

Ocean Literacy and Coastal Connections in Ireland

Summary Report 2023



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Executive Summary

As management of our global ocean and coastlines becomes ever more complex, there is a growing call for improved integration of social sciences within marine and coastal decision-making. Recent high-profile campaigns and media coverage have triggered an unprecedented outpouring of public awareness and concern for our seas, and more specifically, how societal behaviour is impacting them.

Defined as “having an understanding of your influence on the ocean and its influence on you”, ocean literacy has evolved in the two decades since its inception and is a concept which now encompasses the relationship between people and the ocean, coasts and seas. The United Nations Decade of Ocean Science for Sustainable Development has highlighted ocean literacy as a catalyst for change. As a result, there has been a noticeable increase in the demand for improved understanding of ocean literacy across society. This has prompted various national studies in countries such as the UK, Canada, and Brazil and now Ireland.

Recognising the ten dimensions thought to be included within the concept of ocean literacy, this study sought to evaluate existing levels of ocean literacy across Ireland. Through an online questionnaire, 1293 people provided their views on their relationship with Ireland’s coast and seas, how they feel about the marine environment, how they spend their time when they visit the coast, what they think is most important about the marine environment, and what concerns them.

With responses gathered from across Ireland, this report provides valuable insights into existing levels of ocean literacy. Key findings included in the report are:

- 60% of Irish people feel awe or wonder when they think about the marine environment, while 47% feel concerned about the marine environment.
- Protecting the marine environment is important to almost everyone, with 99% of respondents indicating that it is either important or very important to them on a personal level.
- There is widespread support for the designation of Marine Protected Areas (MPAs) in Ireland’s maritime area, with 98% of people supporting this to some degree. Designation of MPAs was also identified by respondents as one of the top actions that the Irish government should be taking to protect Ireland’s coast and seas.
- Overall, 68% of people recognised that their lifestyle has some form of impact on the marine environment, with only 19% indicating that they felt that they had no impact at all on the marine environment around Ireland.
- Results found that people in Ireland are taking a range of different actions to protect the marine environment, with 89% suggesting that they have reduced their use of single-use plastics, 66% reporting that they have reused products, and 56% indicating that they have avoided buying and using products known to harm the marine environment.
- People across Ireland use the marine environment in a wide range of ways, illustrating a rich and diverse set of relationships with the coast and sea.
 - 94% of people indicated that they had visited a coastal place at least once in the previous year, and 63% of people mentioned that they go sea swimming, 52% go for a walk, and 42% look for birds and wildlife.

This study suggests that people across Ireland are very engaged and connected to their marine environment and are aware of the benefits that they and wider society gain from a healthy ocean. The information gathered through this study provides a valuable benchmark for understanding ocean literacy in Ireland.

This report will be a useful tool for future work in further exploring human-ocean relationships and how understanding these can support Ireland in ensuring a healthy, productive and sustainable future for its maritime area.

Introduction

As management of our global ocean and coastlines becomes ever more complex, there is a growing call for improved integration of social sciences within marine and coastal decision-making. Recent high-profile campaigns and media coverage have triggered an unprecedented outpouring of public awareness and concern for our seas, and more specifically, how societal behaviour is impacting them.

In order for global efforts to better manage both marine and coastal systems to be successful, there is a need to first better understand the complex relationships between society and the sea and the factors that influence these relationships. In addition, there is a need to consider how this growing field of marine social science research¹, and more specifically ocean literacy, can contribute meaningfully to the development of effective marine and coastal policy and planning.

Ireland's maritime area is seven times the size of its land. The Irish government has committed to protecting at least 30% of Irish seas and coasts by 2030. As outlined in a recent report from Fair Seas², achieving this will require significant effort to increase the protected marine area in Ireland from the existing 9%³. Protecting Ireland's maritime area in this way will support preservation and restoration of Ireland's marine biodiversity, ensure a healthy and productive marine environment, which, in turn, will benefit the people and communities of Ireland.

In order to deliver this, it was first necessary to explore the relationships people across Ireland have with their maritime area and to build an understanding of existing levels of ocean literacy within communities. This study explores this and develops a baseline understanding of current levels of ocean literacy and its various dimensions within communities across the Republic of Ireland. This report presents the headline findings for the Fair Seas Ocean Literacy in Ireland survey. The next sections introduce the concept of ocean literacy and the dimensions explored in the survey.

What is Ocean Literacy?

Originating in the USA in the early 2000's as a response to a lack of marine education within the national curriculum, ocean literacy at its very simplest can be defined as 'having an understanding of the ocean's influence on you, and your influence on the ocean'.

Although not a new concept, ocean literacy has gained momentum in recent years, not least due to it being included as a key mechanism for change within the UN Decade of Ocean Science for Sustainable Development⁴.

As the concept of ocean literacy has continued to evolve, so too have the dimensions thought to contribute to a person's ocean literacy. Building on the initial dimensions of Communication, Knowledge and Behaviour, Brennan *et al.*, (2019)⁵ proposed there to be six dimensions of ocean literacy: awareness, knowledge, attitudes, communication, behaviour and activism. However, more recent work (McKinley *et al.*, 2023⁶) has expanded the concept and proposed 10 dimensions (summarised in Table 1, below). Further detail on the evolution of these dimensions and of the concept can be found in McKinley *et al.*'s 2023 paper.

¹ McKinley, E., Acott, T. and Yates, K.L., 2020. Marine social sciences: Looking towards a sustainable future. *Environmental Science & Policy*, 108, pp.85-92.

² [FS full report pages.pdf \(fairseas.ie\)](#)

³ [gov.ie - Minister Noonan announces Ireland's largest protected area for birds \(www.gov.ie\)](#)

⁴ [Ocean Decade – The Science We Need For The Ocean We Want](#)

⁵ Brennan, C., Ashley, M. and Molloy, O., 2019. A system dynamics approach to increasing ocean literacy. *Frontiers in Marine Science*, 6, p.452048.

⁶ McKinley, E., Burdon, D. and Shellock, R.J., 2023. The evolution of ocean literacy: A new framework for the United Nations Ocean Decade and beyond. *Marine Pollution Bulletin*, 186, p.114467.

Dimension of Ocean Literacy	Description
Knowledge	Knowledge has multiple aspects. In the first instance, knowledge is what a person knows about an ocean-related topic and the links between topics. Knowledge also refers to the knowledge a person has about ocean decision-making, opportunities to participate and engage in ocean decisions and behaviours and where/how to get information about ocean issues.
Awareness	Awareness is the basic knowledge and understanding that a situation, problem or concept exists. Awareness should also include knowledge and understanding of the solutions and behaviours that may exist to address these problems in order to foster ownership and empower society to take action.
Attitude	Attitude is related to a level of agreement with or concern for a particular position. Attitude should also include consideration of perceptions, values, and views towards an ocean issue, and how these can lead to policy and societal change.
Behaviour	Behaviour relates to decisions, choices, actions, and habits with respect to ocean-related issues at a range of scales, including from individual, sector and policy actors and institutions with a view to bringing about whole system change.
Activism	Activism is the degree to which a person engages in a wide range of activities, which can constitute activism, such as campaigning (for example through social media, attending public rallies or writing to elected officials) to bring about changes in policy, attitudes, behaviour, etc. Understanding this dimension must also take account of who gets to participate in activism and what the barriers might be.
Communication	Communication in the context of ocean literacy must be considered from multiple perspectives. 1) Communication is the extent to which a person communicates with others, such as family and peer groups, on ocean related topics. 2) Communication should also consider how/where people get their information about ocean issues from –What methods of communication are most effective? 3) At an organisational level, communication needs to consider how institutions and organisations are communicating to different audiences about ocean issues.
Emoceans (Emotional Connections)	Emoceans Emotional connections are about how a person feels and emotionally responds when they think about, are near/within, or consider issues relating to the ocean, coasts and seas. Emotions can be positive, negative or neutral and are all valid responses and will all contribute to behaviour change.
Access and Experience	Access and experience relate to a person's real or artificial (through Virtual Reality, for example) experiences and engagement with the ocean, and the various ways in which they can access these experiences. Barriers to ocean access and experiences should also be considered within this dimension.
Adaptive Capacity	Adaptive capacity relates to a person's capacity to adapt and respond to changing conditions relating to their ocean (e.g., relating to climate change, change in ocean economies, or changing ecosystem structure or function)
Trust and Transparency	Trust and transparency relate to the level of trust a person places in sources of ocean information and knowledge, and their perception of how transparent information and associated platforms and processes are.

Table 1: Dimensions of ocean literacy (Taken from McKinley *et al.*, 2023)

The Ocean Literacy dimensions examined in this report are:

- Awareness
- Knowledge
- Attitudes
- Communication
- Behaviour
- Activism
- Emotional Connection or 'Emoceans'
- Access and experience
- Adaptive Capacity
- Trust and Transparency

Throughout this report, bullet points at the end of each section make it clear which dimension of Ocean Literacy the findings presented relate to.

Methodology

The primary aim of the questionnaire was to develop a better understanding of existing levels of ocean literacy and connections among communities across Ireland. The questionnaire builds on work carried out in the UK in 2021⁷ and 2022⁸ and explores a range of different dimensions of ocean literacy, as described above, by tailoring the questions to suit Irish audiences and ensuring that the questions were representative of current issues and topics relevant to Ireland's coast and seas. In addition, a number of open questions were included in the questionnaire to allow insight to be gathered regarding how, and if, people around Ireland consider the marine environment to have changed in the previous 10 years, and also to gather their views on what a healthy marine environment looks like.

Results

The following sections describe the findings of the Fair Seas Ocean Literacy Survey carried out in 2023. A total of 2095 responses were collected during the data collection period of May to August 2023. Standard data cleaning and processing methods were used to remove any incomplete entries to the questionnaire. The majority of responses removed were due to there only being a response to the first question confirming respondents' consent to participate in the questionnaire. Others were removed due to most questions not having a response.

Descriptive analysis was performed on the data to identify key trends in the data collected. It should be noted that where quantitative data have been used, figures presented in the report have been rounded to the nearest whole percentage. In some instances, where percentages have been summed, this is done to a number of decimal places, which means that figures may appear to be $\pm 1\%$ up or down from the percentages when summed to zero decimal places. Where qualitative data have been used to discuss the findings of the open questions included in the questionnaire, respondent quotes have been presented in italics to support the discussion of the data.

Respondent profile

After data cleaning and processing, the final total sample was 1293 respondents. Of those who responded to the questions about their background and sociodemographic characteristics, 64% were female, 36% male, and less than 1% indicated that they identify as non-binary. The sample population represented a reasonable range of age groups, with the majority of respondents in the age groups 35 to 44 (19%), 45 to 54 (26%) and 55 to 64 (28%), and less representation from groups aged 18 to 24 (3%), 25 to 34 (9%) and over 75 years of age (3%).

In terms of educational attainment, almost all respondents who answered this question had completed secondary education (97%), and 86% completed some form of higher education (42% Bachelor's Degree, 35% Masters level, and 10% PhD/Doctorate). The majority of respondents (70%) indicated that they are in some form of employment, with 18% indicating that they were retired, and 3% in each category of not working due to long-term sickness, caring responsibilities or being a full-time student. Finally, respondents represented counties across Ireland (Figure 1), with highest representation from Dublin (23%) and Cork (16%).

⁷ [15131_ME5239OceanLiteracyHeadlineReport_FINAL.pdf \(oceanconservationtrust.org\)](#)

⁸ [Ocean Literacy Survey Results 2022 - Ocean Conservation Trust](#)

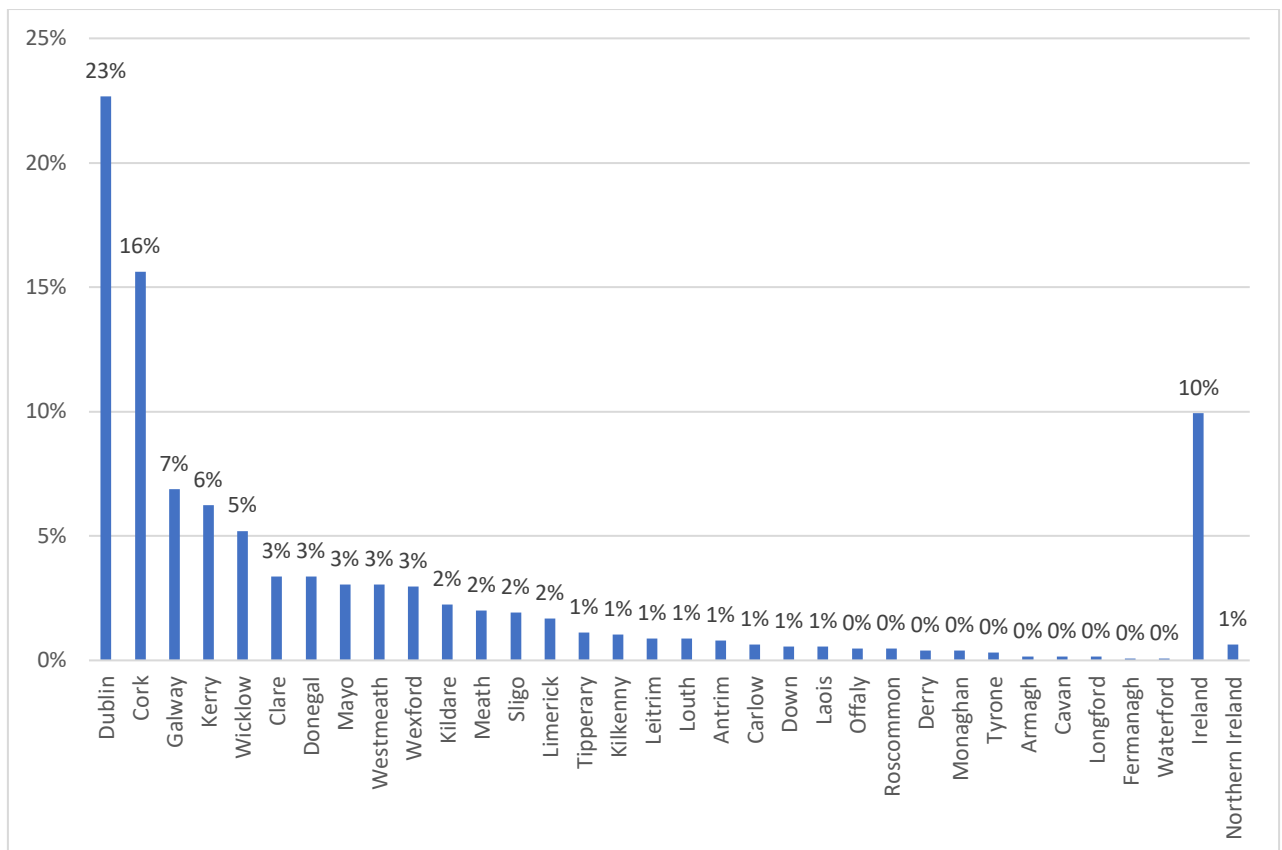


Figure 1: Geographical spread of respondents

First thoughts of the ocean

As an opening question, respondents were asked what the first word that they think of when they think of the ocean was. Out of the total sample, 1260 individual responses were submitted illustrating a diverse and broad suite of relationships between Irish people and the sea and coast around them.

A large proportion of responses related to feelings that the marine environment is under threat and in need of protection, with statements including: *'In desperate need of protection and safeguarding'*, *'The ocean is damaged and threatened by human activity'*, *'A gift to be preserved'* and *'the need to protect it'* – with some including an emotional frame to their concern for the sea e.g. *'I love the sea and fear for the damage to its environment'*. Issues relating to pollution and overexploitation of the marine environment were also commonly mentioned, with particular focus on plastic pollution, overfishing, and a general loss of species and reduction in biodiversity.

In addition to concerns for the marine environment and statements which highlighted an awareness of issues facing Ireland's coast and seas, respondents regularly commented on the beauty and tranquillity of the marine environment describing the sea as *'magical'*, *'the most special of places'* and *'Incredible, wondrous and existentially important'* and others describing it as *'a sanctuary'*, *'calming'* and *'endangered, yet beautiful and calming'*. Others referred to the marine environment as *'home'*, *'life giving'*, *'essential for a healthy planet'* and *'revitalising'*. Emotional connection and response to the coast and sea, and the issues facing them, was also evident through these responses, with statements ranging from *'sad'*, and *'fear'* to *'lucky to live near the sea'*, *'Connection to the vast and wild, beauty, power and healing'*, and *'therapy'*.

Other responses included references to the scale and power of the sea (*'vastness of the ocean'*), and a range of different seascapes and marine and coastal places (e.g., *beach, coast, estuary*), while others mentioned different maritime industries (e.g. *fishing*). A small number of respondents also referred to the ocean being *'out of sight, out of mind'* and suggested that the marine environment is perhaps undervalued and under-appreciated.

Dimensions:

- Attitudes
- Knowledge
- Awareness
- Access
- Emoceans

Principles of Ocean Literacy

Although questions remain regarding an agreed definition of Ocean Literacy (McKinley *et al.*, 2023), seven principles related to people's understanding of the impact on the ocean and the ocean's impact on them have underpinned Ocean Literacy initiatives since its inception.

Survey respondents were asked to indicate the extent to which they believed these principles were true (Figure 2 and Table 2). As shown, the majority believed the principles to be true to some extent, although this varied between the seven principles, from the 95% who indicated that 'the ocean supports a great diversity of life and ecosystems' as being true, to the almost 100% of respondents who indicated that they agreed that the statement 'the oceans and humans are inextricably linked' to be true. The statement with the least agreement was that of 'the earth has one big ocean with many features' with 11% indicating that they did not feel that this statement was true, 4% indicating that they did not know and only 39% indicating they believed it to be completely true, quite a lot lower than for the other ocean literacy principles.

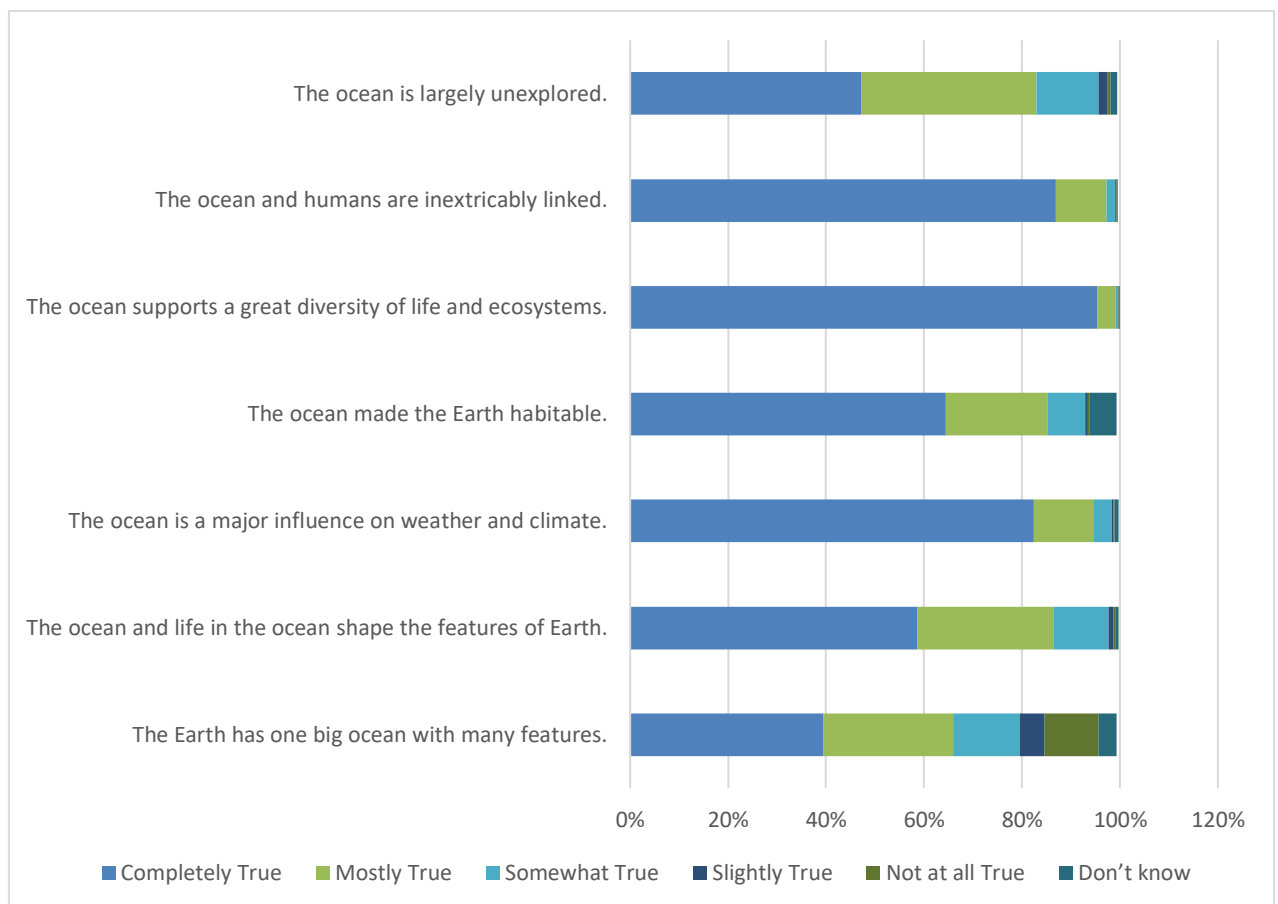


Figure 2: Extent to which respondents perceived the existing Ocean Literacy principles to be true.

Table 2: Summary of responses of the extent to which respondents perceived the existing Ocean Literacy principles to be true.

	The Earth has one big ocean with many features.	The ocean and life in the ocean shape the features of Earth.	The ocean is a major influence on weather and climate.	The ocean made the Earth habitable.	The ocean supports a great diversity of life and ecosystems.	The ocean and humans are inextricably linked.	The ocean is largely unexplored.
Completely True	39%	59%	82%	64%	95%	87%	47%
Mostly True	26%	28%	12%	21%	4%	10%	36%
Somewhat True	14%	11%	4%	8%	0%	2%	13%
Slightly True	5%	1%	0%	0%	0%	0%	2%
Not at all True	11%	1%	0%	0%	0%	0%	1%
Don't know	4%	1%	1%	6%	0%	0%	1%

Dimensions:

- Attitudes
- Knowledge
- Awareness

Emotional responses to the marine environment (Emoceans)

Awe and Wonder (60%) was the most commonly reported feeling when asked to think about the marine environment, followed by concern, indicated by 47% of respondents (Figure 3).

Calm/relaxed (27%) and Happiness (20%) were next most commonly selected. No respondents selected surprise or boredom; as a result, these have not been reported in Figure 2 below.

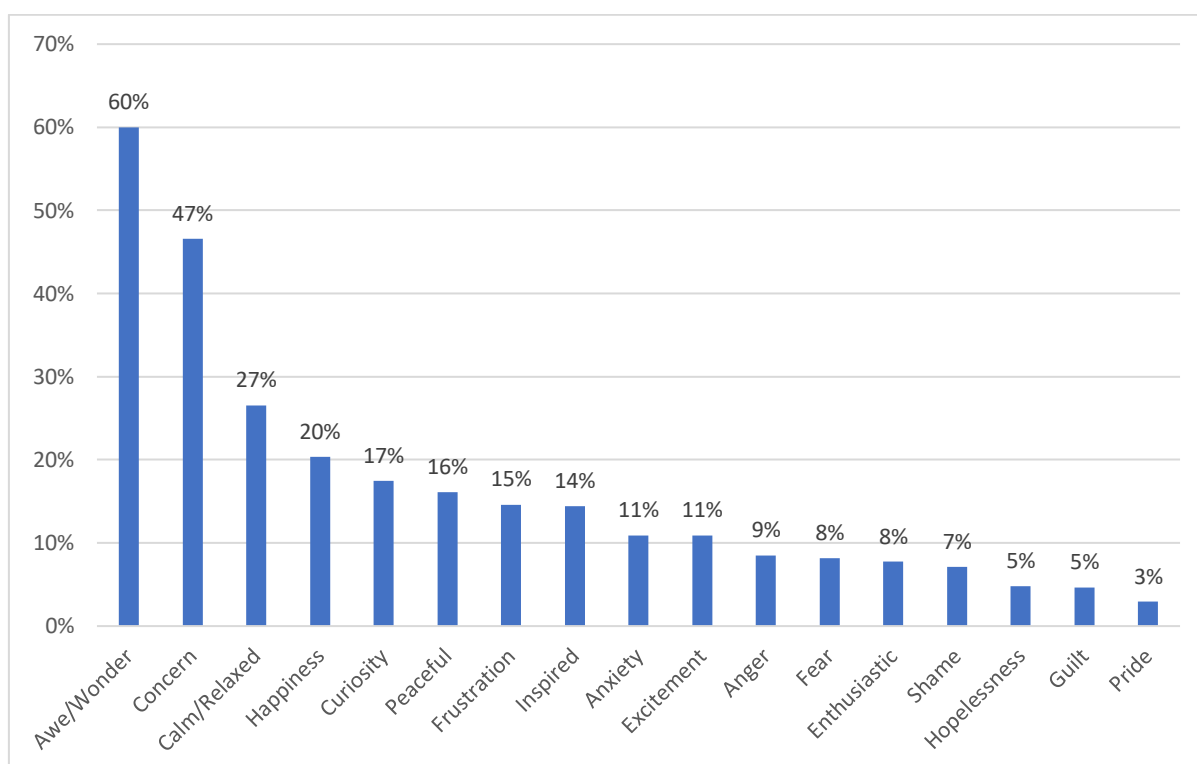


Figure 3: Emotional responses when asked to think about the marine environment.

Respondents were able to submit additional comments and suggest other emotional reactions in response to this question, with 45 responses collected in this way. Where possible these were categorised and coded into the existing list; however, some of the other emotional responses submitted included sad, passionate, ignorant, feeling '*part of something*', empowered, '*worried about pollution*', and serenity. A number submitted words relating to 'beauty' – '*Ireland is beautiful, and our coastline adds to that*'. One respondent indicated here that they were '*torn between curiosity and shame. Curiosity at the wonders and shame at we the human race are doing to them*', while another said they felt '*impatient and tired of all of the excuses*'.

Dimensions:

- Emoceans
- Attitudes
- Knowledge
- Awareness

Knowledge of key ocean terms

Climate change (99%), biodiversity (98%), sustainable development (94%) and sustainable fishing (94%) were among the terms most commonly known and understood (i.e. respondents selected that they either knew and understood the term, or had heard of and had some understanding of the term) (Figure 4 and Table 3). Ocean health and Marine Protected Areas were also well known and understood with 98% and 92% of respondents respectively indicating at least some knowledge and understanding of the terms. Other terms that respondents indicated that they had at least heard of included ocean literacy (80%) and blue economy (70%).

However, 58% of people indicated that they had never heard of Hope Spots, while 45% said they had never heard of eutrophication and 41% indicated they had never heard of blue carbon. Other terms which were less well known included marine citizenship, which 38% said they had never heard of.

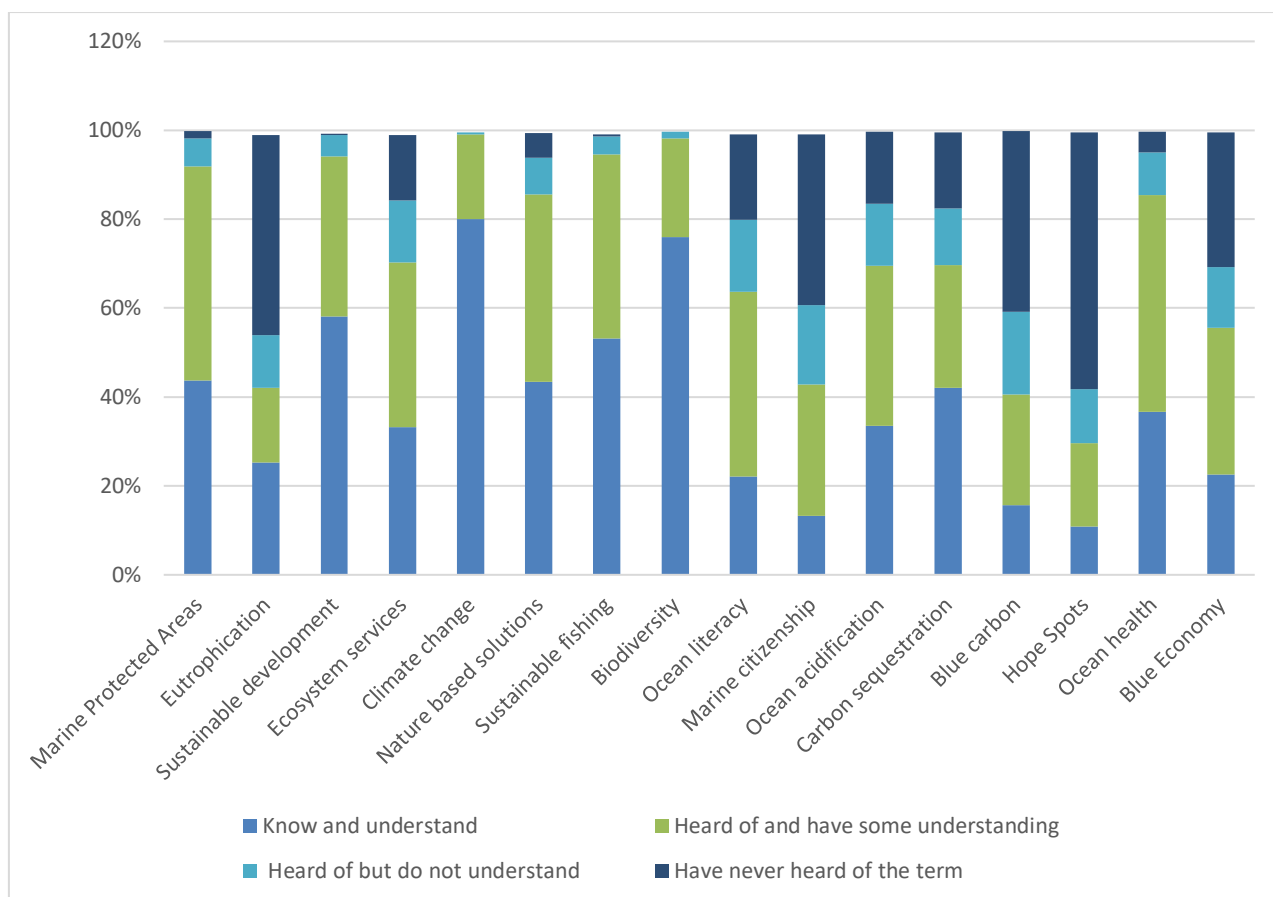


Figure 4: Knowledge and understanding of key marine terms.

Table 3: A summary of responses relating to respondent knowledge of key ocean and marine terms.

	Know and understand	Heard of and have some understanding	Heard of but do not understand	Have never heard of the term
Marine Protected Areas	44%	48%	6%	2%
Eutrophication	25%	17%	12%	45%
Sustainable development	58%	36%	5%	0%
Ecosystem services	33%	37%	14%	15%
Climate change	80%	19%	0%	0%
Nature based solutions	43%	42%	8%	5%
Sustainable fishing	53%	41%	4%	0%
Biodiversity	76%	22%	2%	0%
Ocean literacy	22%	42%	16%	19%
Marine citizenship	13%	29%	18%	38%
Ocean acidification	33%	36%	14%	16%
Carbon sequestration	42%	28%	13%	17%
Blue carbon	16%	25%	19%	41%
Hope Spots	11%	19%	12%	58%
Ocean health	37%	49%	10%	5%
Blue Economy	23%	33%	14%	30%

Dimensions:

- Knowledge
- Awareness

Perceptions of the health of and challenges facing Ireland's marine environment

Seventy percent of respondents rated their awareness of the challenges facing the global marine environment as either good or very good, with only 7% suggesting that their awareness of challenges to be poor or very poor (Figure 5). Twenty-two percent of people indicated a level of uncertainty, indicating their awareness to be neither good nor poor. However, when asked about their views on the health of the marine environment around Ireland, only 31% rated this as good or very good, with 40% rating it as either poor or very poor, and 24% suggesting it is neither good nor poor (Figure 6).

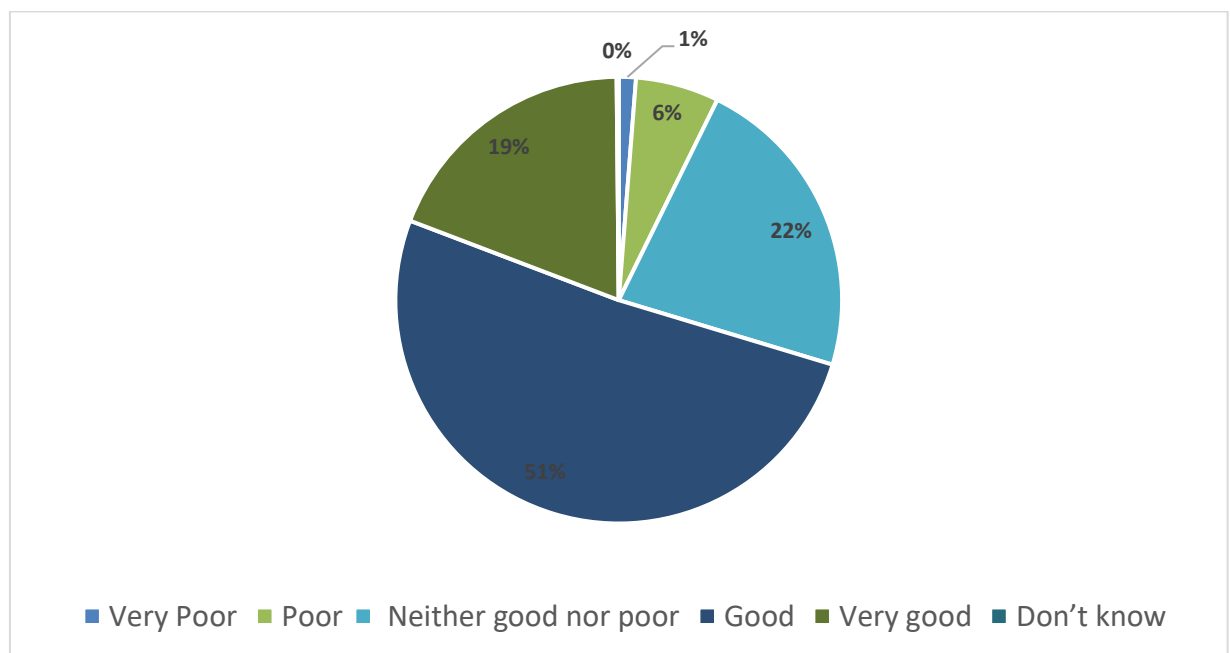


Figure 5: Awareness of challenges facing the marine environment.

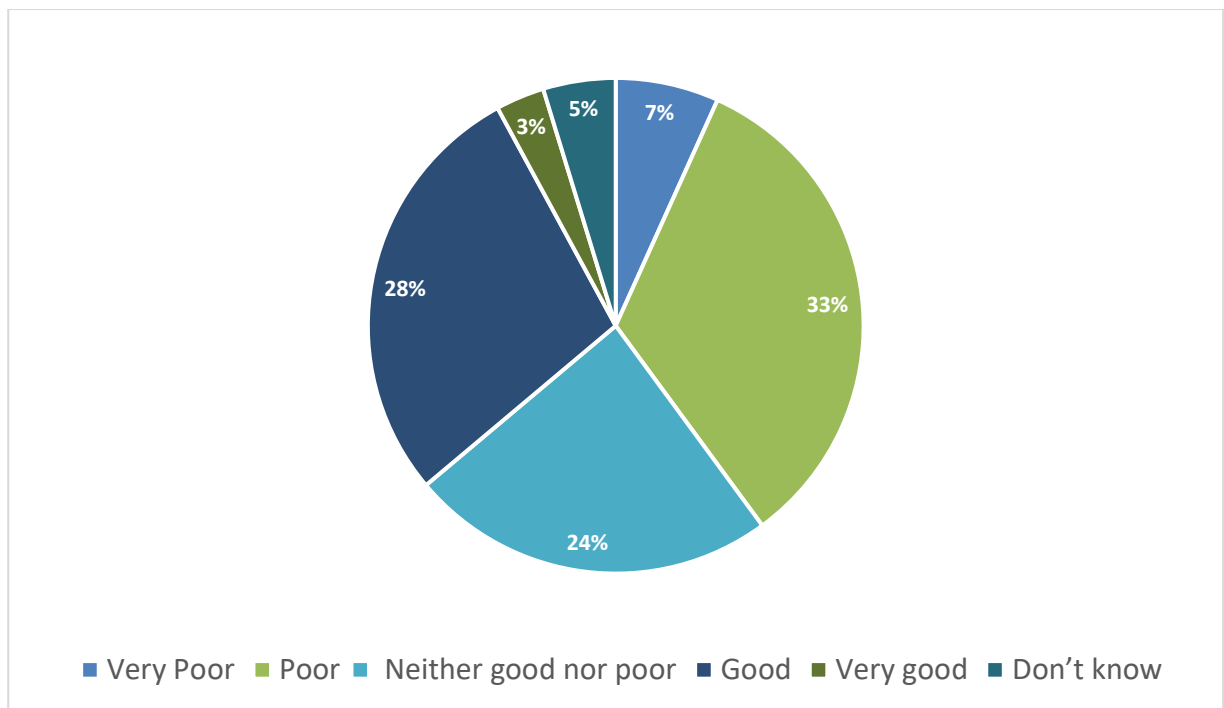


Figure 6: Perceptions of the health of the marine environment around Ireland.

Dimensions:

- Attitudes
- Knowledge
- Awareness

Respondents were asked to provide comments as to what a healthy marine environment looked like to them. 1215 individual responses were collected in response to this question. While responses were varied, the most common responses were relating to high levels of biodiversity ('thriving marine life'), sustainable use of marine resources with a 'harmonious balance where humans don't just take from and destroy but support the ecosystem', waters that are safe for communities to participate in recreational activities, such as swimming, and to fish from, as well as a sea with reduced waste and pollution. Some examples of the descriptions of a healthy marine environment in Ireland submitted by respondents are presented in Box 1 below.

'One that is not over exploited, overfished, used as a dumping ground. One that is enjoyed, appreciated by all and all benefit from it. One that is respected by society for the services it provides including emotional and spiritual connections. One that is free from litter and plastic, not overheating, has predictable patterns and species distributions, one that can regulate extreme weather and sequester carbon'.

'No more net fishing, pole and line only. Abundant happy fish. Clean water no more pumping pollution into the seas through our rivers.'

'Clean sea and beaches, no dumping at sea, no over fishing, cleaner more environmentally cleaner shipping'

'Fully functioning ecosystems, free to move and dynamically respond to external drivers'.

'Resilient, LOVED!!! and respected'.

'For me personally a healthy marine environment will not be visible, I don't swim or boat, however as an absolute minimum I want to see clean beaches and tidelines'

Box 1: Examples of answers from respondents when asked what a healthy marine environment looked like to them.

It should also be noted that one respondent highlighted that the marine environment had changed significantly over recent decades, stating that *'The marine environment that I experienced growing up in the 60's and 70's bears no comparison with what presents today'*. Issues of change are discussed further in a later section.

Dimensions:

- Attitudes
- Knowledge
- Awareness
- Emoceans

Benefits of the marine environment

When asked about the top three most important benefits of the marine environment in Ireland (Figure 7), the most commonly selected response was diverse habitats for marine plants and animals (68%), followed by oxygen production, carbon capture and storage (39%) and weather and climate control (37%). In contrast, few people selected history and heritage (3%), supporting the wider economy (6%), research and education (6%), while 7% indicated that there is a benefit to sense of identity and as a place for spiritual upliftment respectively. In addition, it is of note that nobody selected providing material for construction and infrastructure, and only five people selecting providing oil and gas as one of the top three benefits.

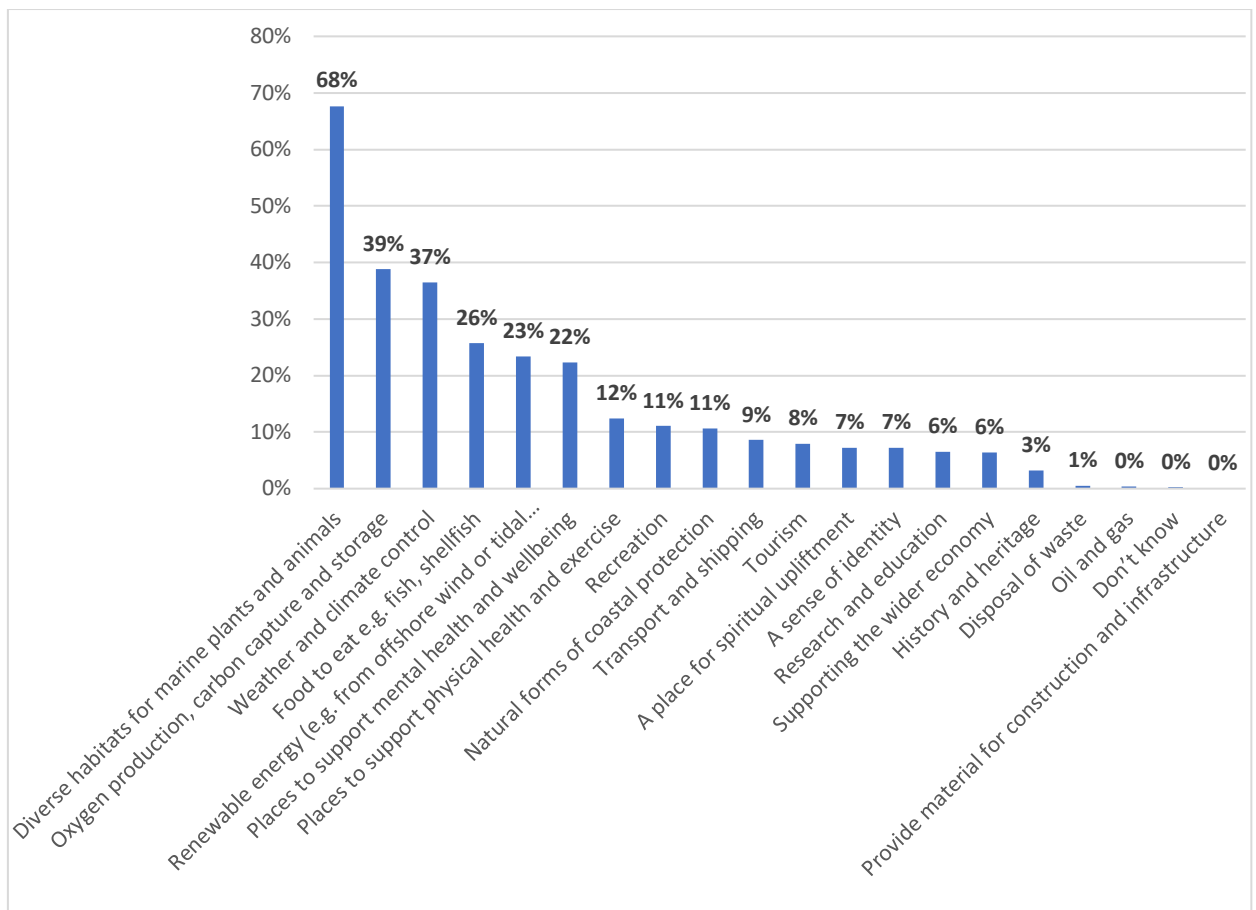


Figure 7: Views on the three most important benefits that society gains from the marine environment in Ireland.

Dimensions:

- Emotions
- Attitudes
- Knowledge
- Awareness

Threats to the marine environment

Respondents were asked to indicate what they thought posed the most threat to Ireland's marine environment (Figure 8). Lack of political will to protect/manage the ocean effectively was selected by 76% of people, with marine litter and plastic pollution (72%) selected next most frequently, whilst overfishing (68%), climate change (59%) and destruction of habitats at the coast or in the sea (59%) were also ranked highly. It should be noted that 50% of respondents indicated that a lack of public understanding about the ocean was a significant threat to Ireland's marine environment.

Sea level rise (26%), coastal erosion (23%), changes in species distribution (22%) and construction in the seas or ocean (19%) were selected less frequently.

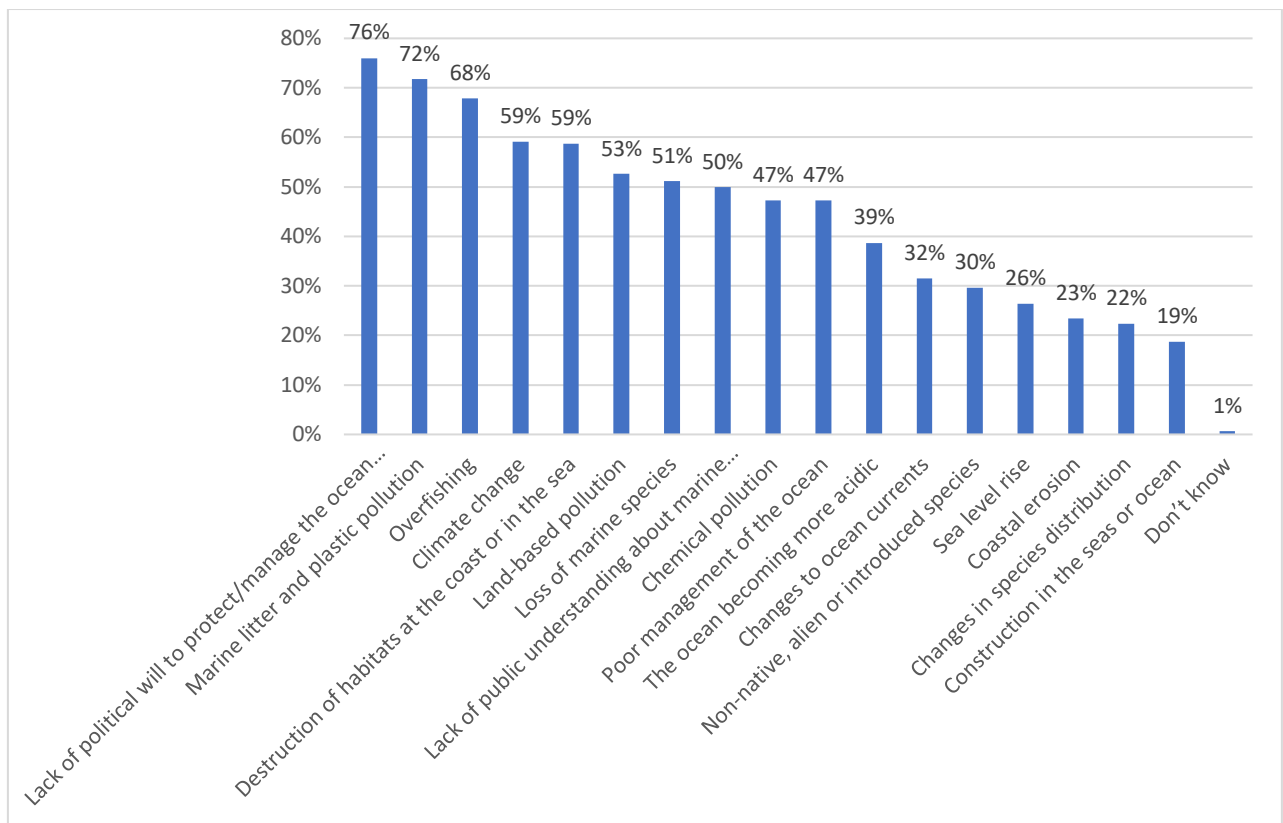


Figure 8: Threats to the marine environment in Ireland

When asked what has changed in Irish waters over the last 10 years, 1008 respondents provided comments. These ranged from concerns about overall reduction in the marine environment, with a number of respondents citing deterioration in biodiversity and overall loss of species and habitats, with one commenting *'[there has been a] noticeable decline in seabirds, and massive decline in sea shells on the shores, mussels, limpets, periwinkles, clams etc'*, as well as the introduction of invasive non-native species.

Respondents also commented on an increase in overall pollution, including plastic pollution, increased sewage and agricultural run off as well as other impacts from coastal development, impacts of climate change, including coastal erosion and increased flooding. Other changes mentioned included reduction in overall fish stocks, commonly cited as being a result of overfishing; a general increase in the pressure on marine and coastal space with the emergence of new maritime industries (e.g. renewable energy); a loss of Ireland's small-scale fishing in many of its coastal communities, as well as issues relating to increased eutrophication, ocean acidification, and more.

On a more positive note, there was also a recognition that the relationship between people and the marine environment has changed over time, with one respondent commenting that *'People are using the sea differently since covid, there is more of an emotional attachment'*. This was further commented on by a number of respondents who suggested that the previous 10 years had seen an increase in public awareness, concern and interest in issues relating to the marine environment, although some questioned whether enough was being done to improve public understanding about the challenges facing Ireland's coast and sea. It was also noted by one respondent that while the increased awareness could be seen as a positive, it was not enough to reverse the damage already caused – *'Awareness and beach cleanups have also increased but these alone do not compensate for all we've lost'*.

Some respondents also made references to changes in management and policy, with a number mentioning efforts to design and designate MPAs in Ireland's waters. However, it should also be noted that several respondents felt that there had been a lack of government action and impetus

to address the wide range of challenges facing the marine environment, both in Ireland and further afield. One respondent captured this by stating that although there is ‘*more ocean literacy...[this is] still not enough, [there has been] more Ocean Research and diplomacy but still not near enough. [There have been] many promises and commitments with absolutely zero trust that the government will adhere to them*’.

Dimensions:

- Attitudes
- Knowledge
- Awareness

Responding to threats to the marine environment

When asked how important protecting the marine environment around Ireland was to them personally, 84% of respondents indicated that it was very important, while 15% of respondents selected ‘important’ (Figure 9).

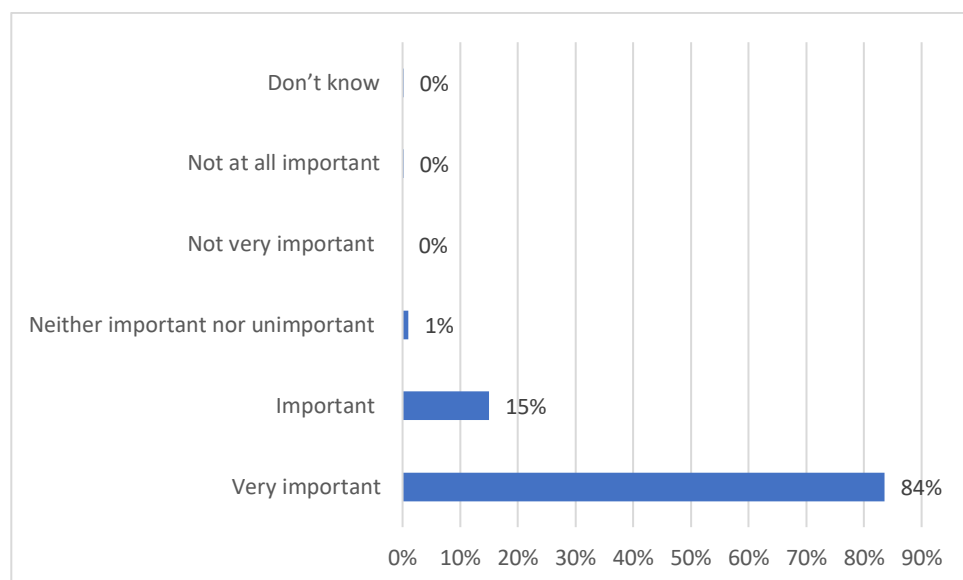


Figure 9: Importance of protecting the marine environment.

Dimensions:

- Attitudes
- Knowledge
- Awareness

Respondents were also asked their views on a range of activities addressing issues affecting the marine environment in Ireland, including their perceptions and support for the designation of Marine Protected Areas (MPAs) (Figure 9). An overwhelming majority of respondents (98%) indicated support for the creation and designation of MPAs in Irish waters, with less than 1% indicating their opposition.

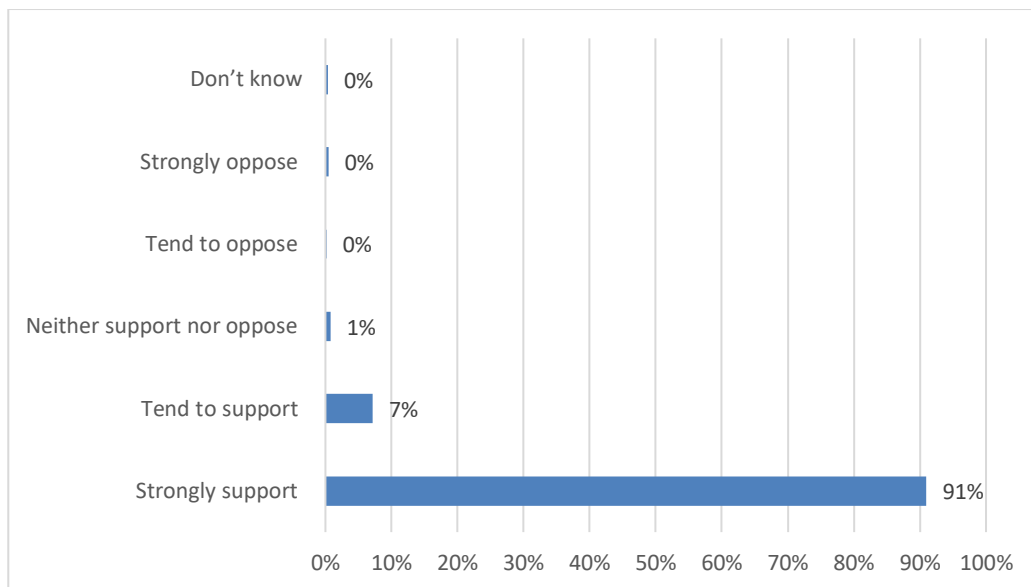


Figure 10: Support for the designation of MPAs around Ireland's coastal and marine environment

Dimensions:

- Attitudes
- Knowledge
- Awareness
- Behaviour

When questioned about the three most crucial actions and activities to tackle the issues and challenges confronting the marine environment in the vicinity of Ireland (as depicted in Figure 11), the highest priority was enhancing the safeguarding and preservation of the marine environment through the implementation of effective Marine Protected Areas (MPAs), which garnered 51% of the responses. This was closely followed by the strengthening of regulatory measures to curtail marine pollution stemming from various industries, including agriculture, which received 41% of the responses. Additionally, measures related to fisheries management to aid in the recovery of fish populations (38%) and promoting changes in human consumption and behaviour to reduce waste and pollution (33%) were also commonly chosen options. Only 19% selected supporting more people to engage with the ocean as one of the top three priorities for actions to address issues facing the marine environment.

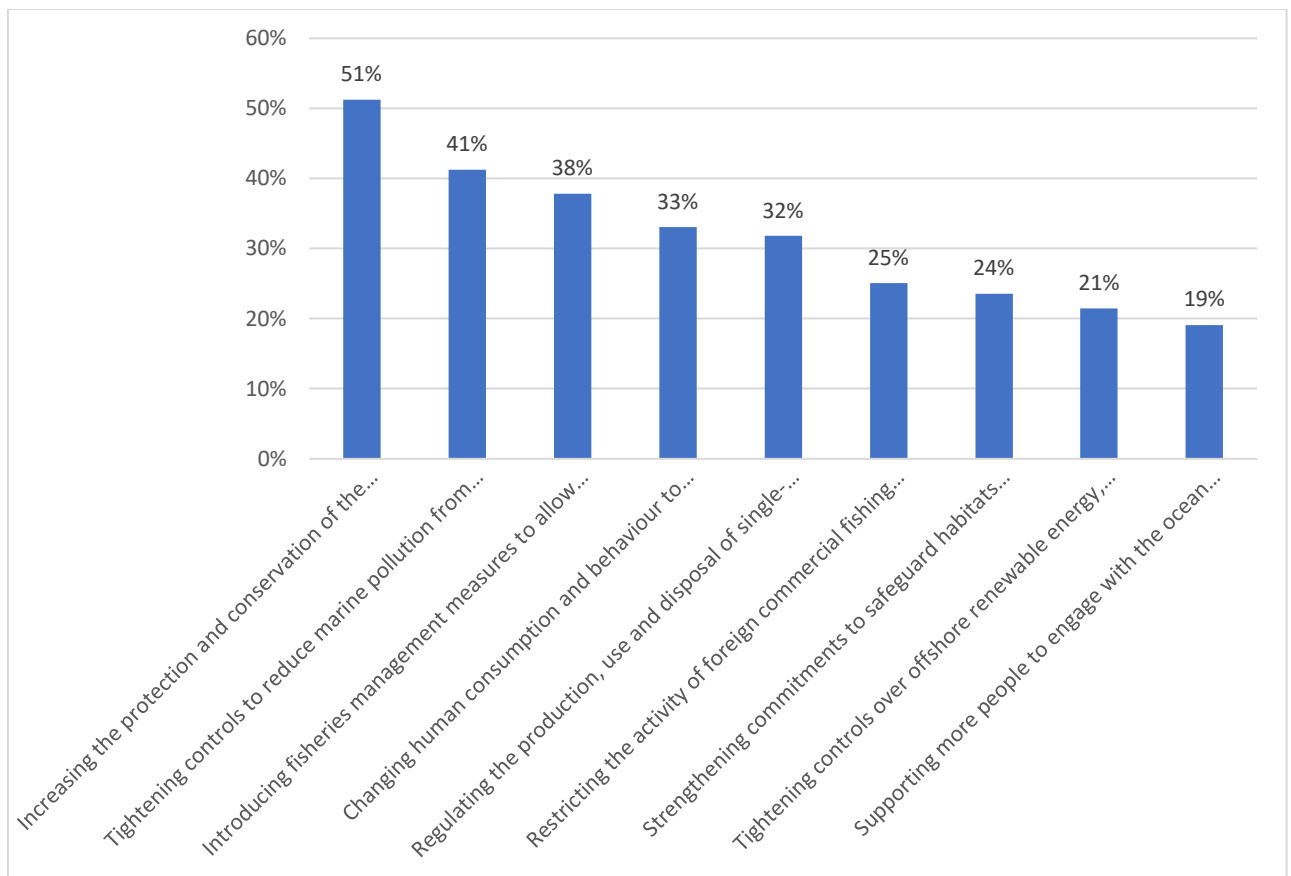


Figure 11: Views on the importance of the different marine management approaches.

Dimensions:

- Attitudes
- Knowledge
- Awareness

Further, when asked to indicate what actions they thought the Irish Government should take to protect Ireland's marine environment (Figure 12), a focus on MPAs was seen again, with 53% of respondents ranking more MPAs first. Better enforcement of environmental regulations was selected by 51%. The next most commonly selected actions were better management of pollution (28%), building capacity within government organisations to monitor and manage the marine environment (26%), followed by restoration of the marine environment (22%). Only 3% of respondents selected expand the blue economy and better use of marine resources.

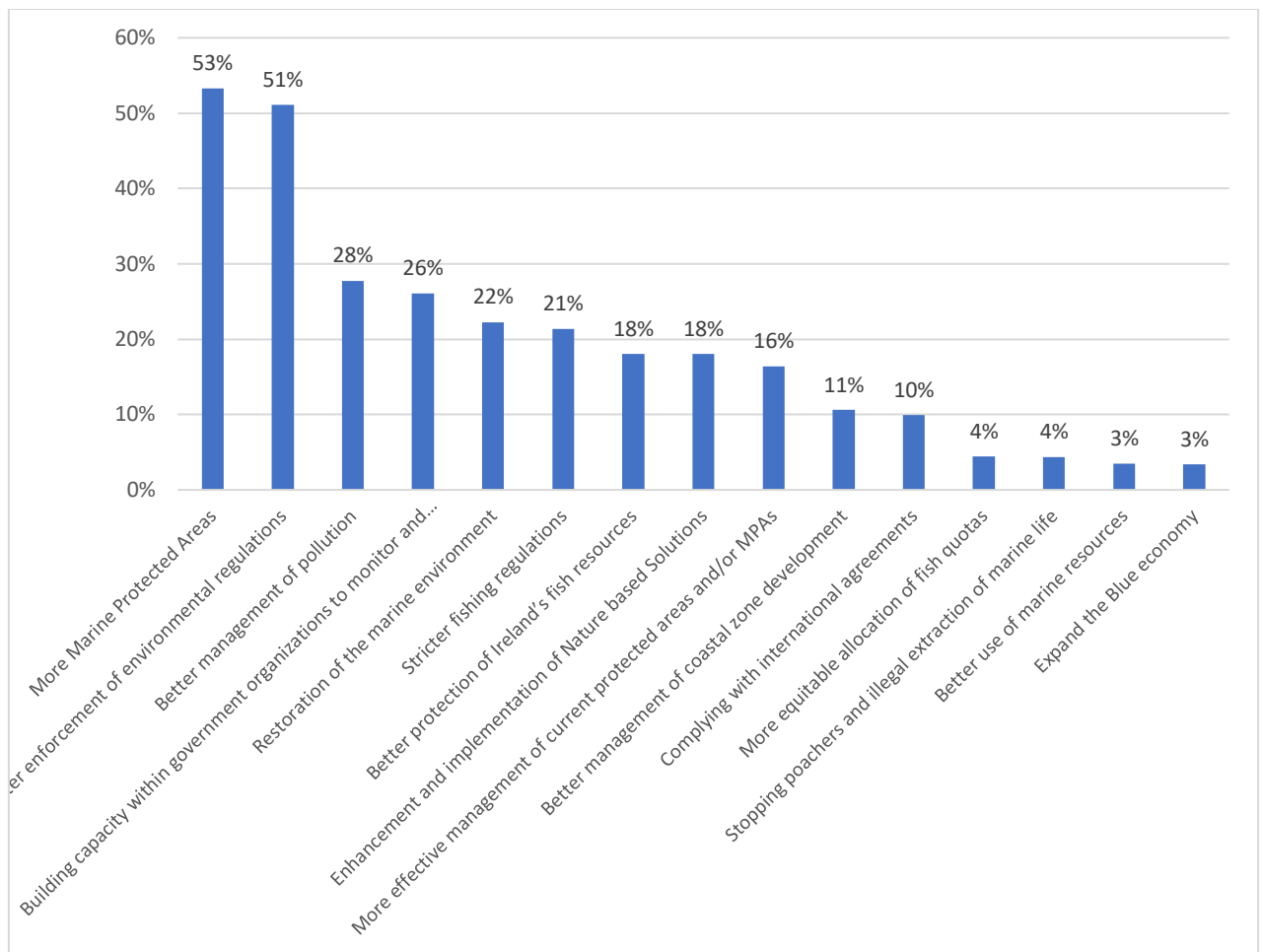


Figure 12: Views on the top three actions that the Irish Government should be taking to protect Ireland's marine environment.

Dimensions:

- Attitudes
- Knowledge
- Awareness

Attitudes to climate change

When asked their views about climate change, 74% of respondents indicated a view that the climate is changing due to human activity, while 24% agreed that the climate is changing due to a combination of human activity and other natural processes (Figure 13).

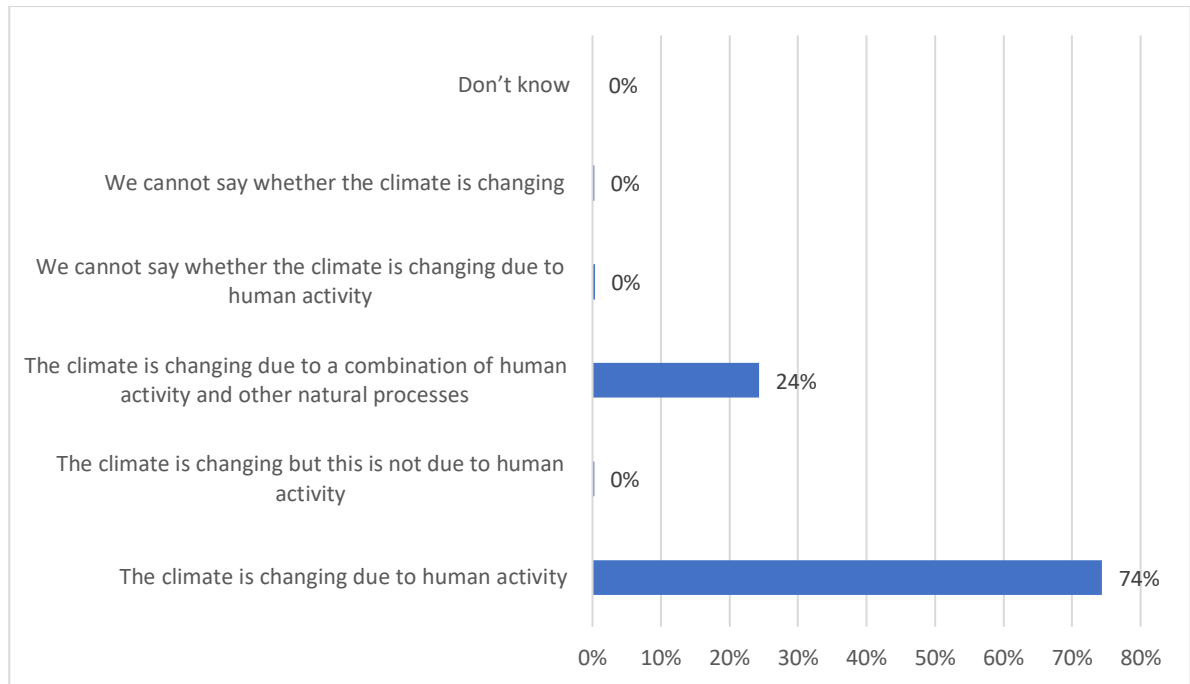


Figure 13: Respondents' attitudes towards climate change

Dimensions:

- Attitudes
- Knowledge
- Awareness
- Adaptive capacity

When asked further questions about their views on climate change and the need for climate action (Figure 14 and Table 4), 67% indicated that the statement 'climate change is not the greatest threat to our natural world' to be not at all true, while 90% indicated agreement that climate action is urgently needed. 96% of respondents indicated some level of agreement that the statement 'Nature can help to reduce climate change impacts', with 58% indicating that it is completely true.

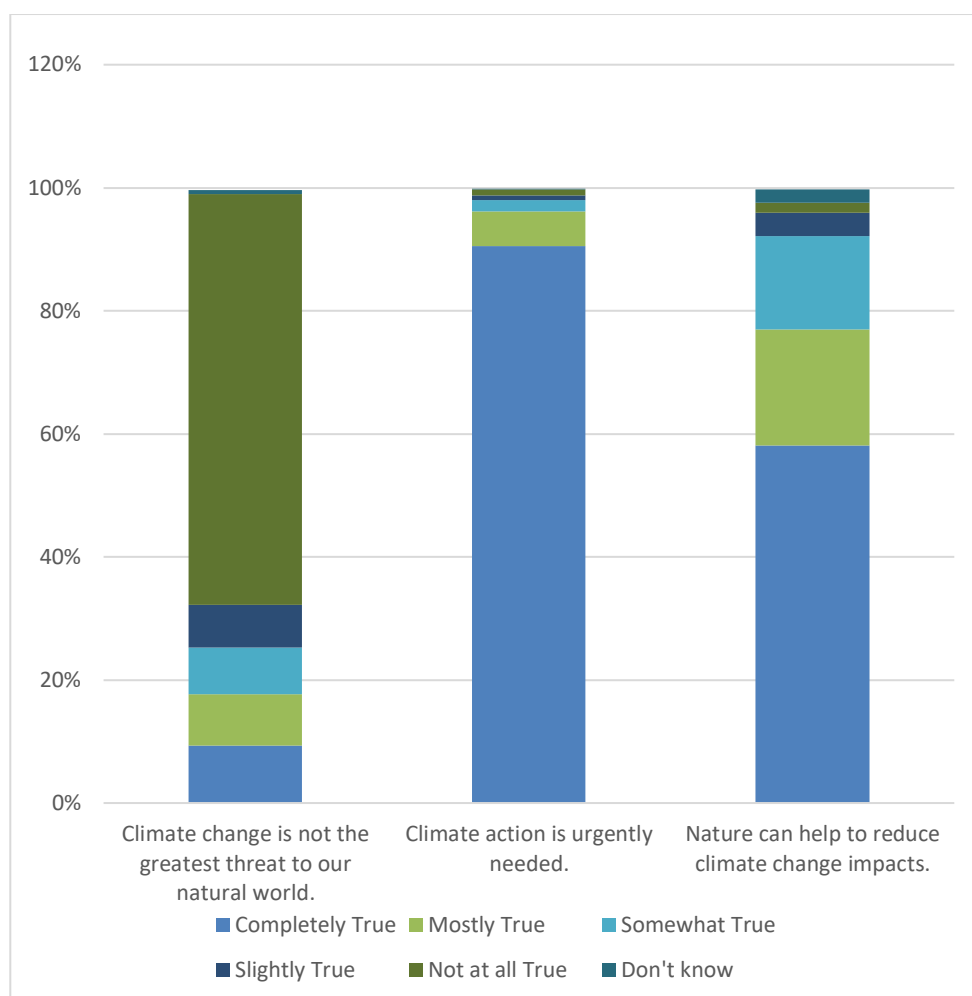


Figure 14: Views on climate change and climate action

Table 4: Summary of respondent views on climate change and climate action.

	Climate change is not the greatest threat to our natural world.	Climate action is urgently needed.	Nature can help to reduce climate change impacts.
Completely True	9%	90%	58%
Mostly True	8%	6%	19%
Somewhat True	8%	2%	15%
Slightly True	7%	1%	4%
Not at all True	67%	1%	2%
Don't know	1%	0%	2%

Dimensions:

- Attitudes
- Knowledge
- Awareness
- Adaptive capacity

Lifestyle impacts & changes.

Overall, 68% recognised that their lifestyle had some impact on the marine environment (Figure 15). More respondents thought that their lifestyle had a positive impact (37%) compared with those who thought it had a negative impact (31%). Slightly less than a fifth, 19%, of respondents thought their lifestyle had no impact while 12% indicated they didn't know whether or not their lifestyle had any impact on the marine environment.

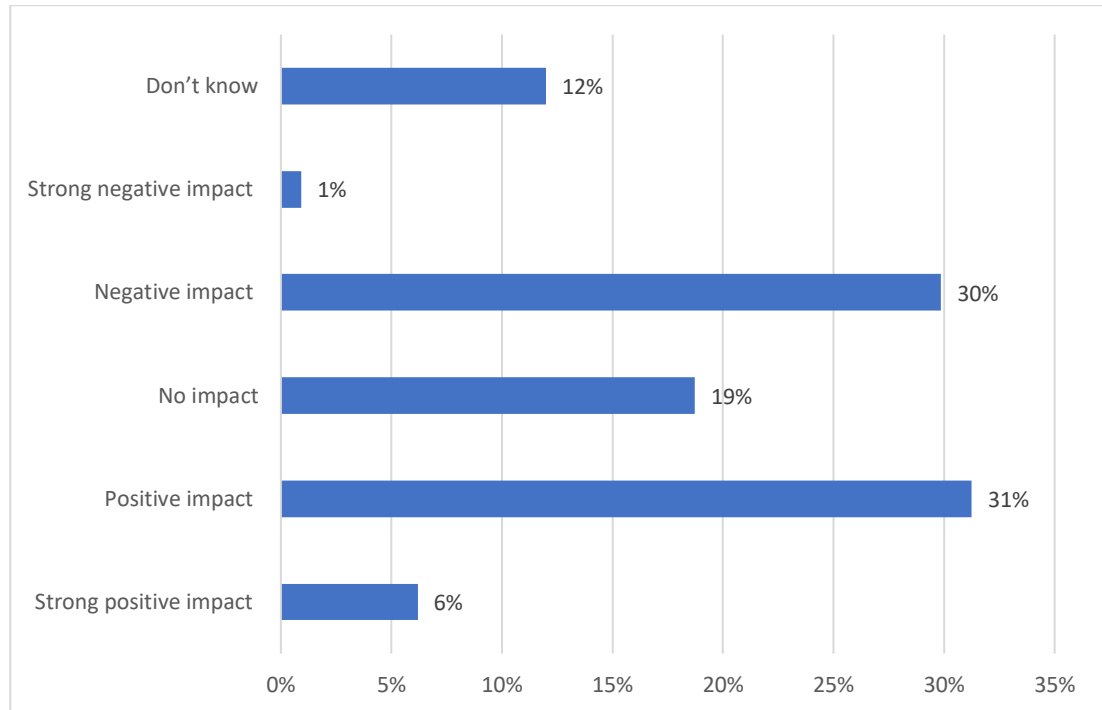


Figure 15: Perceived impact of lifestyle on the marine environment

Dimensions:

- Activism
- Behaviour
- Attitudes
- Knowledge
- Awareness

Individual actions relating to purchasing and packaging.

Respondents were asked to provide information about the kinds of individual behaviours, actions, and decisions that they had made in their every-day life over the previous 12 months (Figure 16). The majority (89%) indicated that they had reduced their use of single-use plastic, such as plastic bags and straws, while just over three-quarters (76%), had recycled more, while 67% had reduced use of disposable cutlery and plates. The least frequently selected options were buying second hand items (53%), and avoiding products known to harm the marine environment (56%).

Respondents were also invited to indicate other actions and activities that they may have undertaken in this question. Seventy-five responses were collected through the 'other' option, representing a wide range of actions and behaviours. This included, for example, reducing overall consumption, changing to a plant-based diet, decreasing consumption of fish and seafood, reduced energy consumption, using refill shops and collecting plastics and litter while on beach walks.

It should also be noted that some respondents used this opportunity to highlight the need for change beyond the individual level, with one stating '*individual actions are grand but surely this should be about systemic stuff?*'.

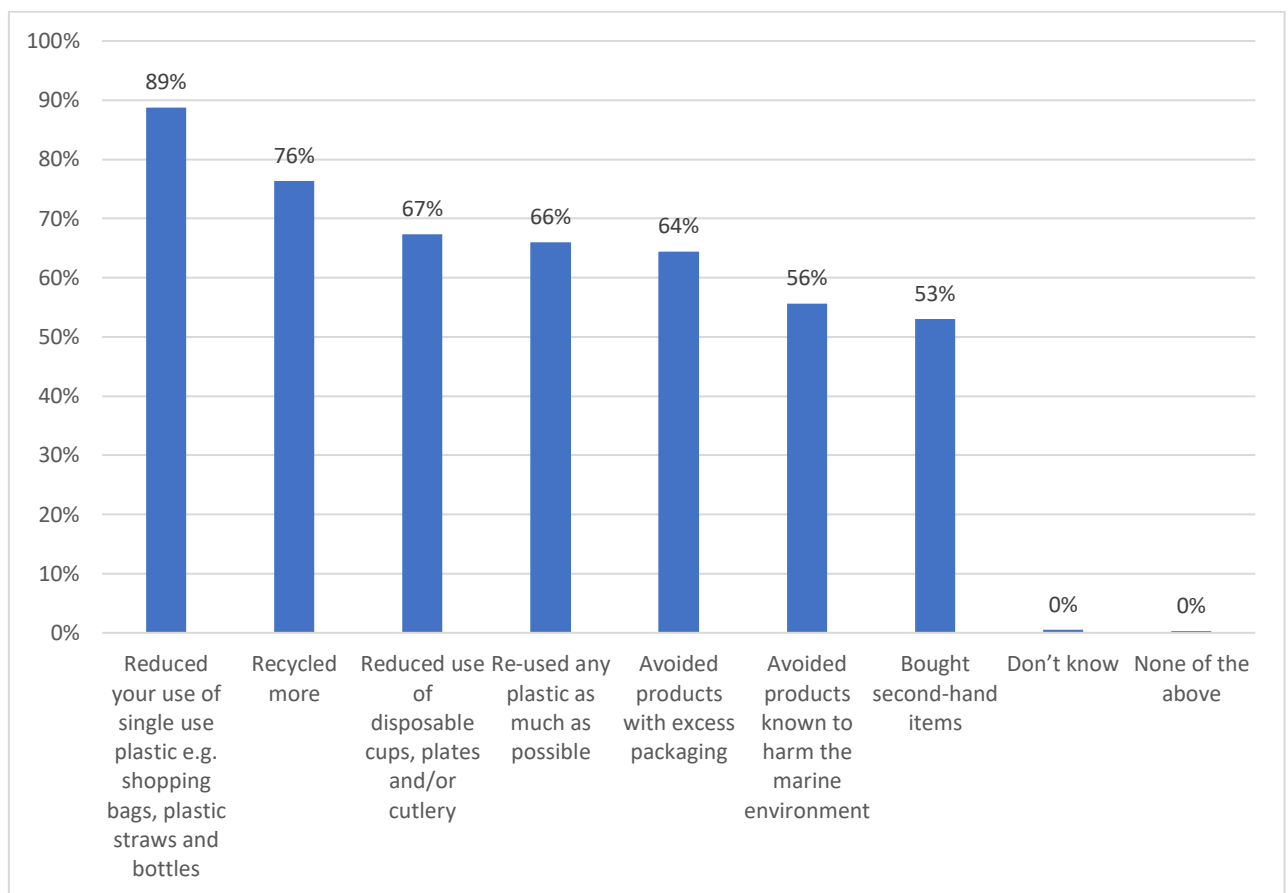


Figure 16: Actions taken in the last 12 months in relation to purchases and use of packaging.

Dimensions:

- Behaviour
- Communication
- Knowledge
- Awareness

Marine activism

The majority of people indicated that they had undertaken some form of action (Figure 17), with the most common action being signing petitions about issues affecting the marine environment (57%). Making changes to benefit the marine environment was selected by 48%, while 45% indicated that they had taken part in a beach clean or collected litter while visiting marine and coastal places.

Only 4% of respondents indicated they had attended protests or demonstrations in support of the marine environment, while 18% of people indicated they had spoken to an elected member or had donated money to support the marine environment.

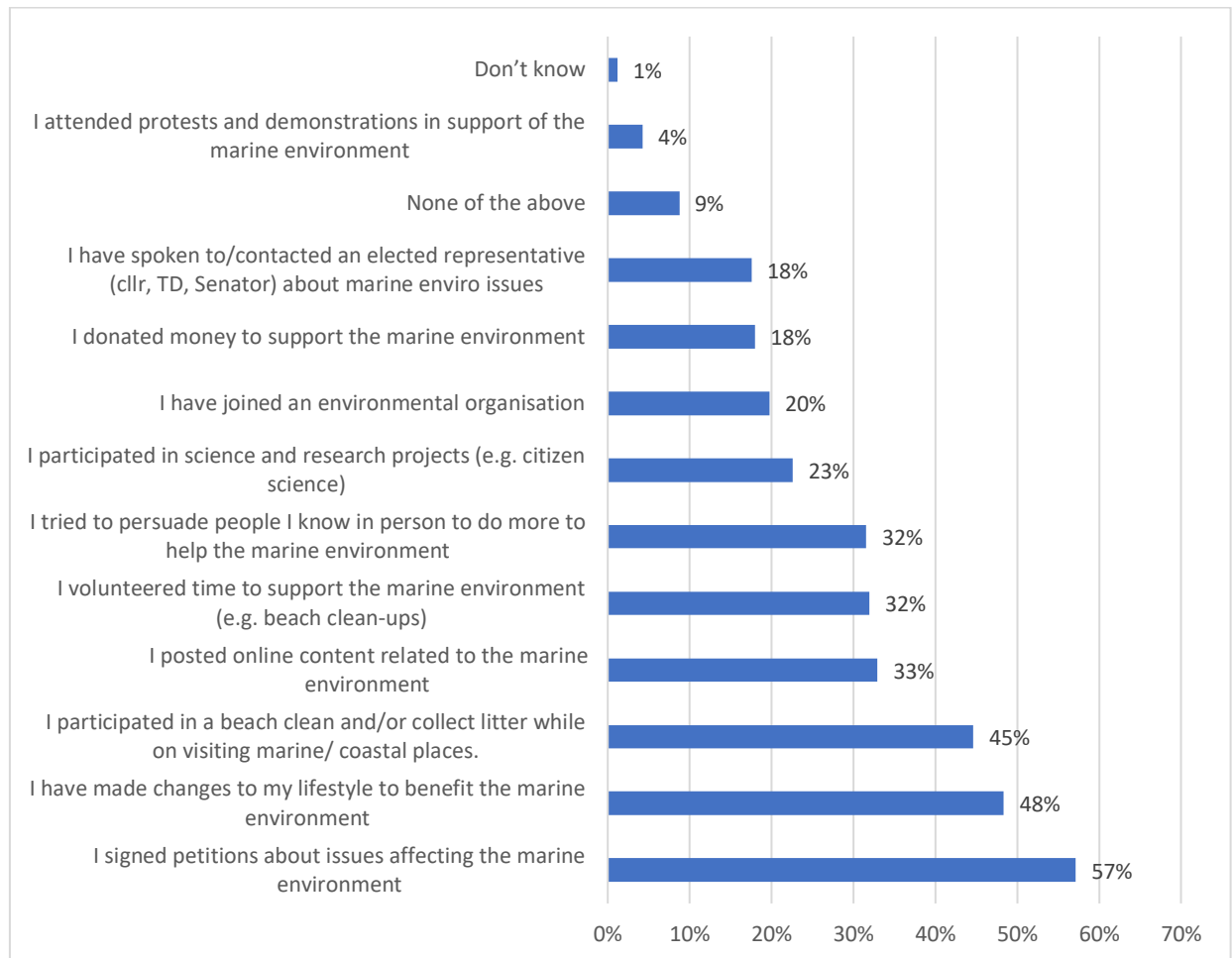


Figure 17: Actions people have taken to address issues facing the marine environment.

Dimensions:

- Activism
- Behaviour
- Attitudes

Communicating about the marine environment

The most common sources of knowledge/information about the marine environment used by respondents over the last 12 months were identified as films/nature and wildlife documentaries (48%), social media (44%), campaigns (39%), news (38%) and television and radio (25%). Getting information directly from scientists was only highlighted by 15% of people, with books/magazine and talks/seminars mentioned by 13% (Figure 18).

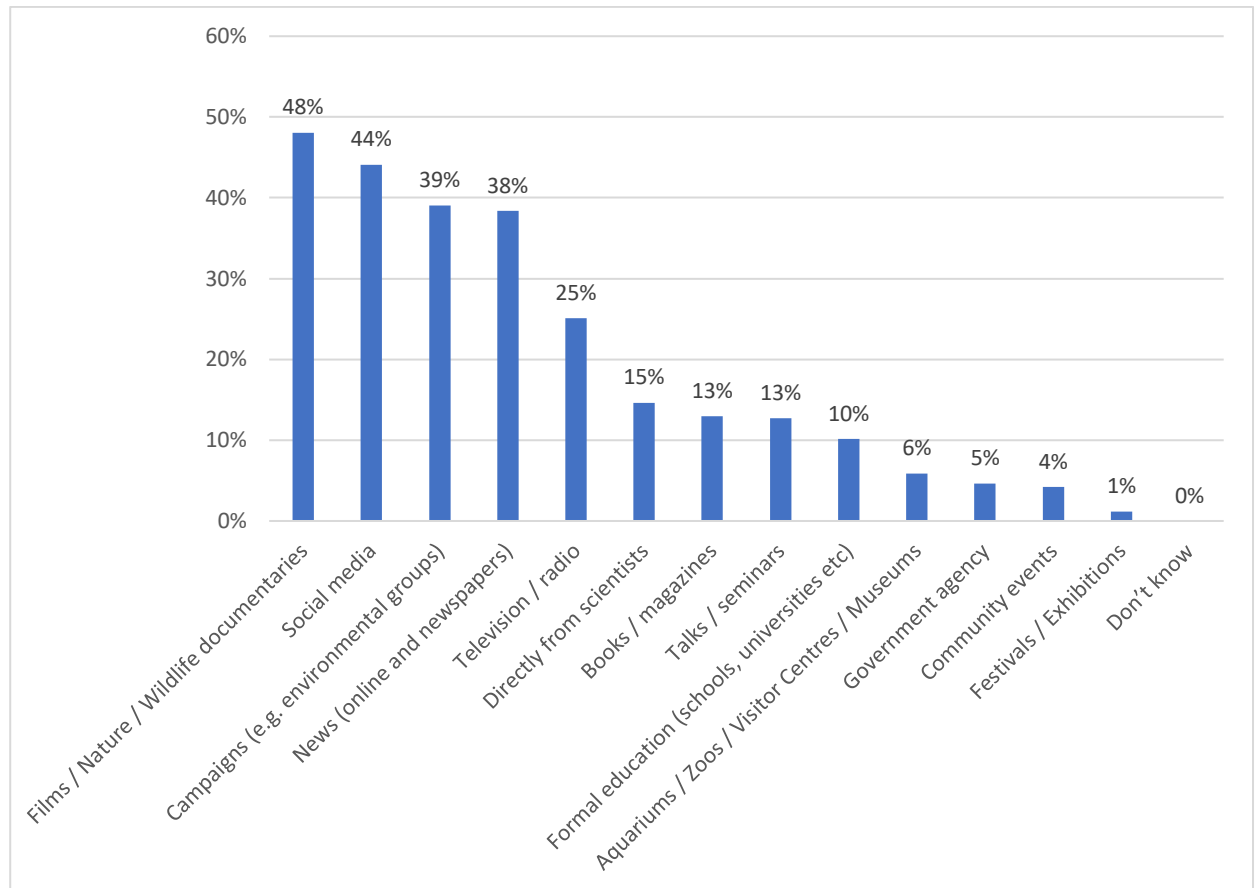


Figure 18: Sources of knowledge about the marine environment

Dimensions

- Communication
- Knowledge
- Awareness

When asked which sources of knowledge and information respondents trusted most (Figure 19), information coming directly from scientists was selected by 63% of people as being most trustworthy, despite being one of the less commonly identified sources of information. The next most trusted sources were information garnered from films/nature and wildlife documentaries (41%), campaigns (38%) and information obtained through formal education (35%). The least trusted sources of knowledge were information obtained from celebrities and/or influencers (less than 1%), festivals or exhibitions (1%), social media (3%) and friends or family (3%).

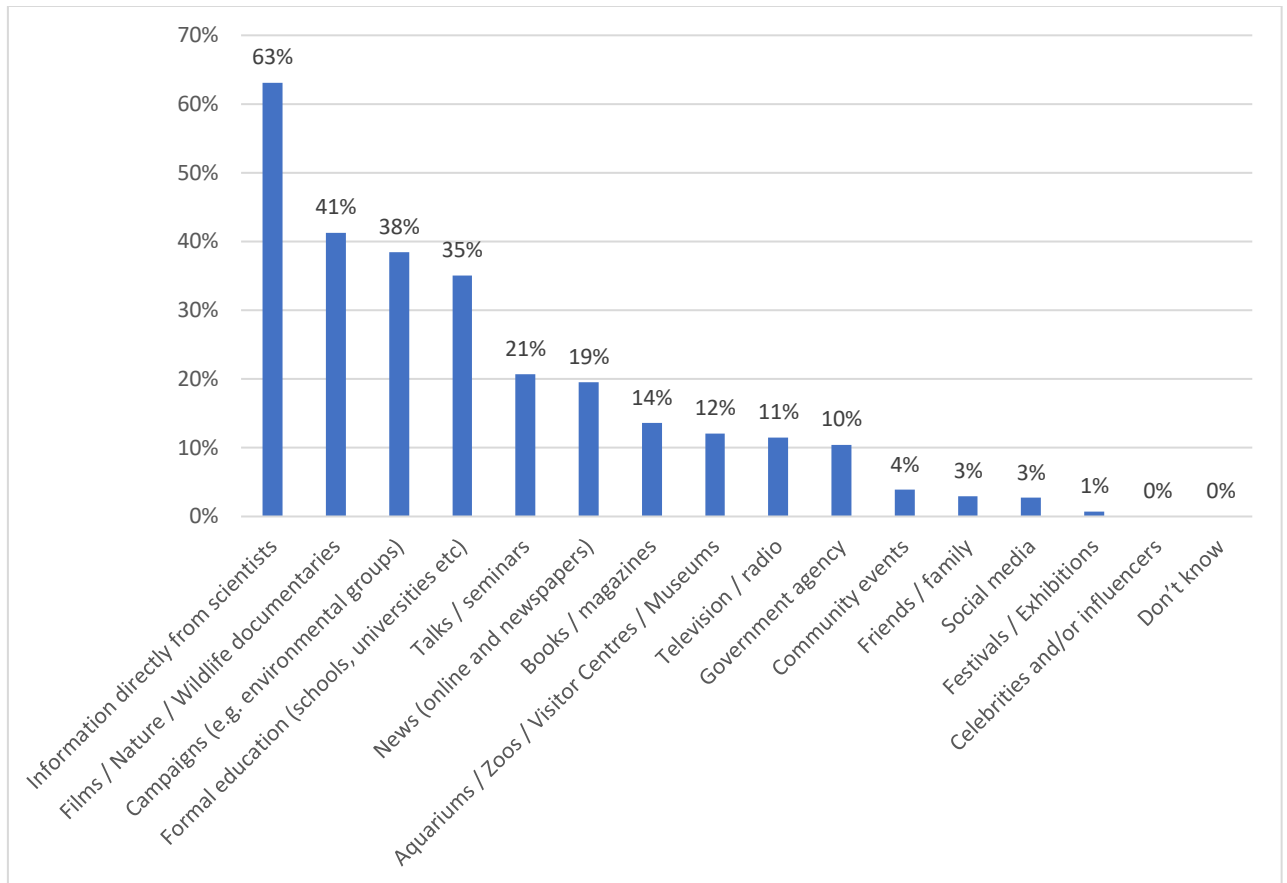


Figure 19: Sources of knowledge about the marine environment most trusted by respondents

Dimensions

- Communication
- Knowledge
- Awareness
- Trust

Visiting and engaging with the marine environment

When asked, an overwhelming majority of respondents indicated that they had visited the marine environment over the last 12 months (Figure 20). Only 3% indicated that they had not visited the marine environment in the previous year, and only 1% suggesting they had never visited the marine environment.

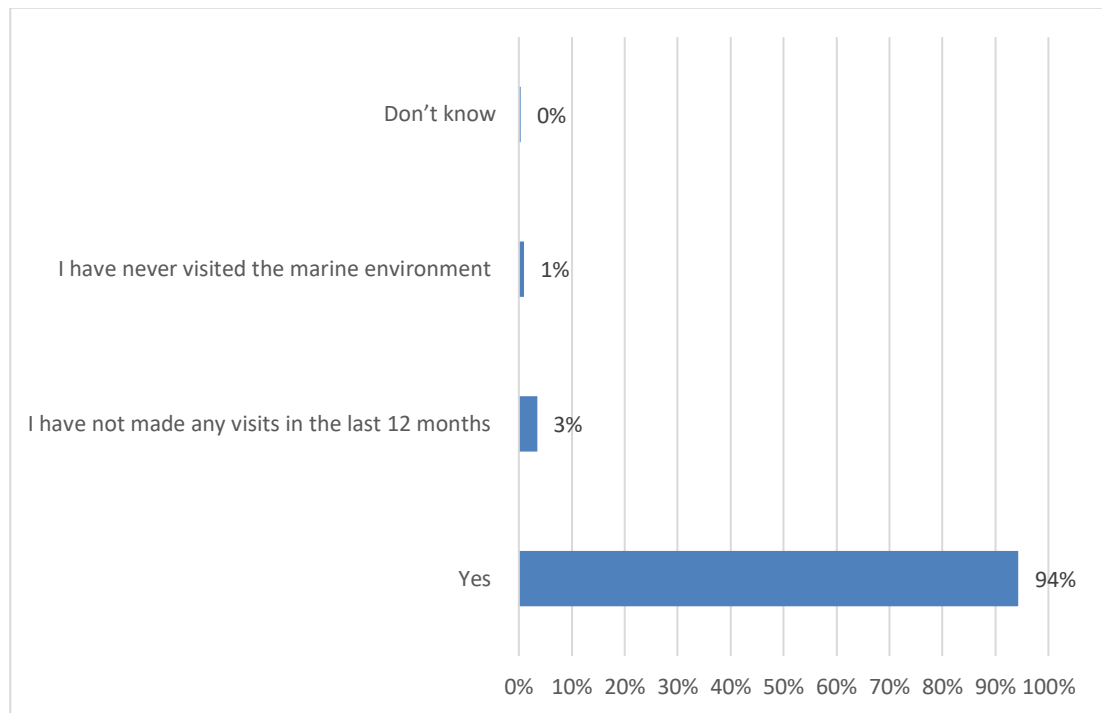


Figure 20: Visits to the marine environment over the last 12 months.

Dimensions:

- Access
- Behaviour

Marine destinations and frequency of visits

When asked what type of marine environment they had visited in the last 12 months for leisure purposes (Figure 21 and Table 2), the places most visited were coastal/seaside towns and sandy beaches (both 95%), followed by rocky shores with 92% of people visiting at least once in the previous year. 30% of respondents indicated that they had visited a Marine Protected Area in the previous 12 months, which is of note given that there is only one marine reserve in Ireland's maritime area, while estuaries (66%) and islands (53%) were also among the less frequently visited environments. Coastal and seaside towns were most commonly selected as having been visited every day (29%), while sandy beaches were selected most frequently as being visited several times a week. Overall, MPAs were selected most frequently as a marine space that people had never visited (13%).

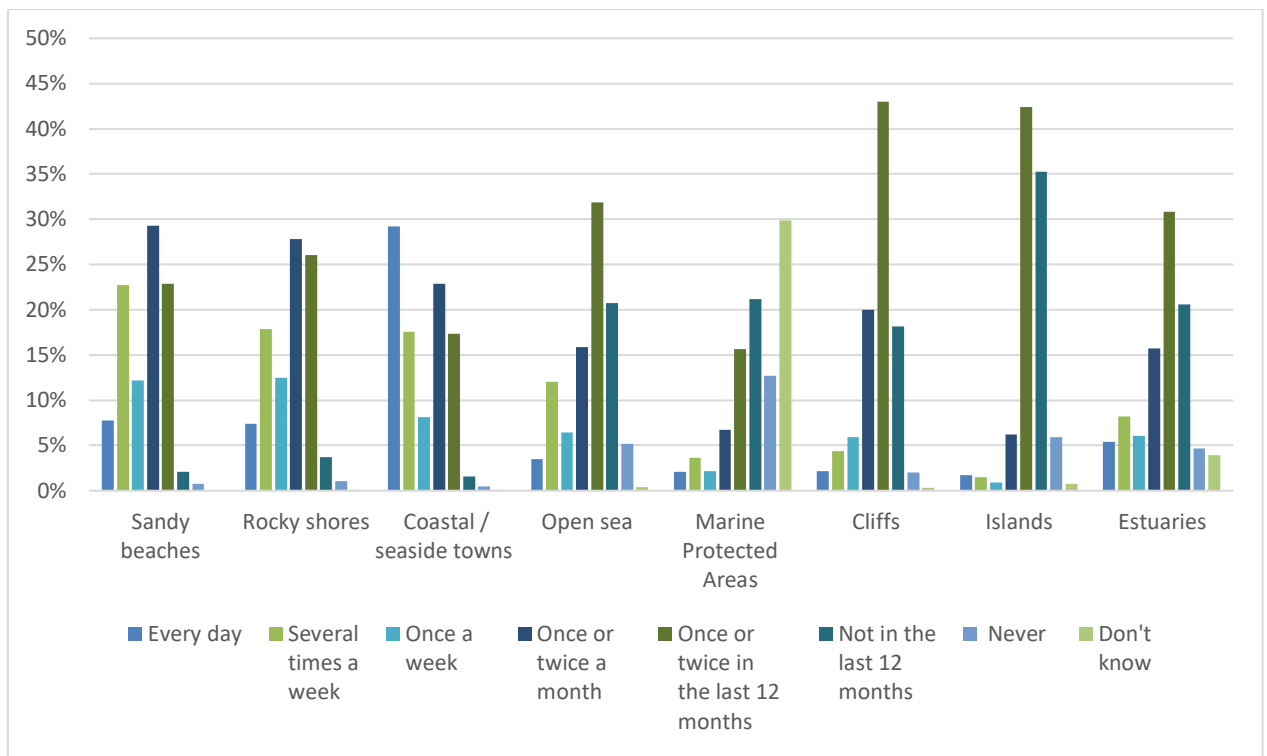


Figure 21: Frequency of visits to the marine environment by marine environment type.

Marine environment type	% at least once in the last 12 months
Coastal / seaside towns	95%
Sandy beaches	95%
Rocky shores	92%
Cliffs	76%
Open sea	70%
Estuaries	66%
Islands	53%
Marine Protected Areas	30%

Table 2: Visits to each marine environment at least once in the last 12 months.

Dimensions:

- Access
- Behaviour

What do people do during their visits to the marine environment?

Respondents indicated that they engaged in a wide range of activities when visiting Ireland's marine environment (Figure 22). Sea swimming (63%) and walking without a dog (52%) were the most commonly selected options, with sea or coastal bird and wildlife watching selected by 42% of respondents. Beach cleaning (36%), visiting a coastal heritage site (35%), photography or videography at the coast (33%) and hiking (30%) were also frequently selected.

The least commonly selected activities were jet skiing, with no respondents selecting this option, beach combing (1%), and wind or kite surfing (1%).

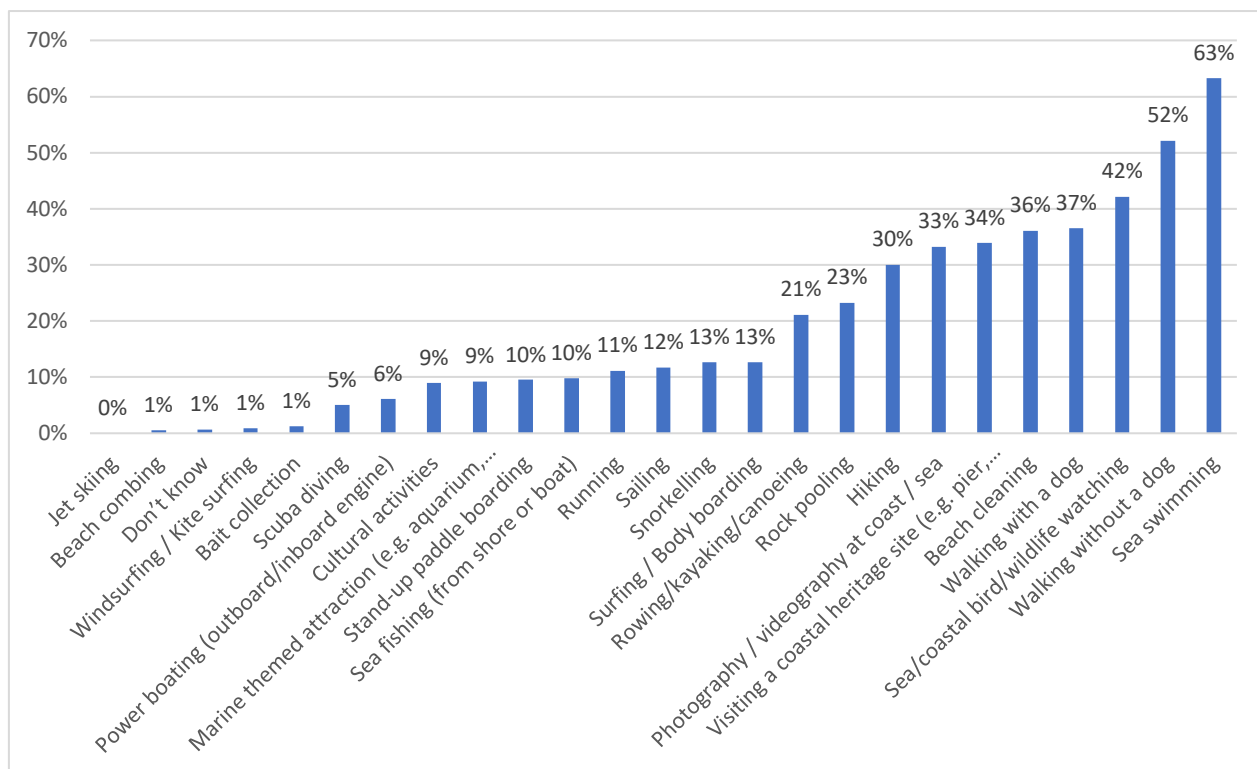


Figure 22: Activities undertaken in the marine environment over the last 12 months.

Dimensions:

- Access
- Activism
- Behaviour

Motivations for visiting the marine environment.

When asked about their general motivations for visiting marine environments (Figure 23), the most commonly reported reasons were that visiting the marine environment was found to be good for people's spirits (69%), that visiting left people feeling healthier (68%), cleared one's head (67%) and makes one feel more connected to nature (67%).

The least frequently selected options were feeling connected to one's past (31%), feeling like they can take care of the marine environment (35%) or building relationships and strengthen bonds with others during visits to the marine environment (35%).

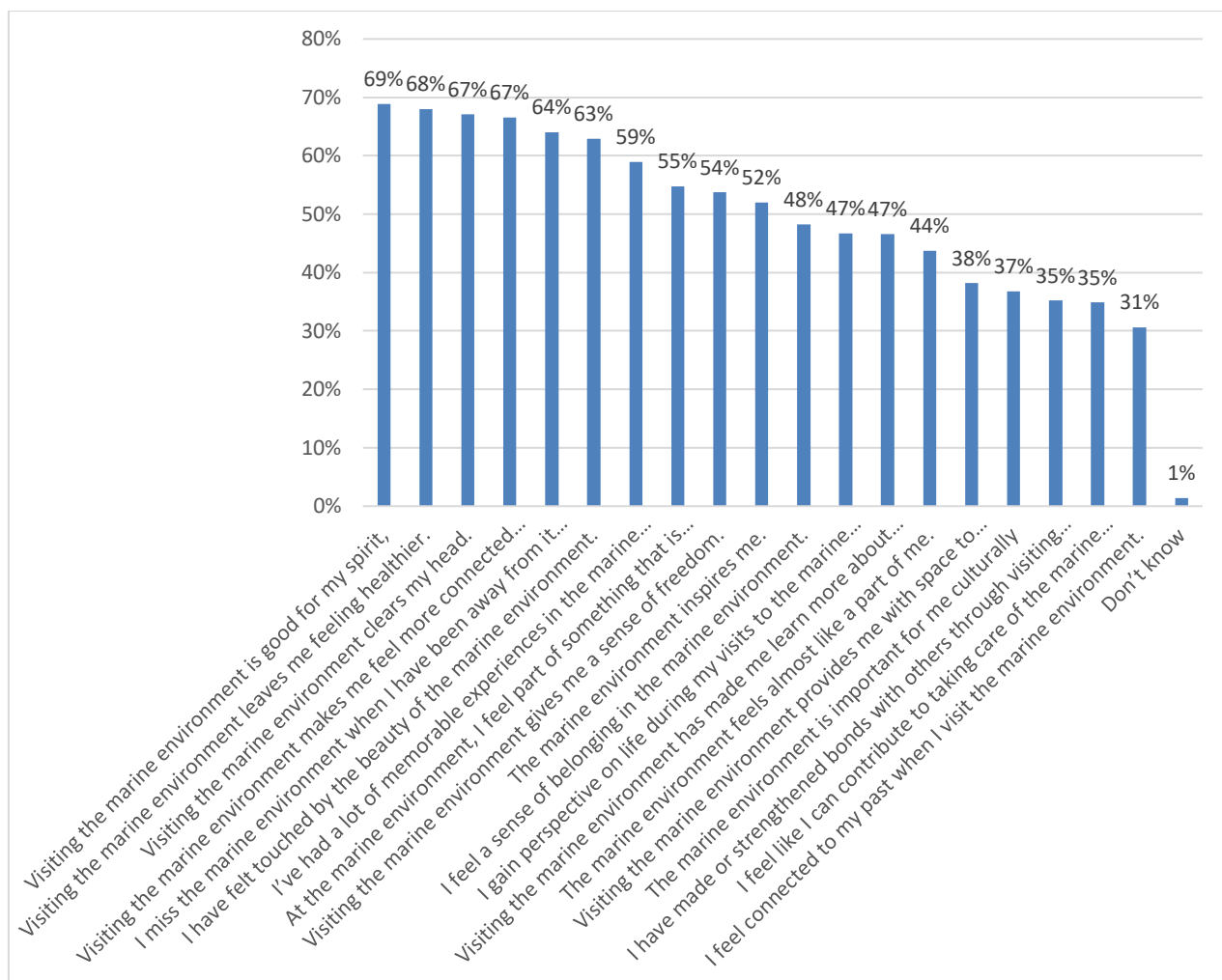


Figure 23: Motivations for visiting marine environments.

Dimensions:

- Access
- Emotions
- Activism
- Behaviour
- Communication
- Attitudes
- Knowledge
- Awareness

Barriers to visits

The main reason for not visiting a marine environment in the last year was bad weather, selected by 18% of respondents, while 17% indicated that it is as a result of it taking too long to get there/living too far away. Being busy at home (15%) or work (13%) were also relatively frequently selected. Others indicated that there was no particular reason for them not visiting (11%), while a range of other factors such as lack or cost of parking (4%), preferring to do other activities (4%), lack of facilities or interpretation (2%) were selected by a small percentage of respondents. Only 2% indicated that the marine environment being in a bad condition was a reason for them not visiting. It is also worth noting that, despite being presented in Figure 24 as 0%, a very small minority (4 people) selected that they weren't interested, while a further two people indicated a fear/worry about crime.

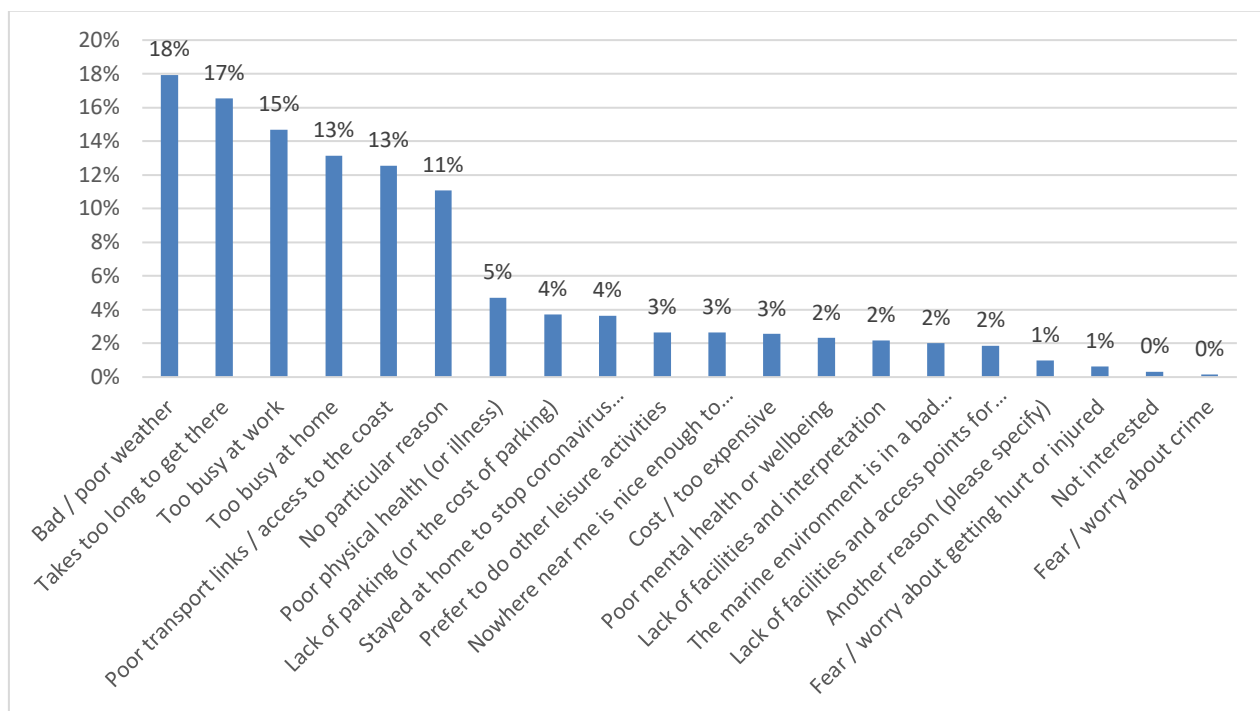


Figure 24: Reasons for not visiting the marine environment in the last 12 months.

Dimensions:

- Access
- Emotions
- Behaviour
- Attitudes

Summary Discussion

This survey aimed to better understand the current extent and levels of Ocean Literacy and connection across the Republic of Ireland. Where possible, comparisons have been drawn between the Irish Ocean Literacy study and others carried out in England and Wales.

Ireland's marine environment is highly diverse, providing a wide range of resources that Irish society benefits from – supporting habitats and wildlife, sources of food and energy, material for construction and infrastructure, space for recreation, inspiration and spiritual connection, trade and transport, as well as places to benefit physical and mental health and wellbeing (MEA, 2005).

The seas around Ireland face multiple challenges, including a need to adapt to a rapidly changing climate, habitat and biodiversity loss, and more. In a bid to address these challenges, The Irish government are failing to undertake a range of actions to protect the marine environment in response to obligations made under the EU Habitats Directive, Birds Directive and the Marine Strategy Framework Directives, as well as those set out by other international targets, such as the UN Sustainable Development Goals.

Understanding how people view, connect with and value the coasts and seas around them, and fostering ocean literacy, is increasingly recognised as being crucial to effective management and conservation of the ocean, coasts and seas (Jefferson *et al.*, 2021; McKinley *et al.*, 2020; Bennett, 2019).

Analysis of the data indicates a wide range of relationships between Irish communities and their coast and sea, with data suggesting respondents to be very ocean-aware and engaged. 99% of respondents suggested that protecting the marine environment was important to them, with the majority of people (98%) also indicating that they were in support of MPA designation in Irish waters.

This is higher than the findings in other studies – for example, Wales's Ocean Literacy survey found 83% to be in support of MPAs, while this was 84% in England's 2022 survey. This support for MPAs is echoed in other questions in this study, with the designation of more MPAs selected most frequently as one of the top three actions that the Irish Government should take to protect Ireland's marine environment, as well as being highlighted as the top most important activity to address marine issues (51%).

This is quite different to the studies carried out in the UK, where reducing the production, use and disposal of single-use plastics was selected as the most important action in both the England and Wales studies, with MPA designation coming much lower in the list (29% in both). This may reflect the fact that Ireland is at an earlier stage in the MPA designation process when compared to the UK, resulting in higher levels of public will to support the creation of more MPAs. When asked to select the most significant threat to Irish seas, it is interesting to note that the most commonly chosen option was the lack of political will for effective management of the marine environment, with the pressure of plastic pollution selected second. Again, this is different when compared to other studies, where plastic pollution and marine litter were selected as the most significant threat. However, it should be noted that a response option regarding political will was an addition to the Fair Seas Ocean Literacy survey.

In terms of emotional response, the most frequently selected emotion for Irish people was awe/wonder, which was selected by 60% of people, followed by concern (47%). This is quite different to the findings in both England and Wales's 2022 surveys, in which concern (45% and 48% respectively) was selected most frequently, followed by awe/wonder (39% and 41%) – this was then followed by curiosity in both the England and Wales studies. However, in Ireland, calm/relaxed was selected by almost a third of respondents (27%), followed by happiness (20%) and then curiosity.

Analysis suggested that there is high level of knowledge of a range of key marine terms, although as seen in other studies, these varied between terms. Unlike in the Welsh and English studies, ocean literacy was indicated as having been heard and understood by a significant number of Irish respondents, which again, indicates a highly ocean-aware and engaged study population. It is of note that one of the lesser-known terms was 'Hope Spots' – this question sought to understand awareness of the recently awarded 'Hope Spot' status of the Greater Skellig Coast off the South West of Ireland⁹. While awareness may appear to be relatively low given this recent award, it should be taken into consideration that the recent timing of the award, as well as noting that the terminology of the 'hope spot' is likely to be unfamiliar to Irish audiences and so a low level of awareness may be likely to be expected. Indeed, the fact that 42% of respondents have shown some level of awareness of the Hope Spot status in such a short span of time suggests that the campaigns and awareness-raising efforts linked to the award have not only gained traction within the immediate Greater Skellig Coast region but have also succeeded in reaching audiences throughout Ireland.

Finally, this study has gathered valuable insight into how Irish people engage with and connect with the coasts and seas around them. Sea swimming was most commonly selected as the activity people undertake when visiting the coast in Ireland (61%) but was only selected by 17-18% of people in England and Wales, while a wide range of other activities were also carried out by respondents.

Recommendations for future Ocean Literacy work in Ireland

While this study provides valuable insights into existing levels of ocean literacy in Ireland, there is more work to be done. A series of recommendations for future work are now discussed.

- The results provide a valuable baseline of current levels of ocean literacy across Ireland, acting as a benchmark from which ocean literacy and the relationships between the people of Ireland and the ocean and coast can be assessed going forward. As efforts to meet the goals set out by the UN Sustainable Development Goals, as well as those outlined in the UN Ocean Decade continue, future iterations of this study will enable the development of a more comprehensive understanding of societal values and perceptions and how they might change over the coming years. The marine and coastal environment is a dynamic and ever-changing space.
- Future iterations of the study may need to include additional questions to gain further insights into particular topics and priorities for Ireland. This could also support the development of further understanding of existing ocean literacy and related actions people are already taking – for example, habitat restoration, renewable energy generation or gather information about other actions/behaviours people may be taking relating to transport and energy choices, or seafood consumption.
- It is important that the results of this survey are shared across Ireland as the most up-to-date assessment of ocean literacy, including with policy-making stakeholders.
- The evidence and insight gathered through this study should be used to support ongoing decision-making and policy development for Ireland's marine environments. In addition, the data presented in the report present valuable insights into the diverse values held by Irish people towards and about the ocean – these insights should be used to develop tailored, evidence-led communication and convey key messages that can support efforts to deliver sustainable management of Ireland's maritime area.
- In terms of the questionnaire itself, and the associated data analysis, there are a number of additional areas of work which could be further developed. For example, given that there has been a similar study carried out in Northern Ireland¹⁰, it may be valuable to conduct some additional analysis to generate a whole island data set as well as identifying any similarities and differences between the communities of the Republic of

⁹ [The Greater Skellig Coast Hope Spot | FairSeas](#)

¹⁰ [NI Ocean Literacy Survey | Department of Agriculture, Environment and Rural Affairs \(daera-ni.gov.uk\)](#)

Ireland and Northern Ireland. Further, it should be noted that the questionnaire does not cover each of the ten dimensions of ocean literacy in detail, and the quantitative nature of the data collection means that the survey provides only a snapshot of current relationships between Irish people and their marine and coastal environment.

- Further work should be done to build a longitudinal data set to allow for changes in ocean literacy and connections to be tracked, their drivers better understood and allow additional investigation of each of the ocean literacy dimensions. Further iterations of the questionnaire could also address the geographical gaps in the data collected, meaning that the study does not fully represent the views of Irish communities. A place-based, regional approach, utilising different data collection methods could be done in the under-represented counties to fill these gaps and build a more comprehensive data set.
- It is also worth noting that analysis found there to be high levels of public awareness and connection to the marine environment, higher than seen in other studies. It is possible that due to the sampling strategy, the questionnaire has been completed by a largely ocean-engaged population rather than being fully representative of views from across Ireland. More studies of this nature across Ireland, adopting a varied sampling approach to target under-represented communities in this study, would perhaps provide a more balanced view of levels of awareness and knowledge in Irish society.
- Finally, and importantly, the evidence presented in this report could be used as a foundation for the development of a national ocean literacy strategy for Ireland.

Appendix: Ocean Literacy and Coastal Connections in Ireland Questionnaire

Introduction

Through this survey, Fair Seas want to understand how a wide range of people use, experience and value the marine environment across Ireland. The relationship between society and the coast and ocean is one of complexity, diverse values, and multiple dimensions. Recent years have seen a growing awareness that understanding these relationships is fundamental to achieving sustainable ocean governance for the future. Often defined as having ‘an understanding of your influence on the ocean, and its influence on you’ ocean literacy has been positioned as a key mechanism for change within the UN Ocean Decade, which was launched in January 2021. The Ocean Decade is a global programme, focused on engaging communities across the world with ocean issues and seeking to deliver ocean science for sustainable ocean futures.

All information collected through this survey will be held securely and treated in the strictest confidence. No identifiable information will be shared with a third party outside of Fair Seas partner organisations. Results will be reported at an overall level so individual responses will not be identifiable. You also have the right to withdraw consent at any time. The questionnaire will take approximately 15 minutes of your time to complete.

If you have any questions or concerns specifically about this survey, you can contact the researchers using the following e-mail address: mckinleye1@cardiff.ac.uk . If you want to know more about the Fair Seas campaign to protect Ireland's seas then please use the following e-mail address: info@fairseas.ie

1. I confirm, by ticking this box, that I am over 18 and I allow you to use, anonymously, the information I provide in this questionnaire.

☐ Yes

☐ No

The Global Marine Environment

The following questions are about your views on the global marine environment. By the marine environment, we are referring to the wider ocean, seas, coasts, and estuaries and are including all aspects including marine wildlife and plants, marine habitats and ecosystems as well as marine heritage.

1. What is the first phrase or words that come to mind when you think about the marine environment?

* 2. How do you feel when you think about the marine environment? Please select the three emotions which come closest to how you feel. Please select a maximum of 3.

☐

Anger

☐

Calm/Relaxed

☐

Guilt

☐

Anxiety

☐

Hopelessness

☐

Inspired

☐

Boredom

☐

Shame

☐

Concern

☐

Curiosity

☐

Surprise

☐

Pride

☐

Fear

☐

Excitement

☐

Peaceful

☐

Frustration

☐

Enthusiastic

☐

Don't know

☐

Happiness

☐

Awe/Wonder

☐

Other (please specify)

3. The following are principles about the marine environment. Please indicate how true you believe each statement to be.

	Completely True	Mostly True	Somewhat True	Slightly True	Not at all True	Don't know
The Earth has one big ocean with many features.	☐	☐	☐	☐	☐	☐
The ocean and life in the ocean shape the features of Earth.	☐	☐	☐	☐	☐	☐
The ocean is a major influence on weather and climate.	☐	☐	☐	☐	☐	☐
The ocean made the Earth habitable.	☐	☐	☐	☐	☐	☐
The ocean supports a great diversity of life and ecosystems.	☐	☐	☐	☐	☐	☐
The ocean and humans are inextricably linked.	☐	☐	☐	☐	☐	☐
The ocean is largely unexplored.	☐	☐	☐	☐	☐	☐

4. How would you rate your awareness of challenges facing the global marine environment?
Please select one answer only.

- ☐ Very good
- ☐ Good
- ☐ Neither good nor poor
- ☐ Poor
- ☐ Very Poor
- ☐ Don't know

5. Please indicate how familiar you are with each of these terms by selecting the relevant box

	Know and understand	Heard of and have some understanding	Heard of but do not understand	Have never heard of the term
Marine Protected Areas	☐	☐	☐	☐
Eutrophication	☐	☐	☐	☐
Sustainable development	☐	☐	☐	☐
Ecosystem services	☐	☐	☐	☐
Climate change	☐	☐	☐	☐
Nature based solutions	☐	☐	☐	☐
Sustainable fishing	☐	☐	☐	☐
Biodiversity	☐	☐	☐	☐
Ocean literacy	☐	☐	☐	☐
Marine citizenship	☐	☐	☐	☐
Ocean acidification	☐	☐	☐	☐
Carbon sequestration	☐	☐	☐	☐
Blue carbon	☐	☐	☐	☐
Hope Spots	☐	☐	☐	☐
Ocean health	☐	☐	☐	☐
Blue Economy	☐	☐	☐	☐

Ireland's Marine Environment

1. How would you rate the health of the marine environment around Ireland? Please select one answer only.

- | | |
|---|----------------------------------|
| ☐ Very Poor | ☐ Good |
| ☐ Poor | ☐ Very good |
| ☐ Neither good nor poor | ☐ Don't know |

2. How important is protecting the marine environment to you personally? Please select one answer only.

- | | |
|---|--|
| ☐ Very important | ☐ Not very important |
| ☐ Important | ☐ Not at all important |
| ☐ Neither important nor unimportant | ☐ Don't know |

3. What does a healthy marine environment look like to you?

* 4. In your opinion, what are the three most important benefits that society gains from the marine environment in Ireland? Please select up to three.

- | | | |
|--|---|--|
| ☐ Oil and gas | ☐ A place for spiritual upliftment | ☐ Supporting the wider economy |
| ☐ Renewable energy (e.g. from offshore wind or tidal power) | ☐ Recreation | ☐ Research and education |
| ☐ Food to eat e.g. fish, shellfish | ☐ Transport and shipping | ☐ Disposal of waste |
| ☐ Natural forms of coastal protection | ☐ Diverse habitats for marine plants and animals | ☐ Weather and climate control |
| ☐ Places to support mental health and wellbeing | ☐ A sense of identity | ☐ Oxygen production, carbon capture and storage |
| ☐ Tourism | ☐ History and heritage | ☐ Don't know |
| ☐ Places to support physical health and exercise | ☐ Provide material for construction and infrastructure | |

Other (please specify)

8. Marine Protected Areas are specific areas of the marine environment which are managed to achieve long-term nature conservation and sustainable use. To what extent do you support or oppose the creation of Marine Protected Areas in Ireland? Please select one answer only.

- ☐ Strongly support
- ☐ Tend to support
- ☐ Neither support nor oppose
- ☐ Tend to oppose
- ☐ Strongly oppose
- ☐ Don't know

* 9. Which of the following do you think are most important when thinking about management of the marine environment in Ireland? Please select up to three.

- ☐ Introducing fisheries management measures to allow fish populations to recover
- ☐ Tightening controls over offshore renewable energy, oil and gas, and mining commercial activities and developments allowed in the sea.
- ☐ Restricting the activity of foreign commercial fishing vessels in Irish waters
- ☐ Tightening controls to reduce marine pollution from industry including agriculture
- ☐ Strengthening commitments to safeguard habitats and marine life
- ☐ Changing human consumption and behaviour to reduce waste and marine pollution
- ☐ Regulating the production, use and disposal of single-use plastics to reduce marine plastic pollution
- ☐ Increasing the protection and conservation of the marine environment through effective Marine Protected Areas
- ☐ Supporting more people to engage with the ocean e.g. including the marine environment in the primary and secondary school curriculum
- ☐ Don't know

Other (please specify)

You and the Marine Environment

* 1. Thinking about the last 12 months, where has your knowledge/ information about the marine environment in Ireland mostly come from? Please select a maximum of 3

- | | |
|---|---|
| ☐ Formal education (schools, universities etc) | ☐ Books / magazines |
| ☐ Aquariums / Zoos / Visitor Centres / Museums | ☐ Festivals / Exhibitions |
| ☐ Social media | ☐ Talks / seminars |
| ☐ Television / radio | ☐ Community events |
| ☐ Campaigns (e.g. environmental groups) | ☐ Directly from scientists |
| ☐ Films / Nature / Wildlife documentaries | ☐ Government agency |
| ☐ News (online and newspapers) | ☐ Don't know |
| ☐ Other (please specify) | |

* 2. Which of these sources of information do you trust most? Please select your top 3.

- | | |
|---|---|
| ☐ Formal education (schools, universities etc) | ☐ Books / magazines |
| ☐ Aquariums / Zoos / Visitor Centres / Museums | ☐ Festivals / Exhibitions |
| ☐ Social media | ☐ Talks / seminars |
| ☐ Television / radio | ☐ Community events |
| ☐ Campaigns (e.g. environmental groups) | ☐ Celebrities and/or influencers |
| ☐ Films / Nature / Wildlife documentaries | ☐ Directly from scientists |
| ☐ Friends / family | ☐ Government agency |
| ☐ News (online and newspapers) | ☐ Don't know |
| ☐ Other (please specify) | |

* 3. In your opinion, which of the following are the top 3 most important actions that the Irish Government should be taking to manage the marine environment? Please select 3.

- | | |
|---|---|
| ☐ Stricter fishing regulations | ☐ More equitable allocation of fish quotas |
| ☐ More Marine Protected Areas | ☐ Better management of pollution |
| ☐ Better enforcement of environmental regulations | ☐ Expand the Blue economy |
| ☐ Better management of coastal zone development | ☐ More effective management of current protected areas and/or MPAs |
| ☐ Better protection of Ireland’s fish resources | ☐ Better use of marine resources |
| ☐ Complying with international agreements | ☐ Restoration of the marine environment |
| ☐ Building capacity within government organizations to monitor and manage our marine resources | ☐ Enhancement and implementation of Nature based Solutions |
| ☐ Stopping poachers and illegal extraction of marine life | |
| ☐ Other (please specify) | |

4. In your opinion, what if anything about the marine environment in Ireland has changed over the last 10 years?

5. Which of the following activities, if any, have you done to protect the marine environment, in the last 12 months? Please select all that apply

- | | |
|--|--|
| ☐ I signed petitions about issues affecting the marine environment | ☐ I participated in science and research projects (e.g. citizen science) |
| ☐ I volunteered time to support the marine environment (e.g. beach clean-ups) | ☐ I participated in a beach clean and/or collect litter while on visiting marine/ coastal places. |
| ☐ I have made changes to my lifestyle to benefit the marine environment | ☐ I have joined an environmental organisation |
| ☐ I donated money to support the marine environment | ☐ I have spoken to/contacted an elected representative (cllr, TD, Senator) about marine enviro issues |
| ☐ I tried to persuade people I know in person to do more to help the marine environment | ☐ None of the above |
| ☐ I posted online content related to the marine environment | ☐ Don't know |
| ☐ I attended protests and demonstrations in support of the marine environment | |

Other (please specify)

6. What impact do you think your lifestyle has on the marine environment of Ireland? Please select one answer only

- ☐ Strong positive impact
- ☐ Positive impact
- ☐ No impact
- ☐ Negative impact
- ☐ Strong negative impact
- ☐ Don't know

7. Thinking about the purchases you have made and your use of packaging, which of the following activities have you done in the last 12 months where possible? Please select all that apply.

- ☐ Reduced your use of single use plastic e.g. shopping bags, plastic straws and bottles
- ☐ Recycled more
- ☐ Reduced use of disposable cups, plates and/or cutlery
- ☐ Avoided products with excess packaging
- ☐ Bought second-hand items
- ☐ Avoided products known to harm the marine environment
- ☐ Re-used any plastic as much as possible
- ☐ None of the above
- ☐ Don't know
- ☐ Other (please specify)

8. Thinking about the last 12 months have you made any visits to a marine environment? Please select one option that best applies.

- ☐ Yes
- ☐ I have not made any visits in the last 12 months
- ☐ I have never visited the marine environment
- ☐ Don't know

9. Thinking about the last 12 months, how often on average, if at all, have you spent your leisure time in the following marine environments/ places.

	Every day	Several times a week	Once a week	Once or twice a month	Once or twice in the last 12 months	Not in the last 12 months	Never	Don't know
Sandy beaches	☐	☐	☐	☐	☐	☐	☐	☐
Rocky shores	☐	☐	☐	☐	☐	☐	☐	☐
Coastal / seaside towns	☐	☐	☐	☐	☐	☐	☐	☐
Open sea	☐	☐	☐	☐	☐	☐	☐	☐
Marine Protected Areas	☐	☐	☐	☐	☐	☐	☐	☐
Cliffs	☐	☐	☐	☐	☐	☐	☐	☐
Islands	☐	☐	☐	☐	☐	☐	☐	☐
Estuaries	☐	☐	☐	☐	☐	☐	☐	☐

Other (please specify)

10. What was the main reason/s for not visiting a marine environment in the last 12 months?
Please select all that apply.

- | | |
|---|---|
| ☐ Bad / poor weather | ☐ The marine environment is in a bad condition. |
| ☐ Poor physical health (or illness) | ☐ Nowhere near me is nice enough to spend my free time in |
| ☐ Poor mental health or wellbeing | ☐ Stayed at home to stop coronavirus spreading / Government restrictions |
| ☐ Lack of facilities and access points for those with disabilities | ☐ Poor transport links / access to the coast |
| ☐ Too busy at home | ☐ Lack of parking (or the cost of parking) |
| ☐ Too busy at work | ☐ Takes too long to get there / live too far away |
| ☐ Not interested | ☐ Lack of facilities and interpretation |
| ☐ Prefer to do other leisure activities | ☐ Another reason (please specify) |
| ☐ Cost / too expensive | ☐ No particular reason |
| ☐ Fear / worry about crime | ☐ Don't know |
| ☐ Fear / worry about getting hurt or injured | |
| ☐ Other (please specify) | |

11. What recreational/ cultural activities did you undertake during your visit(s) to the marine environment in the last 12 months? Please select all that apply.

- | | | |
|--|---|---|
| ☐ Sailing | ☐ Snorkelling | ☐ Photography / videography at coast / sea |
| ☐ Rowing/kayaking/canoeing | ☐ Jet skiing | ☐ Visiting a coastal heritage site (e.g. pier, historic ships, buildings or monuments) |
| ☐ Power boating (outboard/inboard engine) | ☐ Sea swimming | ☐ Marine themed attraction (e.g. aquarium, museum) |
| ☐ Sea fishing (from shore or boat) | ☐ Walking with a dog | ☐ Beach cleaning |
| ☐ Surfing / Body boarding | ☐ Walking without a dog | ☐ Bait collection |
| ☐ Stand-up paddle boarding | ☐ Running | ☐ Rock pooling |
| ☐ Windsurfing / Kite surfing | ☐ Hiking | ☐ Cultural activities |
| ☐ Scuba diving | ☐ Sea/coastal bird/wildlife watching | ☐ Don't know |

Other (please specify)

12. Thinking about the last 12 months, do you recall any visits to a protected area in a marine or coastal environment?

- ☐ Yes
- ☐ No
- ☐ Don't know

If yes, where was your visit?

13. Thinking more generally about why you visit the marine environment, please indicate which of the following you agree with?

- | | |
|---|--|
| ☐ Visiting the marine environment clears my head. | ☐ I have made or strengthened bonds with others through visiting the marine environment. |
| ☐ I gain perspective on life during my visits to the marine environment. | ☐ Visiting the marine environment provides me with space to socialise and spend time with friends and family. |
| ☐ Visiting the marine environment makes me feel more connected to nature. | ☐ I feel like I can contribute to taking care of the marine environment. |
| ☐ At the marine environment, I feel part of something that is greater than myself. | ☐ I have felt touched by the beauty of the marine environment. |
| ☐ The marine environment feels almost like a part of me. | ☐ The marine environment inspires me. |
| ☐ I feel a sense of belonging in the marine environment. | ☐ Visiting the marine environment is good for my spirit, |
| ☐ I've had a lot of memorable experiences in the marine environment. | ☐ Visiting the marine environment leaves me feeling healthier. |
| ☐ I feel connected to my past when I visit the marine environment. | ☐ Visiting the marine environment gives me a sense of freedom. |
| ☐ I miss the marine environment when I have been away from it for a long time. | ☐ The marine environment is important for me culturally |
| ☐ Visiting the marine environment has made me learn more about nature. | ☐ Don't know |

Other (please specify)

About You

This data will help us to understand diverse views and experiences with the marine environment. It will give us valuable insight into how we can work to improve access and raise awareness of issues. You may find some of the questions sensitive, in which case you are free not to answer them. All information collected through this survey will be held securely and treated in the strictest confidence. No identifiable information will be shared with anyone else. Results will be reported at an overall level so individual responses will not be identifiable.

1. What County do you live in?

2. What is your gender identity?

3. Please put your age into one of the following age bands? Please choose one age band nly

- ☐ 18 to 24
- ☐ 25 to 34
- ☐ 35 to 44
- ☐ 45 to 54
- ☐ 55 to 64
- ☐ 65 to 74
- ☐ 75+
- ☐ Prefer not to say

4. What is your highest level of qualification? Please select one answer only

- ☐ PHD/Doctor
- ☐ Masters
- ☐ Bachelor's Degree or equivalent
- ☐ Leaving Certificate
- ☐ Junior Certificate
- ☐ No qualifications
- ☐ Prefer not to say

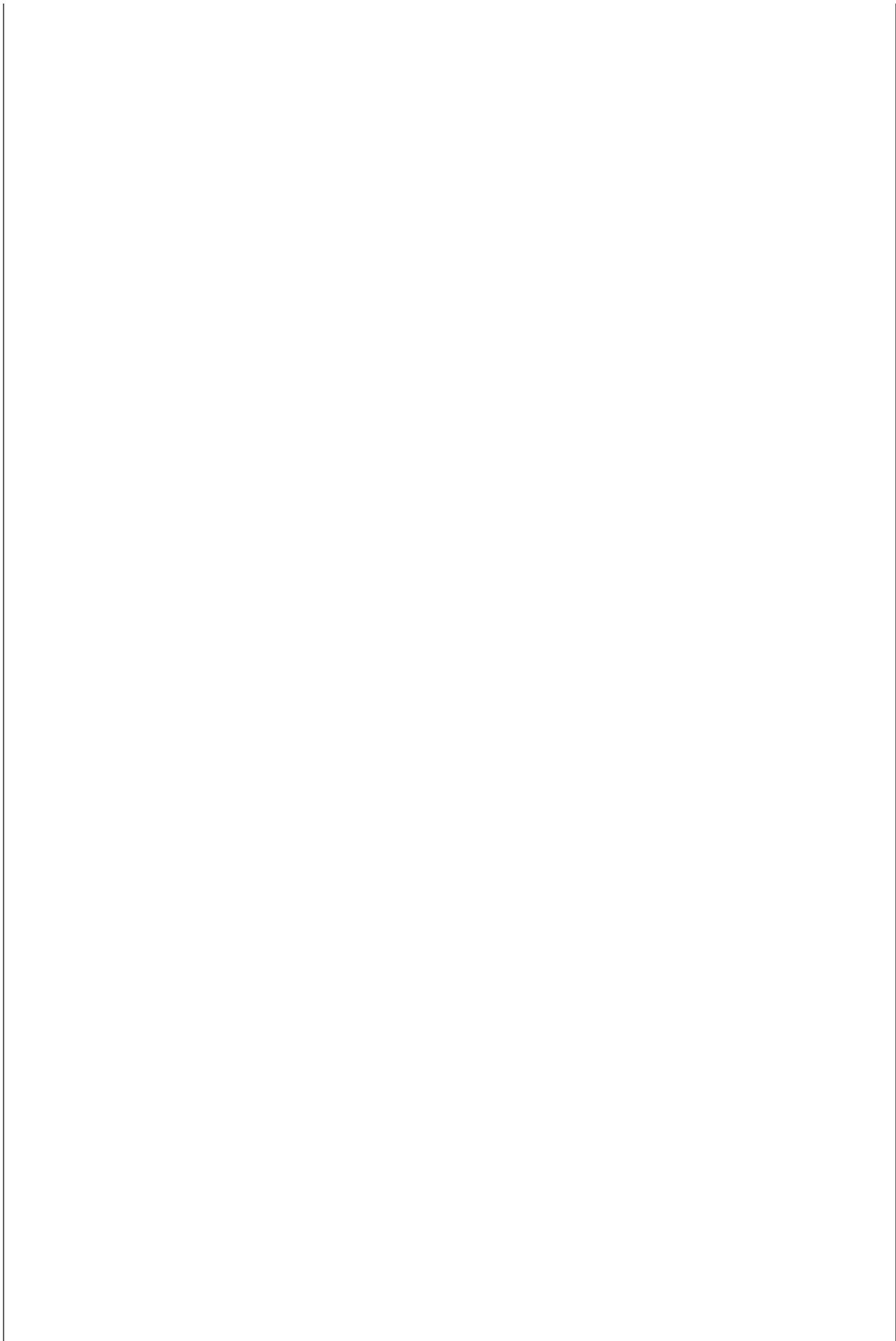
Other (please specify)

5. Are you? Please select one option that best applies.

- ☐ In full-time employment
- ☐ In part-time employment
- ☐ Self-employed
- ☐ Unemployed - less than 12 months
- ☐ Unemployed (long term) - more than 12 months
- ☐ Not working - retired
- ☐ Not working - looking after house/children/other caring responsibilities
- ☐ Not working - long term sick or disabled
- ☐ Student - in full-time education
- ☐ Student - in part-time education
- ☐ Prefer not to say

6. Are you or any of your immediate family employed in one of the following industries in Ireland? Please select all that apply.

- | | |
|---|--|
| ☐ Fishing and aquaculture (including processing etc.) | ☐ Marine policy making |
| ☐ Oil & gas | ☐ Marine planning |
| ☐ Offshore wind industry | ☐ Marine management |
| ☐ Ports and shipping | ☐ Navy |
| ☐ Marine recreation and tourism e.g. scuba diving, cruise tourism, recreational boating, surf school, sand artist, etc | ☐ Maritime heritage |
| ☐ Marine conservation | ☐ Seafood restaurant / retailer |
| ☐ Marine research | ☐ Prefer not to say |
| ☐ Marine mining | |
| ☐ Sub-marine cabling and other infrastructure | |
| ☐ Other (please specify) | |
| <div style="border: 1px solid black; height: 20px; width: 400px; margin-top: 5px;"></div> | |
| ☐ None of the above | |



At Fair Seas, we seek to protect, conserve and restore Ireland's unique marine environment. Our ambition is to see Ireland become a world leader in marine protection, giving our species, habitats and coastal communities the opportunity to thrive.

Fair Seas aims to build a movement of ocean stewardship across Ireland that energises and empowers people, to advocate for ambitious and robust legislation, provide impartial scientific data and research, and propose a network of effective well-managed marine protected areas.

The Fair Seas campaign is led by a coalition of Ireland's leading environmental non-governmental organisations and networks.

