FROM NICHE TO NORM:

SETTING SAIL FOR LOW-IMPACT FISHERIES IN THE EU

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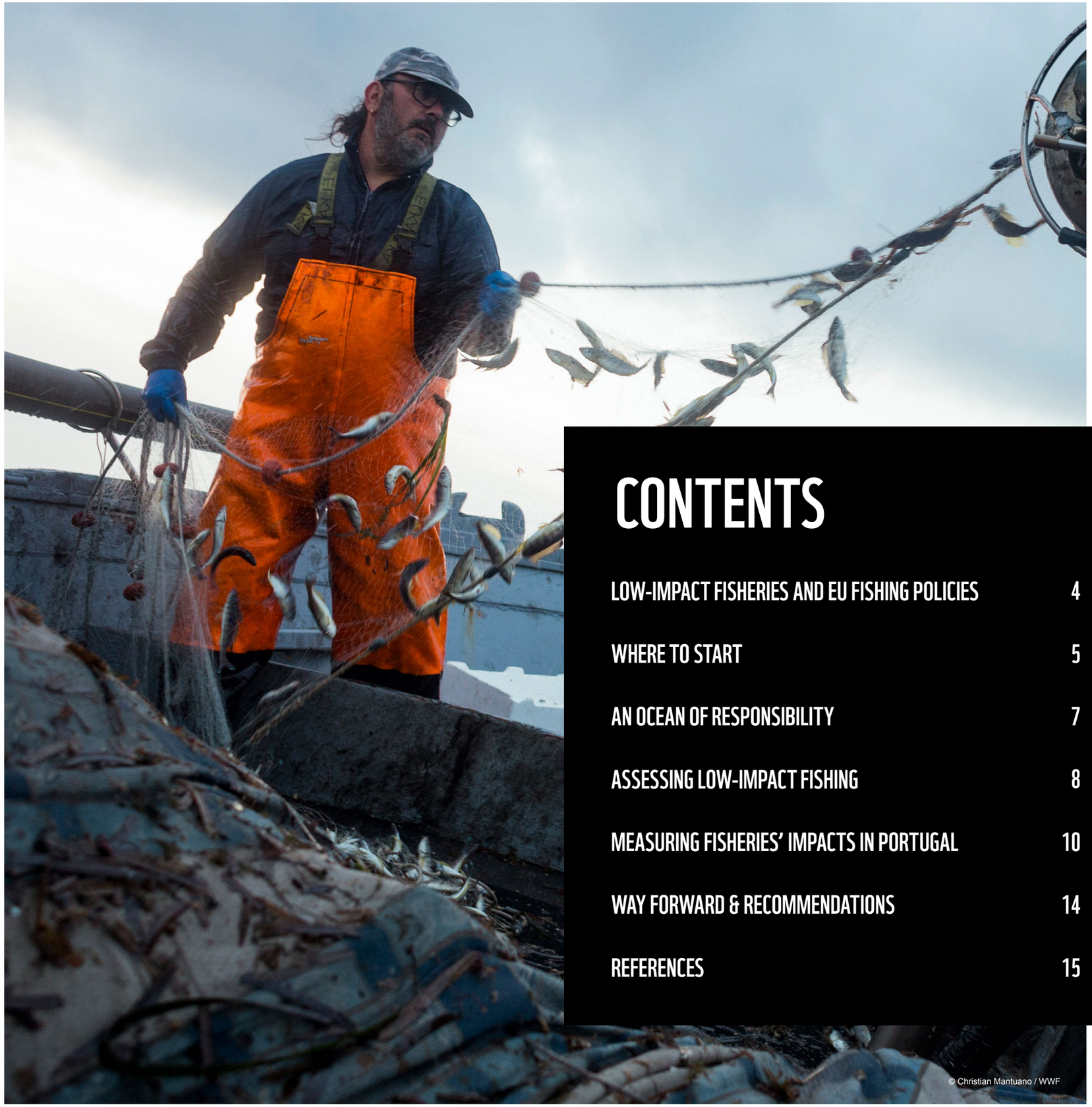
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LOW-IMPACT FISHERIES AND EU FISHING POLICIES

All fishing has an impact – on marine ecosystems and species, our total carbon emissions, the livelihoods of those living in coastal communities and the quality of seafood ultimately served on our plates.

The scope and scale of this impact varies: at times, fishing may only slightly impact the size of a fish population, however, it can also cause entire fish stocks to collapse, fishers to close business and coastal communities to leave their shores. The future of marine ecosystems, which humans are part of and upon which we all rely for climate regulation and the air we breathe,[1] depends on us constantly rethinking and improving the way we fish to ensure that our activities and the seafood we eat are sustainable in the long term.

The need to **minimise fishing activities that are harmful to the marine environment** is an integral part of the EU's Common Fisheries Policy (CFP) and other EU marine policies,[2] in addition to being viewed as a necessary condition to achieve sustainable fisheries. **The CFP defines and incentivises low-impact fishing as "utilising selective fishing techniques which have a low detrimental impact on marine ecosystems or which may result in low fuel emissions, or both".**[3]

Yet, the European Commission's 2023 report on the implementation of the CFP and its action plan to protect and restore marine ecosystems for sustainable and resilient fisheries both draw the same worrying conclusion: **10 years after the last reform of the CFP, the necessary transition towards environmentally sustainable, economically viable and socially responsible EU fisheries is still far from achieved.**[4] Despite significant efforts and improvements, fisheries management still often remains grounded in a productivist approach, failing to effectively address fishing's preponderant role in the destruction of the marine environment.[5] As water temperatures continue to rise,[6] marine ecosystems are struggling to recover against the dual forces of climate change[7][8] and overfishing. It is now evidently clear that we must urgently reconcile our broken relationship with nature. This includes rethinking the way we fish.

WHERE TO START

Low-impact fishing is a path rather than a fixed destination. It entails a constant reevaluation of our practices, asking ourselves: **how can we continue to feed millions of people while minimising fisheries' negative environmental impacts, maximising societal benefits and improving policies and governance?** Because fisheries are as numerous as they are diverse, there is no single response to this question. Similarly, as we learn more about the effects of the climate and biodiversity crises on the ocean, in addition to expanding our scientific, technical and technological horizons, responses to this question are continuously evolving.

To finally concretise and operationalise the EU's objective of ecosystem-based and sustainable fisheries, fishers, scientists, government authorities and civil society must join forces to evaluate each fishery's impacts, identify and address its shortcomings as best as possible, evaluate and measure progress to make practices more sustainable and, once this is done, repeat the process anew. This publication and the assessment methodology prepared with it aim to support this process and thus enable a prompt and meaningful transition towards low-impact fisheries that benefit all life below and above water.

FAIR GAME

Fishing is competitive by nature. For this competition to be fair, effective monitoring, control and enforcement is necessary for everyone to play by the book, for management to be informed by robust and reliable data, and to reduce the risks of illegal, unreported and unregulated fishing.

THE ~~OLD~~ YOUNG (WO)MAN AND THE SEA

A sustainable, inclusive and profitable sector that offers social and economic benefits for current and future generations, such as good working conditions and a fair standard of living, will encourage many young people, particularly women, to spend their days at sea.

A PERFECT MATCH

"Right gear, right place, right time": low-impact fishing is the subtle art of finding the tailored combination that works best for the fish, the fisher and everything around and in between.

MONEY IS WHERE THE (SUSTAINABLE) FISH IS

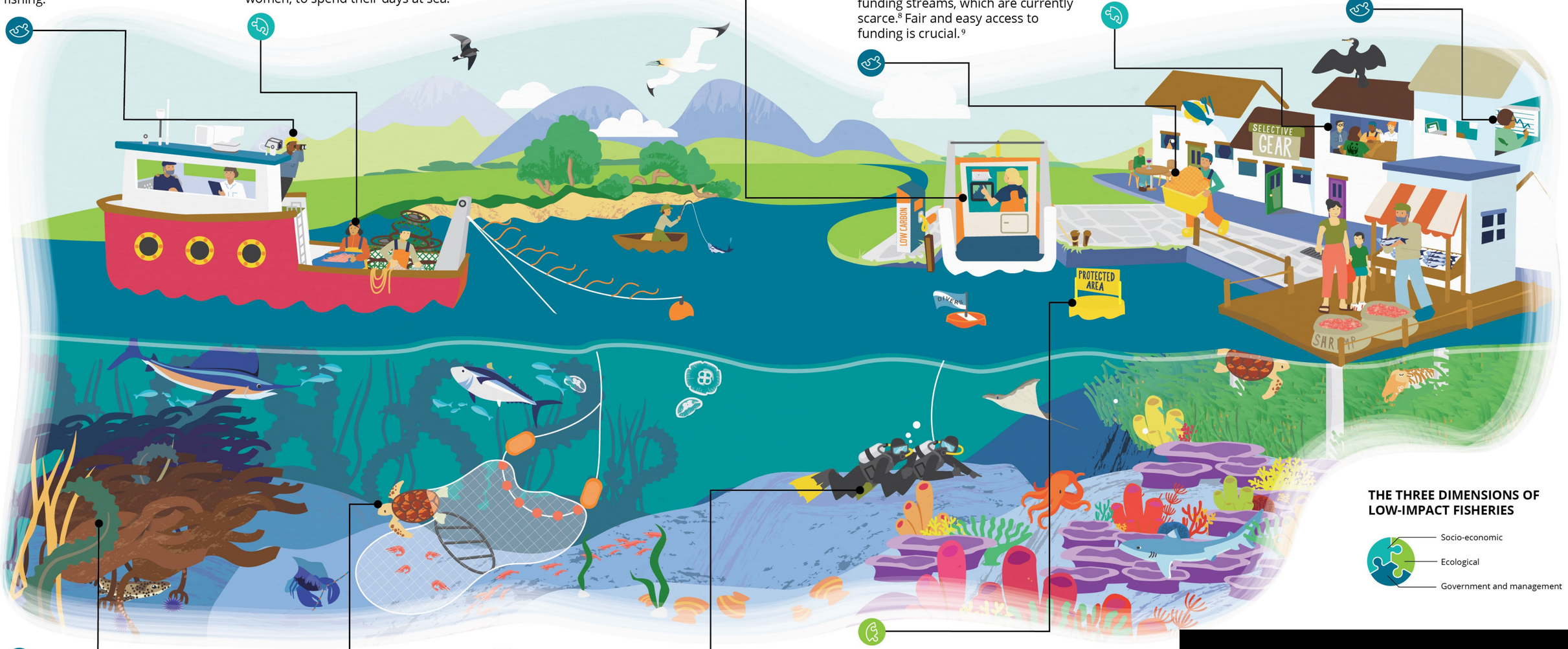
Fishers can benefit financially from restored ecosystems and sustainable fishing practices – and financial support should encourage this transition. Harmful subsidies, such as those supporting fossil fuels, should be redirected to support such funding streams, which are currently scarce.[8] Fair and easy access to funding is crucial.[9]

COMMUNICATION IS KEY

Common goods = common responsibility. Inclusive stakeholder engagement is crucial to ensure management measures are politically coherent, supported by the industry, informed by scientists, understood by fishers and adequately funded and enforced by authorities. At WWF, we call it *together possible*.

FROM VICIOUS TO VIRTUOUS

By distributing catch quotas in a way that favours those trying to fish the most sustainably, authorities can create a virtuous circle where increased sustainability means access to catch more fish. Balancing social, environmental and economic objectives when making these decisions is of utmost importance.



THE THREE DIMENSIONS OF LOW-IMPACT FISHERIES

- Socio-economic
- Ecological
- Government and management

CLIMATE-SMART FISHERIES

By protecting marine ecosystems that are strongholds of carbon sequestration, using fuel-efficient fishing gear and accelerating decarbonisation of the sector, fisheries can play a key role in the fight against climate change and ocean warming which threaten wider ecosystems, economies and communities alike.

DON'T CATCH ME IF YOU CAN

Juveniles, non-targeted species, sensitive species... the more that can escape our hooks, traps and nets, the better. Selectivity not only helps restore healthy and productive ecosystems and protect life in our seas, but also helps fish grow larger – and who doesn't want a big catch?

LEAVE NO ONE BEHIND

Local and regional fisheries management measures must be developed with the inclusive participation of local community representatives. By following an ecosystem-based approach, such measures will help ensure that livelihoods of local communities are safeguarded and will better support local economies in the long term.

KNOW AND RESPECT YOUR LIMITS

Protecting key areas such as marine nurseries, spawning grounds and sensitive habitats supports ocean health, productivity and resilience. Much like towers need solid foundations to prevent their collapse, so do fish populations. The more we let these species grow and exist in plentiful numbers, the more there is for us to catch.

AN OCEAN OF RESPONSIBILITY

ASSESSING LOW-IMPACT FISHING

To prepare this briefing, WWF has developed a publicly-available methodology as a tool to evaluate the current impact of a given EU fishery based on 28 criteria and 11 principles across three dimensions ("socio-economic", "ecological", "governance and management") – it is shown on the next page. A preliminary assessment made using this "Low Impact Fishing tool" (LIF tool) can be used to **identify strategic next steps and act as a benchmark from which to measure progress** in a fishery's low-impact fishing journey.

It should be noted that the list of indicators included in the tool is **non-exhaustive and should not be considered as a benchmark for validation or certification of a fishery as "low-impact".** Fisheries greatly differ in their nature and context, and must therefore be analysed in detail on a case-by-case basis to account for the important nuances which may exist. **This methodology thus remains strictly an advisory guidance tool.**

Each indicator contains a single question, which is evaluated using five colour-coded categories where green or light green reflects a satisfactory performance (low impact), yellow calls for further improvement (medium impact), and orange or red indicates an unsatisfactory performance (high impact). Guidance is provided for how best to score each indicator. Indicators that cannot be assessed due to insufficient knowledge or data are marked as such. If more than 30% of the indicators cannot be assessed, the evaluation is not reliable. The results are then grouped per dimension and an overall score, indicated by an average percentage, is established. In this overall score, the ecological dimension is granted a higher ponderation factor (50%), as the "socio-economic" and "governance and management" dimensions (25% each) ultimately depend upon the fishery's good ecological status.

Defining an exact performance threshold for each indicator is challenging yet necessary in order to provide actionable guidance. While each threshold is informed by available science and literature, and scoring should be justified, fishery evaluations rely on each assessor's subjectivity and the level of local ecological knowledge, particularly for qualitative indicators (such as criteria 6.2 or 9.2). Further, complexities can arise, such as when assessing fishing operators who use multiple types of fishing gear and/or (as is often the case) target multiple species.

The LIF tool has been tested, adapted and finally applied to assess two Portuguese fisheries: an octopus traps and pots fishery in Algarve (see page 10), and Goose barnacle harvesting in Berlengas Natural Reserve (see page 12).

A detailed explanation of how to use this evaluation tool and the complete evaluations of the two fisheries assessed are available in the Technical Annex that accompanies this publication.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Overview of the low-impact fishing assessment methodology

Criteria noted in black are those WWF deems critical to have a reliable score, since they assess whether adequate data collection is in place to be able to evaluate the remaining criteria.

The question and guidance for each criteria can be found in the Technical Annex accompanying this publication.

Dimension	Principle		Criteria
SOCIO-ECONOMIC	1	The rights and interests of communities associated with the fishery are adequately considered, including in any ongoing management arrangements	1.1 Coastal communities
	2	There are no systemic transgressions of a person's or community's fundamental human rights (personal safety, fair work and pay, gender equality)	2.1 Health & Safety
			2.2 Income
			2.3 Human, collective and labour rights
	3	Fishing does not undermine food security (including local nutritional requirements) or the broader livelihood options of local communities	3.1 Food security
			3.2 Livelihoods
	4	An economic assessment of costs and benefits of the fishery takes account of the impacts on other uses and values of the fish, and associated habitat/places	4.1 Maritime Spatial Planning
			4.2 Blue economy principles
ECOLOGICAL	5	The fishing activity is exploiting the stock to a level that does not run down the natural capacity to replenish itself	5.1 Monitoring target stock
			5.2 Healthy population of targeted stock
			5.3 Sustainability of the fishery
			5.4 Management measures
	6	The fishing activity causes minimal damage to associated habitats and does not result in significant loss of biodiversity or alteration to the seabed or water quality	6.1 Habitat monitoring
			6.2 Habitat health and resilience
	7	There is marine protection through permanent or seasonal closures, providing recruitment insurance	7.1 Identification of key spawning and nursery areas
			7.2 Management measures for spawning and nursery areas
	8	The fishing activity minimises the impact on non-target species and does not hinder recovery of protected, endangered or threatened species	8.1 Monitoring of endangered, threatened and protected (ETP), as well as sensitive species
			8.2 Impact on ETP and sensitive species
			8.3 Management measures for ETP and sensitive species, and for non-target species
GOVERNANCE & MANAGEMENT	9	The fishery excludes illegal take, including by non-allowed methods and fishing that is unreported	9.1 Data collection on fishing effort & catch
			9.2 Fisheries management framework & IUU fishing
	10	Management and governance arrangements provide for the sustainability of the fishery, including best science-based harvest control rules (management measures), facilitation of adequate reporting, monitoring and surveillance/ compliance, high levels of transparency, and regular assessment and readjustment	10.1 Monitoring, Control and Surveillance
			10.2 International laws and scientific advice
			10.3 Certification schemes and transitionary measures
	11	A precautionary approach is applied regarding ecological, social and economic impacts of the fishery, including climate change impacts	11.1 Ecosystem-based Fisheries Management
			11.2 MPAs / N2000 sites
			11.3 Fuel consumption
			11.5 Fishing gear pollution

MEASURING FISHERIES' IMPACTS IN PORTUGAL

Octopus traps and pots fishery in Algarve

As one of the most important Portuguese regions for octopus fishing, this species represents a key fishing resource in the Algarve, both in weight and in value. Small-scale fishing with traps and pots represents 90% of octopus catches in this region, and is the means of subsistence for more than 1,500 people whose livelihoods are directly tied to the sector.

In addition to problems common to other small-scale fisheries in the EU (e.g. ageing workforce and lagging fleet modernisation[10]), this fishery faces challenges of effective management and accurate stock assessments due to insufficient data, many different and diverse small-scale operators, octopuses' short lifespans and annual fluctuations in population abundance which, cumulatively, make it difficult to define sustainable catch quotas.

Using the LIF tool, the Algarve's traps and pots octopus fishery scored 52% ('medium impact with some gaps and areas to be addressed') overall. There is a lack of information regarding the health and resilience of the habitats, which make it difficult to assess the possible impacts of the fishery. The monitoring, control and surveillance measures currently in place are insufficient, leading to, for example, a high amount of illegal traps and pots in the fishing areas. Finally, poor oversight over recreational fishing activities is of serious concern, as there are currently no estimates of how much is being caught by recreational fishing, rendering all total catch figures inaccurate. On the other hand, from a socio-economic perspective, the fishery provides stable and profitable jobs to many families.

This fishery is currently transitioning towards co-management and fishers are starting to share their operational data as part of this strategic shift. Co-management is a shared system where fishery management plans are jointly agreed by a committee consisting of scientists, government representatives, fishers and civil society. Co-management allows stakeholders to have a say in the future of the fishery while supporting better understanding of and compliance with agreed measures. Overall, co-management enhances the probability of achieving a low-impact fishery. Therefore, a future assessment of this fishery would likely show improved performance, such as once the co-management committee is in place and an agreed management plan is implemented.

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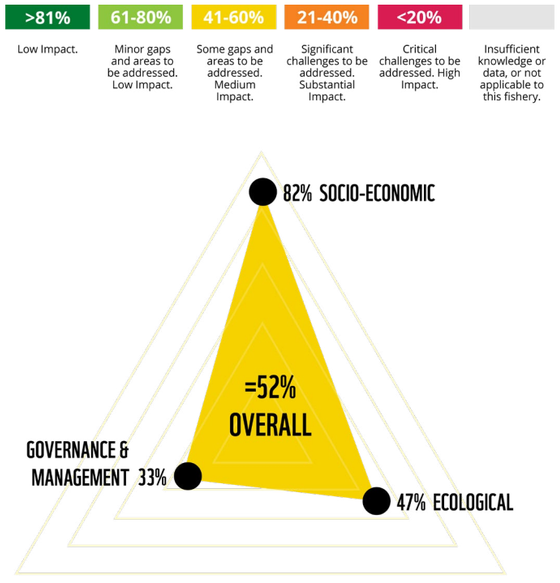


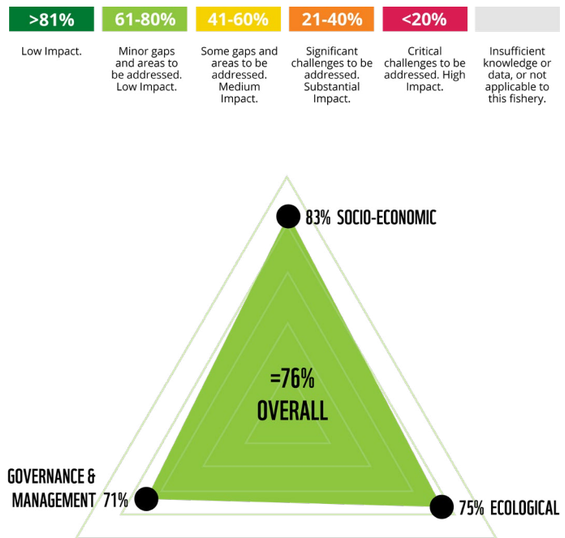
LIF tool criteria	Low-impact fishing performance
1.1	Coastal communities
2.1	Health & Safety
2.2	Income
2.3	Human, collective and labour rights
3.1	Food Security
3.2	Livelihoods
4.1	Maritime Spatial Planning
4.2	Blue economy principles
5.1	Monitoring target stock
5.2	Sustainability of target stock
5.3	Sustainability of fishery
5.4	Management measures
6.1	Monitoring of habitat
6.2	Habitat health and resilience
7.1	Identification of key spawning and nursery areas
7.2.	Management measures for key spawning and nursery areas
8.1.	Monitoring of ETP and sensitive species
8.2.	Impact on non target, ETP and sensitive species
8.3.	Management measures for ETP, sensitive species, and for non-target species
9.1	Data collection on fishing effort
9.2	Fisheries management framework & IUU
10.1	Monitoring, Control and Surveillance
10.2	International Laws and Scientific advice
10.3	Certification schemes and transitory measures
11.1	EBFM
11.2	MPAs / N2000 sites
11.3	Fuel consumption
11.4	Fishing gear pollution

Goose barnacle harvesting in the Berlengas Natural Reserve

The Goose barnacle (*Pollicipes pollicipes*) is one of the most popular seafood items from the Portuguese coastline. Due to its natural characteristics, the Berlengas archipelago, a UNESCO Biosphere Reserve, is a prime location for Goose barnacles. Regulated since 2000, this fishery is of considerable socio-economic importance both at the local and regional level, with 40 licensed professionals collecting this difficult to harvest, but commercially valuable species.

Assessed with the LIF tool, Goose barnacle harvesting scored 76% ('low impact with minor gaps and areas to be addressed'). The socio-economic dimension earned particularly high scores, for instance with regards to inclusive decision-making thanks to the co-management committee that has been in place since 2021. The ecological dimension also scored well, due notably to the high selectivity of this fishery, good monitoring of the stock and robust technical management measures established based on the best available information.

However, the management and governance dimension should be subject to further improvement, especially regarding the need to apply a precautionary and ecosystem-based approach to fisheries management that takes the impacts of climate change into account. A management plan, co-created by all stakeholders, has been in place from 2023 and further improvements are therefore likely to result from its implementation, although this plan currently lacks adequate funding for it to be properly implemented.



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WAY FORWARD & RECOMMENDATIONS

Knowing where to start is the very first step towards progress. Evaluating fisheries using tools such as those developed with this publication help us identify and prioritise measures and actions that can best support minimising a fishery's negative impacts, and measure its progress over time.

But this responsibility is not solely in the fishers' hands: the EU and its Member States also have a crucial role to play to facilitate and incentivise a transition towards low-impact, environmentally sustainable, economically viable and socially responsible fisheries, in line with the EU's fisheries and environmental objectives laid out in the CFP, the EU Biodiversity Strategy, the UN 2030 Agenda and COP15 commitments, to name a few.

To support fishers in achieving low-impact fisheries, the EU and its Member States must:

- Facilitate fisheries co-management by developing and implementing local, national or regional legislative frameworks. Successful co-management schemes have been shown to deliver environmental, social and economic benefits.[12]
- Support the research, development and widespread uptake of more selective fishing gear, or gear with a reduced impact on the seabed and/or habitats. Successful trials and projects have already been conducted in the EU[13] and more should be fostered and amplified.
- Encourage decarbonisation of the fisheries sector by increasing vessel energy efficiency, as well as enabling the development and use of low-carbon energy sources. This will also help reduce fuel costs.
- Protect carbon-rich seabeds from disruptive fishing activities. This will support the role fisheries play in achieving the European Green Deal goal of carbon neutrality by 2050.
- Facilitate access, particularly for small-scale fishers, to dedicated European or national funds (e.g. European Maritime Fisheries and Aquaculture Fund (EMFAF), NextGenerationEU) to support and incentivise the transition towards low-impact fisheries. The EMFAF represents a very small fraction of the total EU budget; it should be used constructively and, ultimately, increased.
- Phase-out harmful fisheries subsidies (e.g. fuel), redirecting funds to support fishers working to minimise their environmental impacts.
- Allocate fishing opportunities in a transparent, objective and incentivising manner, as required under article 17 of the CFP, to encourage fisheries with low environmental impacts and/or high societal benefits.
- Restrict and phase out the most destructive types of fishing gear with the inclusive participation of stakeholders. This phase out should focus especially on gear used in sensitive ecosystems and in areas subjected to cumulative human pressures.
- Guarantee a fair transition for fishers to low-impact fisheries via better support for research and data collection on the socio-economic dimension of the CFP.
- Promote the use of more selective and/or less damaging fishing gear via ecosystem-based Maritime Spatial Planning. This approach to managing our seas will notably establish fishing zones that are accessible exclusively to fishing activities with little or minimal environmental impact.
- Provide training, technical and financial support to help fishers adopt low-impact fishing gear.
- Apply a precautionary approach to marine conservation, fisheries management and exploitation of living aquatic resources, taking account of the best scientific evidence available. The absence of adequate scientific information should not be used as a reason for postponing or failing to take measures to conserve target species, associated or dependent species, and non-target species and their environment.

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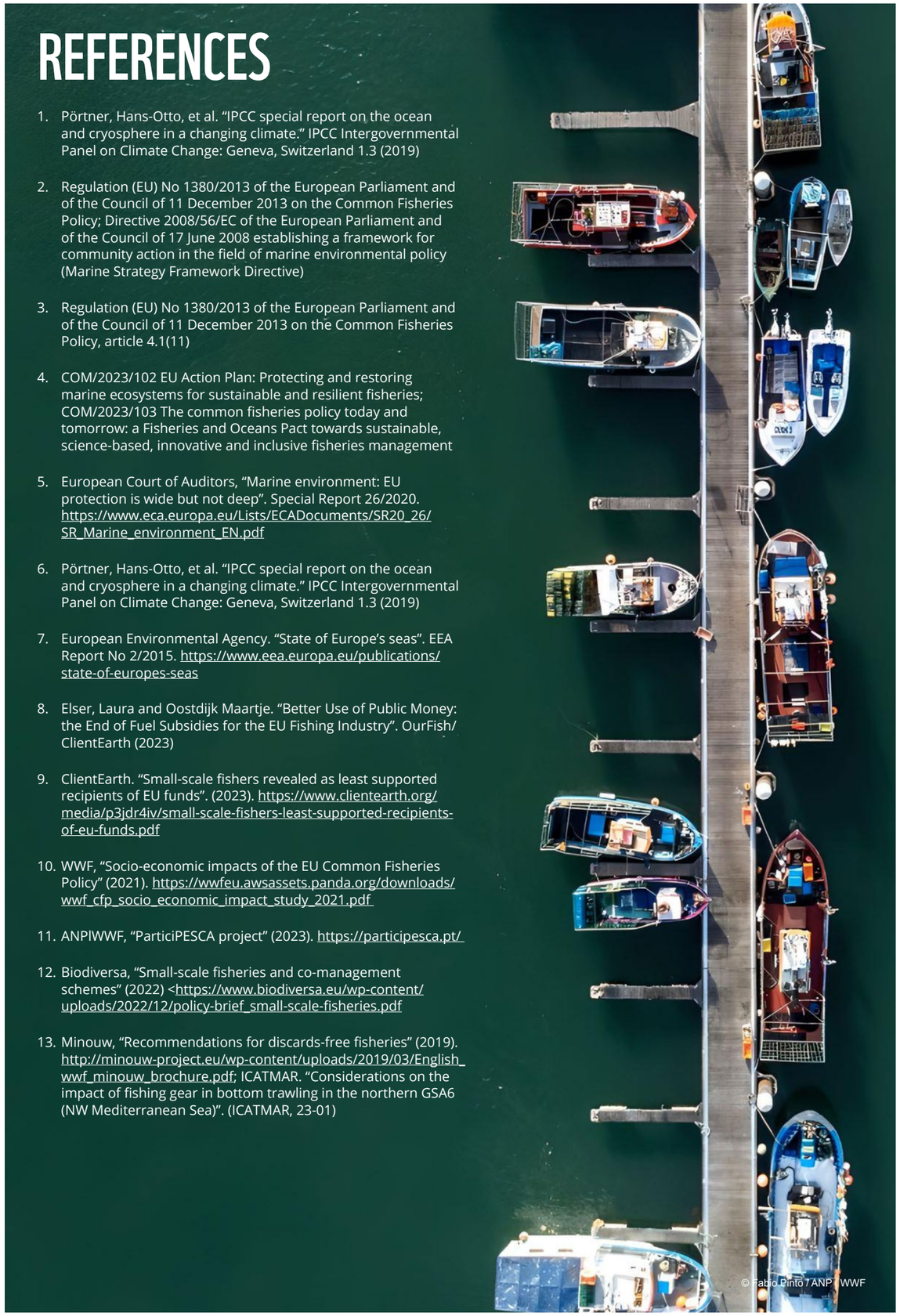

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