



ECOScope

CITIZENS' VIEWS AND PREFERENCES FOR

ECOSYSTEM-BASED FISHERIES MANAGEMENT



EcoScope

EcoScope¹ (Ecocentric management for sustainable fisheries and healthy marine ecosystems) is a Horizon 2020 project that promotes effective ecosystem-based approach to fisheries management (EBFM) through a series of e-tools. These include: ecosystem models for eight European case study areas² to test the consequences of management and policy scenarios; a platform³ to visualise and map a large quantity of data, including oceanographic, biological and fisheries data; a toolbox with three sustainability scoring indices⁴ that are based on interdisciplinary and EBFM relevant indicators; a new fisheries edition of the Maritime Spatial Planning Challenge Simulation⁵ game; an academy⁶ with nine free online courses on ecocentric fisheries management; and a mobile application⁷ for enhancing the engagement of the public in fisheries management through citizen science. The project runs from September 2021 to August 2025.

One of EcoScope's aims was to understand the perceptions, preferences, and values citizens have for Ecosystem-Based Fisheries Management (EBFM). This policy brief provides a summary of those findings.

EcoScope partner organisations

The consortium consists of 24 partners representing academic research, NGOs and SMEs, and covering all geographical areas of the marine ecosystems included in the project.



¹ <https://ecoscopium.eu/>

² <https://ecoscopium.eu/project-regions>

³ <https://data.ecoscopium.eu>

⁴ <https://ecoscopium.gr/>

⁵ <https://www.mspchallenge.info/>

⁶ <https://ecoscope.getlearnworlds.com/>

⁷ Download app at: https://play.google.com/store/apps/details?id=com.bimbo.ecoscopos&pcampaignid=web_share&pli=1 and <https://apps.apple.com/us/app/ecoscopos/id6476587517>

Ecosystem-Based Fisheries Management in Europe

In Europe there are many regulations that directly or indirectly apply to fisheries. These include the Common Fisheries Policy⁸, the Marine Strategy Framework Directive⁹, the Habitats and Birds Directives¹⁰, the Maritime Spatial Planning Directive¹¹ and the Nature Restoration Regulation¹². All these regulations promote an ecosystem-based management approach. Ecosystem-Based Fisheries Management (EBFM) shifts management practices from traditional single-species management to approaches that encompasses multi-species interactions, environmental forcing, habitat status and human activities. EBFM manages fish stocks to ensure that they produce maximum yield (e.g. through fishing capacity regulations and quotas), while ensuring that enough fish stay in the system to feed the rest of the ecosystem. However, in practice, most fish stock management decisions in Europe are still based on single-species assessments and true implementation of EBFM is lacking¹³.

EBFM decisions in Europe should be based on scientific data and the precautionary principle, and should involve stakeholders, for instance through the Advisory Councils¹⁴: stakeholder-led organisations, which include industry representatives and other interest groups, such as NGOs. They provide the European Commission and EU countries with fisheries management advice. However, the views and preferences of the general public are generally not well known, and hence not considered in policy decisions.

Policy affects communities through its impact on food provision, but also via its effects on ecosystem services, health, livelihoods and wellbeing, because human health is intrinsically linked to Ocean health¹⁵. Therefore, it is important to understand the views, values and preferences that citizens have for ecosystem-based fisheries management and the economic realities of these policies.



⁸ Regulation (EU) N° 1380/2013: <https://eur-lex.europa.eu/eli/reg/2013/1380/oj>

⁹ Directive 2008/56/EC: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32008L0056>

¹⁰ Council Directive 92/43/EEC: <https://eur-lex.europa.eu/eli/dir/1992/43/oj/eng> and Directive 2009/147/EC: <https://eur-lex.europa.eu/eli/dir/2009/147/oj/eng>

¹¹ Directive 2014/89/EU: <https://eur-lex.europa.eu/eli/dir/2014/89/oj/eng>

¹³ Froese et al., 2025. Systemic failure of European fisheries management. Science 388,826-828(2025). DOI: 10.1126/science.adv4341. Available at: <https://www.science.org/doi/10.1126/science.adv4341>

¹⁴ https://oceans-and-fisheries.ec.europa.eu/fisheries/scientific-input/advisory-councils_en

¹⁵ See European Marine Board, 2020. Policy Needs for Oceans and Human Health. EMB Policy Brief N°. 8, May 2020. ISSN: 0778-3590 ISBN: 9789492043962 DOI: 10.5281/zenodo.3822099. Available at: https://marineboard.eu/sites/marineboard.eu/files/public/publication/EMB_PB8_Policy_Needs_v4_web_0.pdf

Studying citizens' views and preferences related to EBFM

To understand the societal views and preferences for EBFM, the EcoScope team conducted a survey in three countries with access to three European Seas: The United Kingdom in the Atlantic Ocean, Bulgaria in the Black Sea and Malta in the Mediterranean Sea. In each country, more than 500 people were asked to respond to over 100 questions.

The people responding to the survey represented the broader population of each country in terms of age, gender and region. The survey included respondents of diverse education and income levels, from ethnic majorities and minorities, and with a range of marital and employment statuses.

What were the main findings?

In all three countries, most people:

- Eat fish at least once a week.
- Are willing to pay extra for fish labelled as “sustainable stock” or “protects marine life”.
- Favour regulation for better management of fisheries.
- Have never heard of Ecosystem-Based Fisheries Management (EBFM).



Fish consumption habits

The vast majority of people eat fish and fishery products at least once a week at home. Older people tend to eat fish and fishery products at home more regularly, while younger people eat fish more frequently outside the home. A small minority rarely or never eat fish or fishery products, mainly because they do not like the sight, taste or smell, or because they are vegan or vegetarian, which was the second most important reason. Those who regularly buy fish or fishery products mostly considered the appearance of the product and price as important reasons for buying or not buying fish.

About one in four households had concerns about food scarcity. These concerns were more common among younger households, low-income households, households with more children, and where job-security was an issue. Households that reported issues with affordability or availability tend to eat fish or fishery products more frequently than others, possibly because fish and fishery products can be a relatively cheap source of protein.

Most important aspects considered when buying fish or fishery products

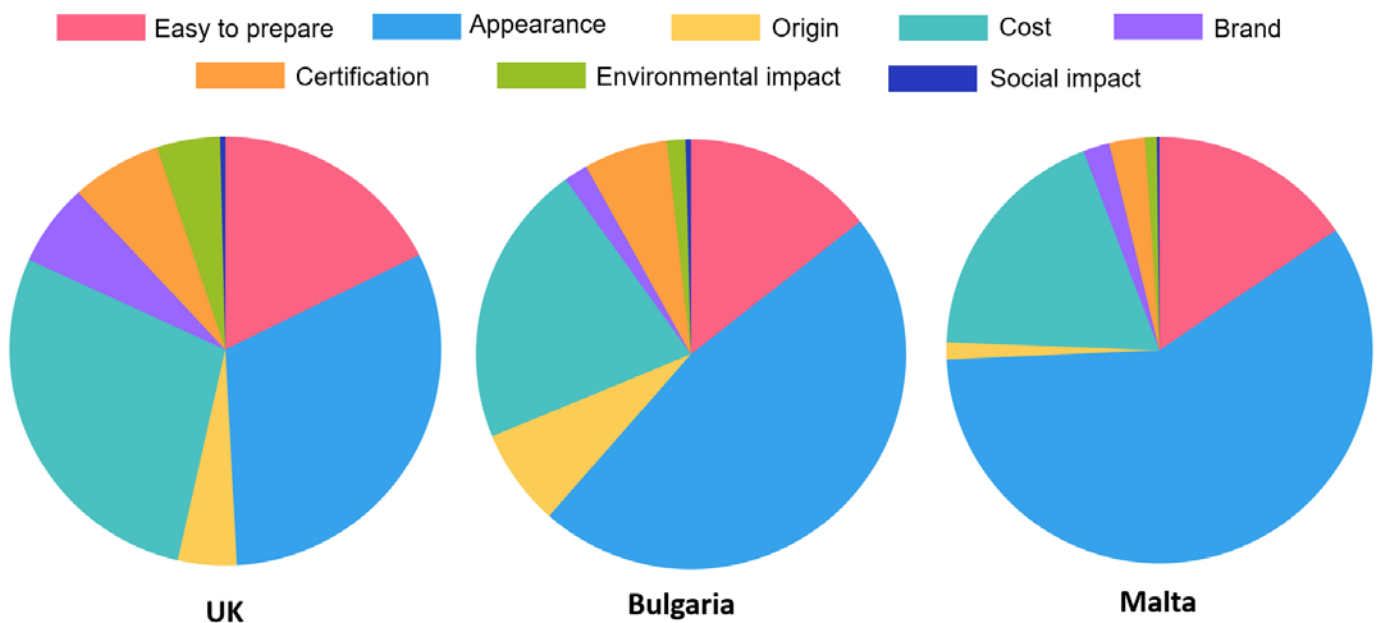


Figure 1: Most important aspects considered by citizens when buying fish or fishery products in UK, Bulgaria and Malta.



Most people have never heard of Ecosystem-Based Fisheries Management



Ecosystem-based Fisheries Management (EBFM) awareness

In all three countries, only a very small minority of people had heard about EBFM: 74% of the respondents had never heard about EBFM, and only 11% knew what it meant. Some descriptions that came close to the scientific concept were:

- “A fishery where fish aren’t plundered so that species can thrive. Also, where other marine life isn’t diminished. A system that considers the environment and the ecosystem of our waterways”;
- “A system designed to balance the environmental effects of fishing with the need to provide food and also to give employment”;
- “A system of managing fishing that involves all elements”;
- “Consideration of fish and the consumption of fish stocks in terms of the whole marine ecosystem, not just the fish”;
- “A holistic approach that recognises all the interactions within an ecosystem rather than considering a single species or issue in isolation”;
- “Ensuring that the fishing industry conducts its business in harmony with the ecosystem”;
- “Aims are to manage fish stocks in a way that suits the fishermen and the fish stocks in an ecological way”.

As one respondent put it *“I haven’t heard of this before, but it does sound a more environmentally-friendly way of controlling fishing quotas.”* There were some misconceptions, such as confusing EBFM with fish-farming and some cynical replies, such as *“It is probably some pseudo-science term dreamt up by Brussels to confuse and blindside the general population”*. The feature that was most often mentioned in the definition of EBFM was protection of the marine environment.

Although the concept of EBFM was unknown to most people, they were willing to pay more for fish that were labelled as being managed through EBFM. These labels stated that the fishery maintained a sustainable fish stock,

or that the fishery protected other marine life, or had a low carbon footprint, or practised inclusive management. In hypothetical shopping scenarios, they chose the more expensive EBFM labelled fish 80% of the time. The labels for which the majority was willing to pay more were the ones that declared that the fishery protected other marine life or that it maintained a sustainable fish stock, and they were prepared to pay the most for the one that declares that the fishery ‘Protects marine life’. For instance, in the UK they were willing to pay an extra €3 on a fish that costs €23. This shows that even though most people are not aware of the concept of EBFM, they agree with the principles and would reflect that in their economic decisions.



Perception of fisheries

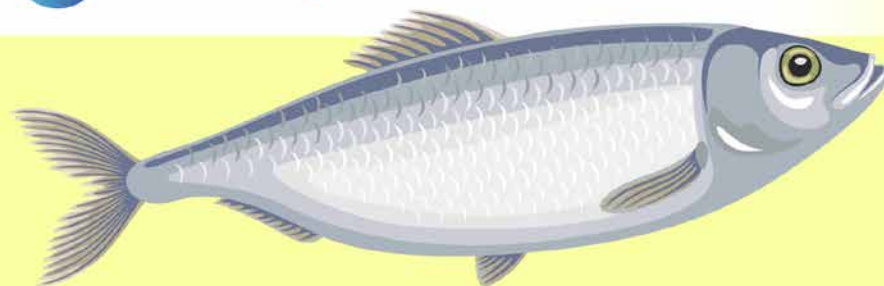
In general, Europeans surveyed thought that fisheries have a negative impact on fish stocks and on other marine life, but a positive impact on coastal communities and the economy. They did not know what impact fisheries could

have on climate change. Overall, people with high trust in government and who favour economic growth over environmental protection had a more positive perception of the fishing industry.

Views on fisheries policy

Citizens supported the use of taxpayer money for pro-environmental fisheries management. The survey results showed significant support for fisheries interventions that would safeguard the stocks and protect marine life. Policies that reduce fish discards were strongly supported, and actions that target environmental impacts of fisheries were preferred over those that target the economic and social impacts. This support was strongest among people with pro-environmental sentiments. People who were concerned about climate change preferred actions that reduce the climate change impact of fisheries.

Citizens were also willing to cooperate in fisheries management. Most people were willing to report illegal coastal activities using a digital app, although they would prefer to do it anonymously. In addition, they were willing to financially support non-profit organisations working for EBFM-related goals. Those with pro-environmental sentiment were more willing to donate.



People favour regulation for better management of fisheries



Marine ecosystem services and wellbeing

Citizens experienced positive emotions in relation to the Ocean: there were higher scores of happiness and life satisfaction among those who visited the coast (an intangible ecosystem service)¹⁶, consumed fish (a tangible ecosystem service), or if they acquired more knowledge about the sea

(an indirect ecosystem service). However, income, health and lifestyle had a stronger effect on wellbeing than the other factors. Conversely, hearing about the negative impacts of fisheries made people feel negative, even when given information about how we can minimise these impacts.

¹⁶ Marine ecosystem services are the benefits that humans receive from the processes, functions, and structure of the marine environment, contributing to human wellbeing, health, and economic activities. For more information see the European Marine Board Future Science Brief on Valuing Marine Ecosystem Services: Austen et al., (2019) Valuing Marine Ecosystems - Taking into account the value of ecosystem benefits in the Blue Economy, Coopman, J., Heymans, J.J., Kellett, P., Muñiz Piniella, A., French, V., Alexander, B. [Eds.] Future Science Brief 5 of the European Marine Board, Ostend, Belgium. 32pp. ISBN: 9789492043696 ISSN: 4920-43696 DOI: 10.5281/zenodo.2602732. Available at: https://marineboard.eu/sites/marineboard.eu/files/public/publication/EMB_FSB5_Valmare_Web_2.pdf



Credit: Daniela Anahi Asar

People were happier and more satisfied if they had visited the coast.

How does this compare to fisheries stakeholders?

A complementary study on the EcoScope website asked similar questions to 240 scientists and fisheries stakeholders from 30 countries (including from outside Europe), with large numbers of respondents from Malta, Spain and Greece. These stakeholders had higher levels of education, greater financial security, and higher life satisfaction and happiness compared to the general public. More than half of the stakeholders had received marine education at university level, whereas the public respondents mostly received such education at primary or secondary levels.

Similar to the general public, most of these stakeholders ate fish at least once a week. However, the main reasons for these stakeholders not eating fish were vegetarianism/veganism and environmental concerns, in contrast to the general public where not liking the sight, taste or smell was the main reason. For both groups, appearance was the most important aspect when buying fish or fishery products, but cost and ease of preparation were more important for the public than for stakeholders.

Most stakeholders had heard of EBFM, and over half of them knew what it meant, as opposed to the public where only a small minority had heard of it or knew what it meant. Although both groups thought that fisheries have a negative impact

on marine life and fish stocks, the stakeholders consistently perceived these impacts to be more negative. Like the public, stakeholders who favoured economic growth viewed fisheries less negatively than those with pro-environmental sentiments. Both groups thought that fisheries have a positive economic and social impact.

There was strong environmental awareness among stakeholders, with over 80% identifying as pro-environmental and expressing concern about climate change. They disagreed with prioritising economic growth over environmental protection. Among stakeholders, trust in the European Union surpassed trust in national governments, reflecting a preference for broader governance frameworks.

The vast majority of stakeholders agreed with using taxpayer money for fisheries management purposes, with almost 90% supporting its use for prioritising data-driven decisions, minimising harm to marine life and reducing overfishing. This is similar to the public, where the majority also supported using taxpayer money for improving fisheries management. Both stakeholders and the general public were willing to report illegal coastal activities using an app and both preferred anonymous reporting, with stakeholders showing greater overall willingness to report such activities.

Summary

These results show that fish and fisheries products are important in the diets of Europeans. The willingness of citizens to: use taxpayer money for fisheries regulation, voluntarily report illegal activity, donate money to promote Ecosystem-Based Fisheries Management (EBFM), and pay

more for fish with EBFM related labels, highlights that Europeans support the policies that underpin EBFM, even if they do not understand what the term means. The results also show that citizens' and stakeholders' views and preferences broadly align, but they are not always the same.

Recommendations

We recommend that policymakers and scientists:

- 1) **Educate the general public about EBFM and its benefits.** This study showed that raising awareness is important, because people that were more aware of EBFM were also more supportive of EBFM policy implementation. To effectively educate the general public, avoid using scientific and technical terms, and emphasise the EBFM characteristics which the public can understand, such as protecting marine life, or use terms such as “eco-friendly, sustainable seafood”. Tailor campaigns to the cultural and educational context and pre-test publicity campaigns ahead of roll-out to avoid unintended effects.
 - 2) **Consider public concerns and priorities when designing fisheries regulations.** This study showed that citizens and stakeholders favoured pro-environmental regulation, particularly policies that minimise harm to marine life, reduce overfishing, and address climate change impacts. They also expressed strong support for management decisions being based on sound data and research.
 - 3) **Understand and research the social implications of fisheries policies, such as their effects on food security and other marine ecosystem services that impact individuals and communities.** The implications of fisheries management policies on marine ecosystem services and on the wellbeing of individuals and communities should always be considered.
-

Acknowledgements

The EcoScope project was funded by the European Union's Horizon 2020 Research and Innovation programme, grant agreement N° 101000302. Views and opinions expressed are however those of the authors only and do not necessarily reflect those of the European Union or the granting authority. Neither the European Union nor the granting authority can be held responsible for them.

EMB would like to thank Marie Briguglio, the lead author of both original survey reports, for providing a summary of the survey for this policy brief, and Blue Lobsters IT Limited for the images and infographics¹⁷. EMB would also like to thank all authors of the original survey reports: Marie Briguglio, Glenn Abela, Gilmour Camilleri, Glen Spiteri and Jannike Falk-Andersson, as well as Sheila J. J. Heymans and Kylie Spiteri who worked on the survey among stakeholders.

Authors: Marie Briguglio, Ana Rodriguez Perez, Fernanda Bayo Ruiz, Sheila JJ Heymans

Coordination and editing: Ana Rodriguez Perez, Fernanda Bayo Ruiz & Sheila J. J. Heymans, European Marine Board

External reviewer: Howard Townsend

Additional editorial contribution: the EcoScope Consortium, Paula Kellett

Design: Zoeck

Infographics: Blue Lobsters IT Limited

Cover image: The cover image was AI generated.

Suggested further reading

Briguglio, M., Ramírez-Monsalve, P., Abela, G., & Armelloni, E. N., 2025. What do people make of "Ecosystem Based Fisheries Management"? *Frontiers in Marine Science* 12: 1553838. <https://doi.org/10.3389/fmars.2025.1553838>

Briguglio, M. and Spiteri, K., 2024. Report of Analysis of data from stakeholder throughout the project lifetime. EcoScope Deliverable 8.5. Available here: <https://ecoscopium.eu/deliverables>

Briguglio, M., and Abela G., 2024. Ecocentric management for sustainable fisheries and healthy marine ecosystems: Report on descriptive and quantitative analyses from socioeconomic surveys. EcoScope Deliverable 7.1. Available here: <https://ecoscopium.eu/deliverables>

Keywords

Ecosystem-Based Fisheries Management, public perceptions, public preferences, public views, Europe, fisheries policies

Citation

EcoScope (2025). Citizens' views and preferences for ecosystem-based fisheries management. EcoScope Policy Brief, published by the European Marine Board, Ostend, Belgium. ISBN: 9789464206364. DOI: 10.5281/zenodo.15599381.

Copyright and usage

This is an open-access publication distributed under the terms of the Creative Commons Attribution 4.0 International License (CC BY 4.0). The use, distribution or adaptation in other forums is permitted, provided the original author(s) and the copyright owner(s) are credited, the original publication is cited, a link to the Creative Commons license is provided, and any changes that were made to the original content are indicated. No use, distribution or reproduction is permitted which does not comply with these terms.

¹⁷ The summary, Figure 1, the infographics and the images are also published online on the EcoScope website: Briguglio, M., 2025. Research on Public Perceptions of Ecosystem-Based Fisheries Management: In Brief. Available at: <https://ecoscopium.eu/ecoscope-socioeconomic-survey>

This Policy Brief was written by the
EMB Secretariat and other partners
in the EcoScope project.

PUBLISHED JUNE 2025

European Marine Board IVZW
Belgian Enterprise Number: 0650.608.890
Jacobsenstraat 1
8400 Ostend Belgium
Tel: +32 (0)59 56 98 00

www.marineboard.eu



**Funded by
the European Union**

This project has received funding from the European Commission's Horizon 2020 Research and Innovation programme under grant agreement N° 101000302. Project coordinator: Aristotle University of Thessaloniki, Greece. The information and views of this website lie entirely with the authors. The European Commission is not responsible for any use that may be made of the information it contains.