. These driftnets run for many kilometres, with a single net measuring anywhere between 7 and 14 kilometres long. The EU banned driftnet fishing in January 2002 and the UN moratorium on large scale drift from 1992, yet they were still used as a means for fishing.



#### Fishery Restricted Areas (FRAs)

As the name suggests, FRAs are locations in which fishing is banned. There are two new FRAs in the Mediterranean: the Bari Canyon FRA in the southern Adriatic and the Gulf of Lion FRA. Furthermore, the Jabuka Pit in Croatia became a permanent FRA.

#### Regional Plan of Action on Small Scale Fisheries (RPOA-SSF)

Countries agreed on continuing to support the implementation of the priority actions, in line with the conclusions of the high-level event on advancing the RPOA-SSF in the connect of the GFCM 2030 Strategy - to preserve the heritage of fisheries and aquaculture as pillars for the livelihoods of Mediterranean and Black Sea coastal communities.

#### Anti-Bottom Trawling Initiative

This initiative was jointly implemented by the MedSeaAlliance and GFW with aims to reveal the extent of the negative impact of bottom trawling in the Mediterranean with the help of new technologies, reverse the culture of non-compliance in fishers and contribute to the enforcement of existing rules with a particular focus on protected marine areas. This was achieved through remote sensing support to expose the extent and impact of illegal trawling in the Mediterranean, improving monitoring and control of trawler activity and providing a more accurate picture of the depths at which they operate and supporting compliance efforts in EU and non-EU countries.

# **Possible solutions**

#### Create More FRAs

Currently only 0.04% of the surface of the Mediterranean is covered by no-go, no-take or nofishing zones and 8.9% of the Mediterranean are Marine Protected Areas with conservation measures yet in reality only 10% of them implement management plans in the 1233 Marine Protected Areas. More FRAs would allow fish populations and their ecosystems to replenish themselves to ensure fishing for future generations and sustainable fish stock in the Mediterranean.

#### A Ban on Trawling

There is no doubt that trawling in the Mediterranean does more bad than good from decimating sea beds and everything in their path, to not being able to control how much fish they catch to the unintentional killing of bycatch such as dolphins. Instead, other effective industry-specific fishing techniques could be used such as longlining which allows fishing boats to catch hundreds or thousands of targeted fish at a time with a low chance of snagging bycatch.



## Catch Shares

Catch shares is a system of fishing management that is proven to allow fish stocks to replenish while saving the livelihoods of fishing communities by preventing a sudden collapse. A total allowable catch is established by using scientific data about the health of fish stocks and the environment in a certain area, and catch shares are licensed out to each fishing business telling them exactly how much of each seafood species they're allowed to catch. This also makes seafood more valuable which allows for a higher and more predictable profit for fishermen while simultaneously protecting the environment.

## Increase Game Wardens and Law Enforcement Officers

Significantly increasing the enforcement on the water and at port to stop widespread illegal, unregulated and unreported (IUU) fishing in the Mediterranean could deter the overall amount of fishing pirates. The Law Enforcement could patrol in order to ensure fishing fleets are conforming to the regulations alongside the Game Wardens who could ensure that fishermen are fishing within their quotas.

## Encourage the Growth of Nurseries

Designated breading and nursing grounds could promote the rejuvenation of fish stock. This could be achieved by ensuring plots of the Mediterranean are not disturbed by maritime traffic and fishing in order to not disrupt breeding patterns.

# Useful documents

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