WWF

REPORT

EU

2017

# SEAFOOD AND THE MEDITERRANEAN:

## LOCAL TASTES, GLOBAL MARKETS

# ACKNOWLEDGEMENTS

Written and edited by WWF Mediterranean / Evan Jeffries (*www.swim2birds.co.uk*), primarily based on data contained in two recent reports:

*Study on the interplay between national and imported seafood products in the markets of EU Mediterranean Member States (Croatia, France, Portugal, Greece, Italy, Spain and Slovenia)*, by Proyectos Biológicos Y Técnicos, S.L, July 2016

*Assessment of South-North seafood trade flows within the Mediterranean – including all Maghreb countries*, by Javier Macías and Marc Savary, Canaest Consultores, December 2015

Design by Catherine Perry (*www.swim2birds.co.uk*)

Front cover photo: Fisherman in Ustica, Italy – © Claudia Amico / WWF

References and sources are available online at *www.mediterranean.panda.org*

Published in May 2017 by WWF – World Wide Fund For Nature (Formerly World Wildlife Fund), Gland, Switzerland.

Any reproduction in full or in part must mention the title and credit the above-mentioned publisher as the copyright owner.

© Text 2017 WWF. All rights reserved.

## KEY CONTACTS

Marco COSTANTINI
Fisheries Project Manager, WWF Mediterranean
*mcostantini@wwfmedpo.org*

Chantal MENARD
Communications Manager, WWF Mediterranean
*cmenard@wwfmedpo.org*

WWF is one of the world's largest and most experienced independent conservation organizations, with over 5 million supporters and a global network active in more than 100 countries.

WWF's mission is to stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature, by conserving the world's biological diversity, ensuring that the use of renewable natural resources is sustainable, and promoting the reduction of pollution and wasteful consumption.

This report has been produced as part of WWF's EU co-funded Fish Forward Project. Fish Forward aims to raise awareness of the global impact of seafood choices made in Europe and their effects on people living in developing countries. ***www.fishforward.eu***

**Disclaimer**: This publication is co-funded by the European Union. The contents of this publication are the sole responsibility of WWF and can in no way be taken to represent the views of the EU.

© Claudia Amico / WWF

# CONTENTS

# OVERVIEW

**People have relied on fish since the beginning of time. It's essential to diets the world over, a crucial source of protein and other nutrients. Internationally, fish is the most widely traded food commodity of all – while on a subsistence level it provides direct food security for countless coastal communities, most of them in the developing world.**

**800 MILLION**

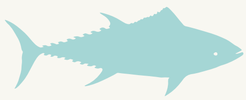
**PEOPLE DEPEND ON FISHING AND THE SEAFOOD INDUSTRY**

Some 800 million people depend on fishing and the seafood industry. Healthy fish populations play a vital role in maintaining ocean ecosystems from which we all benefit. In social terms, fishing is a way of life stretching back for generations, and it's still at the heart of many cultures today.

Fish is a particularly big deal in the Mediterranean. For locals and tourists alike artisanal fishing communities, fish markets, seafood restaurants and maritime heritage are central to the region's unique economic, social and cultural identity. Abundant fresh local fish is as much part of the Mediterranean as its golden beaches and its gentle sunny climate.

But this popular image is a long way from the reality.

The truth is, more than 93 per cent of assessed fish stocks in the Mediterranean itself are threatened by overfishing, and face an uncertain future. Fishers from European Mediterranean nations harvest around three times as much of their catch out in Atlantic waters, and are present in every world ocean except the Antarctic Atlantic.



**93%**

**OF ASSESSED MEDITERRANEAN STOCKS ARE THREATENED BY OVERFISHING**

And the majority of the fish on display on European Mediterranean counters and menus? It's imported, mostly from the developing world. In fact, for every kilo of fish caught or raised by European Mediterranean countries, almost another two kilos are bought in from abroad.

The Mediterranean seafood industry is part of a web that stretches right round the globe. The fish people buy in the region directly influence not only their own environment and societies, but also those of people far away, many of whom are in the developing world. We urgently need new approaches, better ways of managing our relationship with fish and the oceans, and to embed sustainability at the heart of our approach to fish and the future.

Here in the Mediterranean there's a lot of work to do, and the same is true for fisheries across the world. But if nations come together, if science is respected, if fishers focus on tomorrow as well as today – and if every individual fish lover plays their part too – we can still make sure our fish have a future.

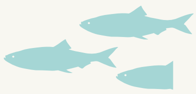
# GLOBAL IMPORTS:
# THE LOCAL SPECIALITY

**€34.57 BILLION**

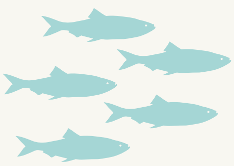
EUROPEAN MEDITERRANEAN NATIONS' EXPENDITURE ON FISH AND FISHERY PRODUCTS IN 2014

**7.5 MILLION TONNES**

OF FISH CONSUMED BY EUROPEAN MEDITERRANEAN NATIONS EACH YEAR



2.75 MILLION TONNES DOMESTIC SOURCES



NEARLY 5 MILLION TONNES IMPORTED

**The Mediterranean's dependence on other countries comes as a big surprise to most fish-lovers – and this really is a part of the world where the subject is taken seriously!**

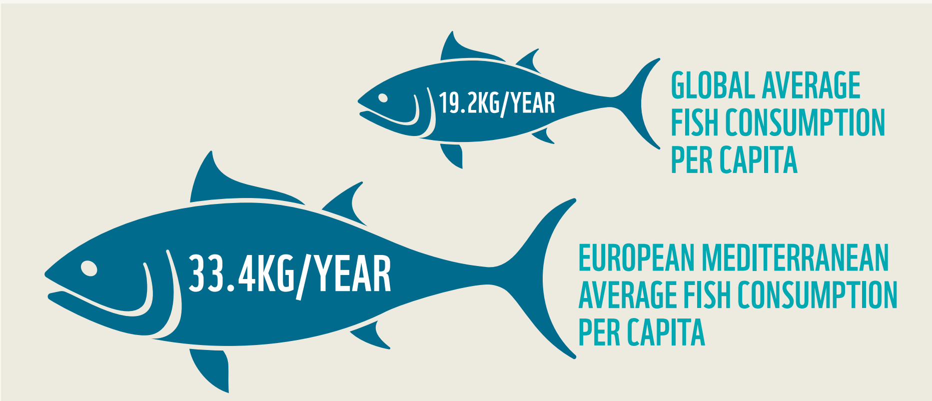
The EU states in the region – Croatia, France, Greece, Italy, Slovenia, Spain and Portugal (European Mediterranean) – are among the world's highest consumers of fish. In 2014, European Mediterranean nations spent around €34.57 billion on fish and fishery products, some 63 per cent of the EU total.[1] Spain, Italy and France between them account for more than half of the EU figure, despite having only around a third of the EU's population.

Taking a different measure, the region has an annual mean consumption of 33.4kg of fish per capita compared to an EU average of 22.9kg and a global average of 19.2kg. In Portugal, the figure is an enormous 56.8kg, more than a kilo of fish per person every week. Spain is the next highest at 42.4kg.[2]

European Mediterranean countries account for 36 per cent of all fish imported from outside the EU, and 42 per cent of the exchanges between member states.[3]

To give an idea of the scale of the trade, European Mediterranean countries consume almost 7.5 million tonnes of fish each year – yet only around 2.75 million tonnes come from domestic sources. This leaves a much larger amount of fish to find from elsewhere: nearly 5 million tonnes every year.[4]

Fish-lovers in the Mediterranean are in fact key players in a global market, and their buying habits have global impacts. It's really important that consumers understand the significance of their choices.

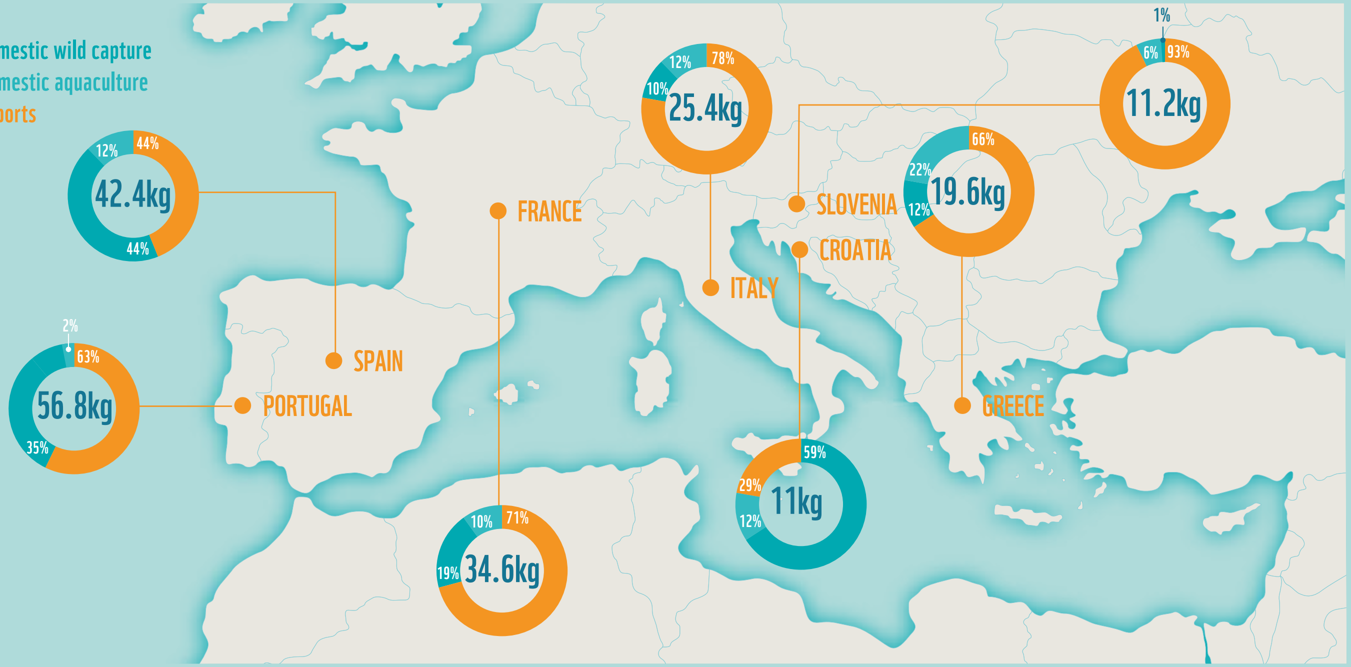



1. EUROSTAT, 2014. 2. FAO, 2011. 3. EUMOFA, 2014. 4. FAO, 2011.

# THE MEDITERRANEAN FISH IN A GLOBAL MARKET

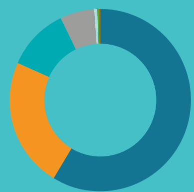
## EUROPEAN MEDITERRANEAN COUNTRIES: HOW MUCH FISH DO THEY CONSUME, AND HOW MUCH DO THEY IMPORT? KG/CAPITA/PER YEAR

KEY
- Domestic wild capture
- Domestic aquaculture
- Imports



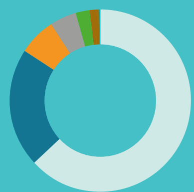

Data: EUMOFA/EUROSTAT; FEAP; Statistical Office of the Republic of Slovenia, 2011; FAO 2013; Croatian Bureau for Statistics, 2015

## NORTH/SOUTH FISH TRADE IN THE MEDITERRANEAN



### EXPORTS TO THE EU: US$ (000s)

- MOROCCO: $596.533 (58.77%)
- TURKEY: $237.750 (23.16%)
- MAURITANIA: $152.665 (11.07%)
- TUNISIA: $111.934 (5.89%)
- EGYPT: $8.440 (0.58%)
- ALGERIA: $6.579 (0.51%)
- LIBYA: $97 (0.02%)



### IMPORTS FROM THE EU: US$ (000s)

- MOROCCO: $131.941 (21.27%)
- TURKEY: $26.912 (6.74%)
- MAURITANIA: $106 (0.03%)
- TUNISIA: $30.839 (4.64%)
- EGYPT: $146.515 (63.09%)
- ALGERIA: $15.436 (2.58%)
- LIBYA: $9.352 (1.66%)

Data: UN Comtrade 2013

Data: FAO 2011; EUROSTAT/FEAP 2013

## MEDITERRANEAN/BLACK SEA SPECIES:

Domestic landings (main percentage) Overall market split (percentages below)

**8% Cephalopods**
Domestic 18% | Imported 82%

**7% Crustaceans**
Domestic 28% | Imported 72%

**21% Demersal**
Domestic 96% | Im 4%

**6% Molluscs*, Bivalves**
*not including cephalopods
Domestic 68% | Imported 32%

**42% Sardine, Anchovies**
Domestic 100%

**6% Misc Pelagic**
Domestic 60% | Imported 40%

**5% Tuna, Swordfish**
Domestic 25% | Imported 75%

**5% Other Marine**
Domestic 60% | Imported 40%

# A COMPLEX INTERNATIONAL MARKET

**European Mediterranean consumers like fresh fish, and species they see as 'local'. In general terms they prefer small pelagic fish (sardines, anchovies etc), as well as tuna, mussels, shrimps, cephalopods (octopus, squid etc), hake, sea bream and sea bass. Small pelagic fish make up 30 per cent of European Mediterranean landings[1], but many of the other most commonly seen species are heavily dependent on imports – and now that populations of iconic Mediterranean species like swordfish have decreased, these too often come from further afield.**

**1.8 MILLION TONNES**
EUROPEAN MEDITERRANEAN NATIONS' IMPORTS FROM DEVELOPING COUNTRIES IN THE REGION

Many of the imports come from North Africa, where the trade has direct socio-economic and environmental impacts: in 2014, European Mediterranean nations imported some 1.8 million tonnes from developing countries in the region (Morocco, Turkey, Mauritania, Tunisia, Egypt, Algeria, Libya), along with around 335,000 tonnes of fish caught under license in these countries' waters.[2] Local fishers target high value species to be sold fresh on European Mediterranean markets. Entire North African communities rely on European Mediterranean nations' love of octopus, for example.

It's not all one-way traffic: European Mediterranean nations export fish in the other direction too, although in smaller quantities – but almost all of it is processed or canned product, sold at relatively low prices. In fact, a significant amount of the fish European Mediterranean nations export isn't directly destined for human consumption: for example fish meal from anchovies and other baitfish is mostly used for aquaculture, while almost all the high volume of frozen mackerel exported to Mauritania is used as bait by industrial longline vessels targeting species for international markets.

© Gernant Magnin / WWF Netherlands

1. EUROSTAT. 2. EUMOFA, 2014.

# HOW DID WE GET HERE?

**It wasn't always like this. The Mediterranean used to have more than enough fish for everyone, supporting entire communities and providing a key element of the region's famously healthy diet. From octopus to Bluefin tuna, from deep-water prawns to swordfish, everything on the stalls in the harbours came from the sea beyond.**

**93%**
**OF ASSESSED STOCKS OVEREXPLOITED**

Of the assessed stocks, 93 per cent are threatened by overfishing; which means that if present practices continue unchanged, they'll be unable to recover and populations will crash.

Why? It's a combination of unsustainable demand and ineffective management. Over the last 50 years increasingly industrial methods, poor monitoring and control, illegal, unregulated and unreported (IUU) fishing, and environmental factors have all taken a heavy toll. And yet landings grew every year until the mid-1990s, reaching a peak of more than 1 million tonnes in 1994.[1.]

By 2013, the overall landing figure had fallen to 787,000 tonnes [2.] – but this isn't because people were showing increased restraint: it's because the fish simply weren't there any more. It's the same story in many other oceans worldwide, and the ongoing effort to meet consumer needs around the world is one that must be approached on a global level.

Falling fish numbers produce a classic vicious circle. Fishers need to earn a living, so they go to greater lengths (larger nets, more time at sea etc) to target shrinking stocks just when the stocks need to be given time to recover, making it even harder for the stocks to bounce back.

One of the most common tendencies as numbers fall is to increasingly target juvenile fish, which are caught before they have the chance to reproduce – and this has obvious consequences for the stock's ability to regenerate.

If we don't take serious steps to protect the remaining fish stocks, the Mediterranean may never recover – and the same is true across our planet.

© Oscar Esparza / WWF

1.and 2. The state of Mediterranean and Black Sea fisheries 2016, GFCM.

# SUPPORTING SUSTAINABLE FISHERIES IN THE MEDITERRANEAN AND BEYOND

© Ivan Bura / WWF

© Bruno Pambour / WWF

**As we've seen, European Mediterranean nations depend largely on imports to meet the demand for fish. Nobody, though, wants to see a situation where cheap imports mean local fishers face unfair competition from other countries for their speciality products – particularly if the lower prices of imported fish can be traced back to weaker management and controls in developing nations.**

But with 93 per cent of assessed Mediterranean stocks already threatened by overfishing, it's not as if fishers can just go out and catch and sell more to compete on price with industrial-scale operations in distant waters. Falling yields are reducing overall fishing efforts, leading to less activity and employment in many ports – traditional ways of life are disappearing, along with the social cohesion they used to ensure. We urgently need to protect what we have left, and work towards a sustainable future.

Education matters. Informed consumers actively contribute to better outcomes. If they know what they're really eating, how it's caught, where it comes from, and what impacts its harvest has had, then social and environmental factors become more important in buying decisions. Labelling must be comprehensive and correct, so consumers can understand and trust what they're told.

A better understanding of sustainability and the realities underpinning the European Mediterranean market could increase support for the right kinds of local fish while promoting sustainable aquaculture to take pressure off other stocks. It would also allow consumers to support well-run fisheries in developing countries. In all cases, however, traceability is paramount: understanding begins with information, and right now there needs to be more of both – from the sea to the plate.

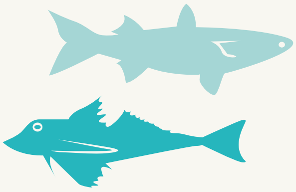
# ACTIONS WE CAN TAKE

**There are some clear steps we can take right now to begin to reverse the damage that has been done – and as they become established, best practices can be shared across the whole region:**

## FISH SUSTAINABLY

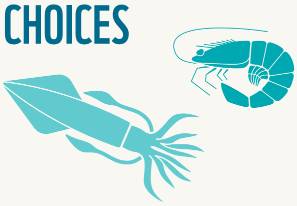
The most obvious thing to do is to safeguard what remains and allow fish stocks to recover and be maintained at sustainable levels. This means European Mediterranean nations cooperating to ensure that stocks are managed sustainably, that juvenile fish are protected, that effective measures are put in place to combat the growing threats posed by IUU fishing, and that traceability is guaranteed. Certification from bodies like the Marine Stewardship Council is the best available standard to aim at and to look for on the shelves.

## TRY DIFFERENT SPECIES



When it comes to buying fish we're creatures of habit, and we tend to do what we've always done. That means we stick with the fish we know, and the fishers will try and meet our needs – but if a species is threatened by overfishing, continuing to target it will cause grave damage to remaining numbers. The species in question vary from one country and tradition to the next, but the pattern remains the same. And yet there are plenty more fish in the sea! WWF are encouraging European Mediterranean fish buyers to step outside their usual habits and try something new – sustainable local species which are less commonly caught but which can provide a delicious alternative, or fish produced in the region through sustainable aquaculture, or sustainably sourced imports like Vietnam's pangasius (provided, of course, that it's organic or ASC certified).

## MAKE INFORMED CHOICES



Consumers make positive choices: the European Mediterranean fishing fleet can market its products with this in mind. In a region where seafood shoppers care about freshness, quality and heritage, there's a real opportunity to make particular fish more attractive than the competition: origin means something, and traditional local artisans have an advantage over distant industrial producers. Regional products support communities and have important cultural resonance. If more people understand where the fish on offer really comes from, sustainably produced local fish becomes that much more attractive.

## CREATE NEW MARKETS

Small-scale fishing operations can't do much to access new markets on their own, but their power and the potential value of their catch increases hugely if they link up with other stakeholders and focus together on structures that benefit everyone. These can range from conveniently regulated and transparent direct sales to restaurants near landing areas (especially in tourist regions), to the identification of new markets for species during seasonal peaks, to distribution agreements with wholesalers and local traders: retailers need a regular and diversified supply, and local fisher associations can – collectively – provide one. Communities that used to rely solely on fishing can embrace other related opportunities to make the most of their primary asset: fishing tourism, wildlife watching, cultural heritage (fishing techniques, gastronomy etc), sustainable aquaculture and other sectors can all make important contributions to regional economies while keeping fish at the heart of things.

# AQUACULTURE ON THE RISE

**Global catches have declined by more than 10 per cent since the year 2000, while the EU as a whole has seen its harvest reduced by more than a quarter in the same period. Other than going after more distant deep-water species, aquaculture is the only realistic way of maintaining or increasing the volume of fish produced by European Mediterranean nations.**

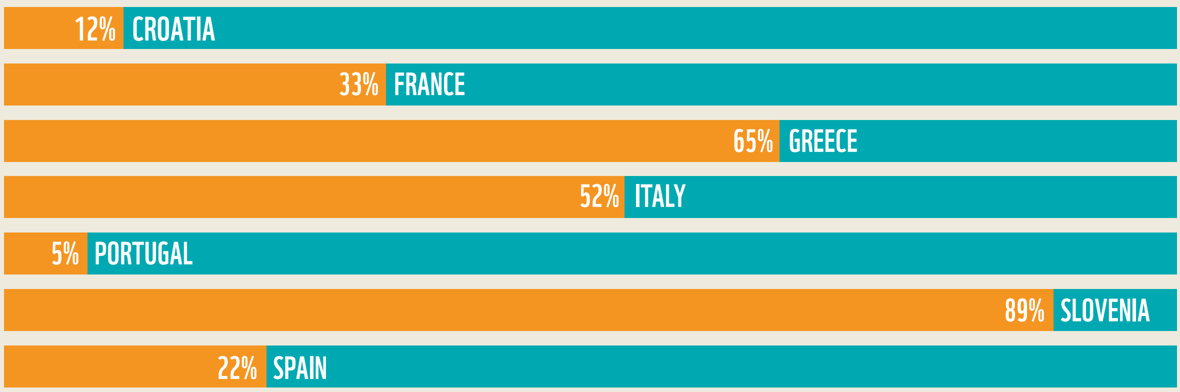
But as with fishing, there are good and bad forms of aquaculture. When it's responsibly managed, aquaculture can be an excellent and environmentally friendly alternative that takes pressure off wild stocks, benefits communities, and makes an important contribution to national nutritional needs. Done badly, it can pollute and damage ecosystems, unbalance local economies, produce poor product, and entrench unacceptable working conditions.

Certification schemes – such as the Aquaculture Stewardship Council and organic certifications – are an important way of helping people choose responsibly farmed fish. There's increasing momentum in this direction: as consumers become better educated on the real consequences of their choices, more and more want to know that they're supporting social development and environmental stewardship, as well as seeking reassurance on quality.

This creates a virtuous circle: certified producers can charge a premium for their products because of market demand, making it an attractive avenue for others to pursue in turn – until responsibility becomes the norm for producers and consumers alike.

Aquaculture currently produces around a third of total fish landed (by volume) in the European Mediterranean region. In Greece and Italy, it actually exceeds wild capture – this mirrors the global situation, where more than half of all fish consumed comes from aquaculture.

## HOW MUCH DOES AQUACULTURE CONTRIBUTE TO LANDINGS ACROSS EUROPEAN MEDITERRANEAN NATIONS? [1.]




1. Croatian Bureau for Statistics ; EUROSTAT; FEAP; Statistical Office of the Republic of Slovenia.

# THE FISH TRADE AND INTERNATIONAL DEVELOPMENT

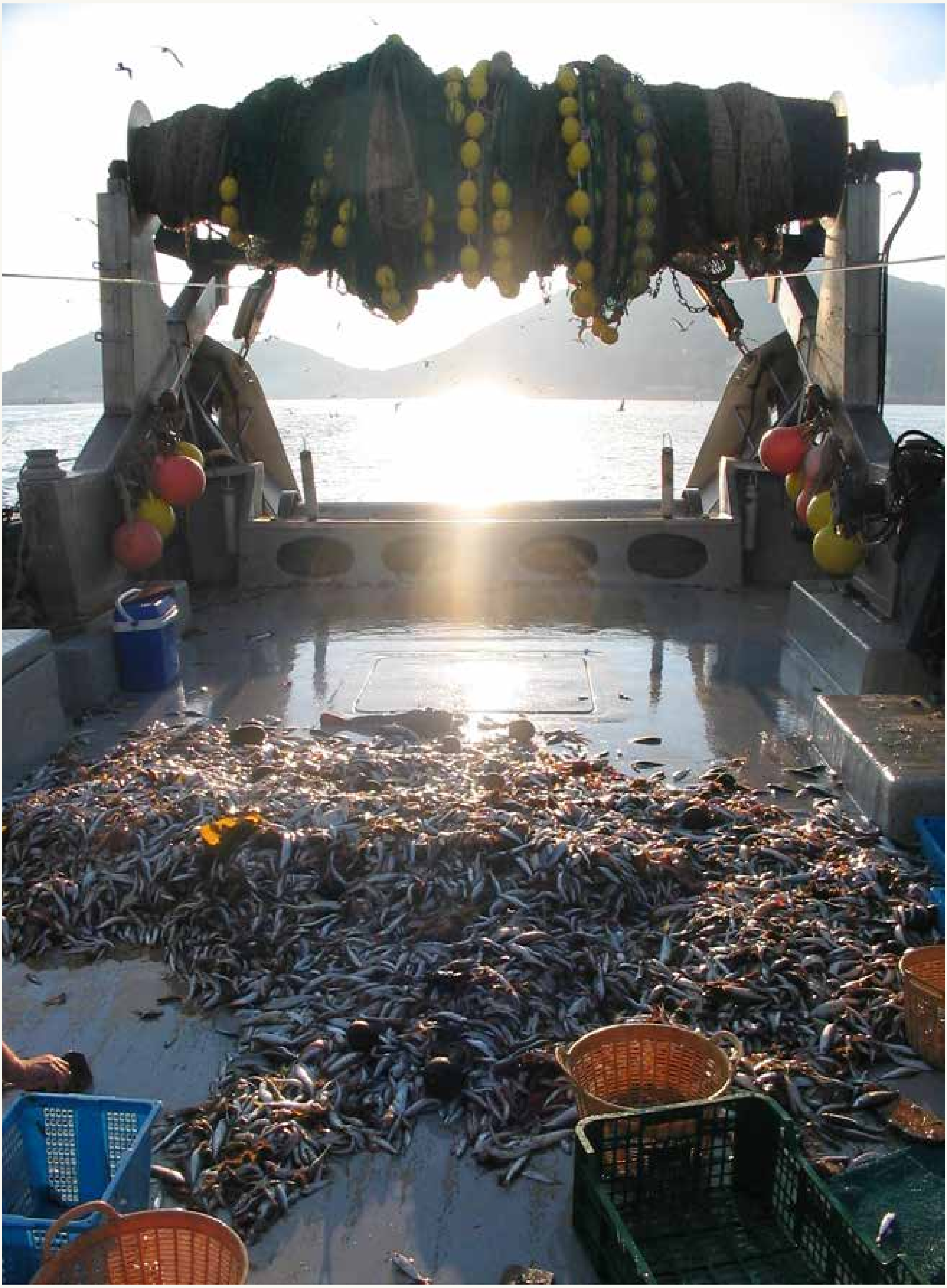
**Trade with European Mediterranean nations can help alleviate poverty in developing countries and build long-term stock sustainability, but only if it's done right. Fishery rules and controls must be effectively implemented both in EU and non-EU countries, otherwise fishing activity by local and EU vessels may have the reverse effect: there's a definite risk of continuing the negative impacts, both socio-economic and environmental.**

Governance is crucial. It's all very well knowing in theory how to look after fish stocks, but countries must be able to effectively monitor and control the fishing efforts taking place in their waters. A realistic amount of the revenue raised through fishing needs to be channelled back into enforcing the rules. Without the benefit of this money and the governance structures it should underpin there's a danger of a race to the bottom, where stocks are overfished, IUU fishing spreads, and labour abuses become more common.

It's also important to ensure there's a favourable local business environment where value can be generated from fishing-related activities. If an infrastructure is in place and local/private ventures are possible, employment and revenue will follow. Currently, however, many of the investments linked to fisheries partnership agreements with European Mediterranean nations do no more than provide landing and storage facilities for industrial vessels, which have little positive impact on local small-scale fisheries.

Food security should also be acknowledged and respected. For many communities in developing nations fish is the main source of protein and a crucial source of micronutrients, so it's important that exports don't come at the cost of local needs.

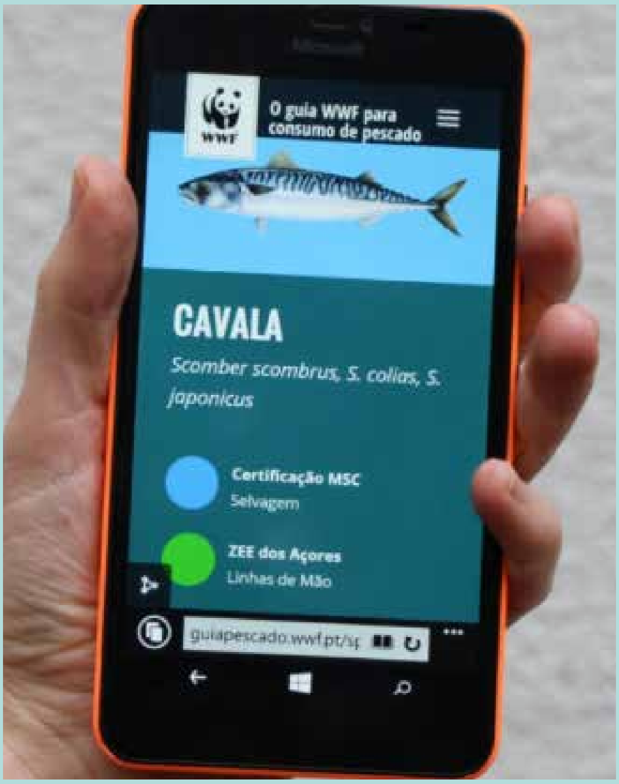
© naturepl.com/ Jouan & Rius / WWF



© Oscar Esparza / WWF

# THE SUSTAINABLE SEAFOOD GUIDE






**Educating consumers about their choices is central to saving and restoring fish stocks in the Mediterranean and beyond. There are three key points:**

- Check the label to see what you're really buying;
- Don't eat baby fish which haven't had the chance to reproduce; and
- Try something different to reduce the pressure on the most popular stocks.

These are the foundations of WWF's multilingual Sustainable Seafood Guide series. These online guides (which are optimized for use on mobile devices) offer essential information on available products in 12 different European countries, rating a wide range of species with a traffic light system that helps inform shoppers. This runs from blue for 'certified' through green for 'give it a try' and orange for 'caution' to red for 'avoid'.

While simple to use, the guides are based on available scientific data: desktop risk assessments taking into account origin and gear mean it's possible for shoppers to go beyond general species-specific guidelines, and make buying decisions about fish sourced from particular fisheries. The data is updated regularly, so it always reflects what's really happening in the oceans.

If shoppers need more persuading to change their habits, the guides also feature delicious recipes from well-known chefs to inspire them to try something new.

*www.fishforward.eu/en/online-seafood-guides-launched-in-several-eu-countries/*

# SEAFOOD AND THE MEDITERRANEAN: IN NUMBERS

100%
RECYCLED

## €34.57 BILLION

European Mediterranean nations spent €34.57 billion on fish and fishery products in 2014

## 93%

Of assessed fish stocks in the Mediterranean, 93% are threatened by overfishing

## 2.75 M TONNES

European Mediterranean nations produce 2.75 million tonnes of domestic fish and seafood products annually

## 1.8 M TONNES

European Mediterranean nations import 1.8 million tonnes of fish and seafood products from developing countries in the region each year

WWF

**Why we are here**

To stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature.

panda.org

© 1986 Panda Symbol WWF - World Wide Fund For Nature (Formerly World Wildlife Fund) ® "WWF" is a WWF Registered Trademark.