HOPE SPOT SURVEY conducted by Ocean Missions NGO: SUMMARY RESULTS

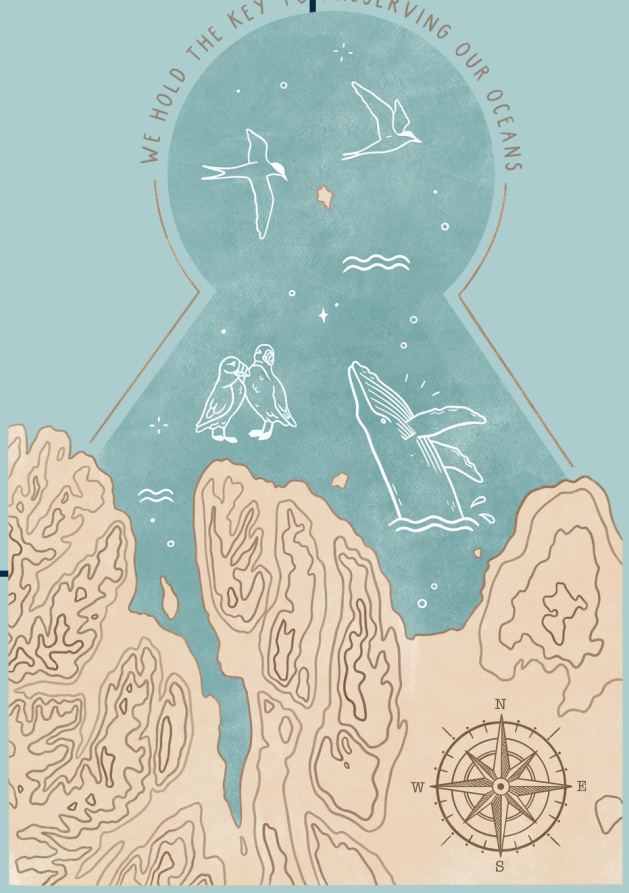
Funded by Mission Blue

MISSION BLUE™ HOPE SPOT
NORTHEAST
ICELAND
ARCTIC OCEAN

Alberto Roldán Sastre
Belén García Ovide
Charla J. Basran

Ocean Missions

Table Of Content



HOPE SPOT

NORTHEAST ICELAND

1. Executive summary

In the context of global change and ecosystem alteration, Iceland has recently taken its first steps toward establishing protection for its marine ecosystem. This report explores community **perspectives on marine conservation in the Northeast Iceland Hope Spot**, a region designated to emphasize its ecological and cultural importance.

Based on survey data from **106 local residents**, the overall results reveal a mixed perception of Iceland's marine health, with particular concerns regarding plastic pollution (68%) and the lack of protected areas (52%). The community's connection to the marine environment is reflected in their conservation priorities, including preserving biodiversity (25%), ensuring a pollution-free environment (18%), and safeguarding resources and livelihoods such as fish stocks and whale tourism (15% and 12%, respectively). Interestingly, **86% of respondents are optimistic about the Hope Spot's potential impact**, **and 78% support the creation of additional protective measures.** However, 39% of the community expressed dissatisfaction with municipal conservation efforts, which suggests a need for a greater alignment with local priorities. Further public engagement is needed to better understand and incorporate the public's opinions in creating a proper, legally-binding marine management plan for the region, which could include the entire or part of the Hope Spot area becoming a National Park, Marine Protected Area or Heritage Site. This survey helps understand changes in public opinion as marine management progresses and to target demographics that were under-represented in this sample.

Based on the current results, key recommendations for this region to move forward in this process include enhancing community engagement and awareness through focus groups and targeted educational programs, conducting scientific research to adapt conservation strategies to needs and concerns, improving municipal conservation efforts to better align with the community, and supporting local initiatives towards more responsible whale watching and small-scale fishing, while regulating the industry to balance environmental and economic goals.

2. Context

Marine ecosystems worldwide are facing major threats such as climate change, increased human activity, and loss of habitat and biodiversity (1, 2). Recent studies by scientists and Icelandic organizations such as Ocean Missions have portrayed that Iceland's marine ecosystems are being affected by these changes through recent decades (3).

While certain aspects are immediately visible, like plastic and chemical pollution or the increase in fish farming operations, others such as rising sea temperatures and biodiversity loss due to changes in species distribution and the effects of invasive species are less apparent but have long-term impacts on our marine environment (4, 5, 6).

To cope with these global issues, international organizations such as the High Ambition Coalition for Nature and People (of which Iceland is a member) aims to protect 30% of the world's land and oceans by 2030 (7). However, it is estimated that currently, less than 2% of Iceland's marine areas have some form of protection (8).

In an exciting step forward, Icelandic NGO Ocean Missions achieved a special recognition for Northeast Iceland: the designation of the first Mission Blue Hope Spot in the country. Hope Spots are "special places scientifically identified as critical for the global health of the ocean" (9, 10). The Northeast Iceland Hope Spot encompasses Skjálfandi Bay, Eyjafjörður, and Grímsey, all areas valued not only for their biodiversity but also for their cultural, economic, and social significance to the surrounding local communities. Furthermore, this region is well recognized as the home of many marine species, both migratory and resident, that rely on these productive waters for feeding and breeding (11).

3. Purpose

Although a Hope Spot designation does not come with a legally-binding framework, its implementation helps to raise awareness about the need for the sustainable management of this area. Therefore, developing a management plan that aligns with local priorities and concerns could help preserve the marine environment while benefiting the surrounding communities.

To make this management plan meaningful, Ocean Missions has initiated a community-based approach that gathers local views and opinions on how best to protect this region in the future. As a first stage of this process, a survey was conducted to understand the community's perspective on these key areas:

1) **Community Awareness** - How do people perceive the current state of Iceland's marine ecosystems, particularly within the Northeast Iceland Hope Spot?

2) **Preservation priorities** - what are the key cultural, natural, and economic elements of the marine environment that the community considers most important to preserve for future generations?

3) **Satisfaction with protection efforts** - Are locals satisfied with the current protective measures taken and the community involvement in the marine conservation process?

4) **The Hope Spot's Impact** - How do locals view the Hope Spot designation regarding its potential impacts on community activities and values related to the ocean?

5) **Support for Marine Protection** - How do people feel about establishing protection laws and regulations for the marine ecosystem?

6) **Local activities and management** - What are the community's views on current or future activities in the Hope Spot, and should these activities be included in a future management plan?

4. Methodology

This report is based on a survey conducted by Ocean Missions completed by 106 local participants aged 18 and older, between October 2023 and July 2024. The survey was available in English and Icelandic and was shared both during public talks and gatherings and online with residents of the Northeast region of Iceland (population: 31,574) (12). Participants were mainly from Akureyri (pop. 19,542), Húsavík (pop. 2,449), Dalvík (pop. 1,360), and Grímsey (pop. 57).

Survey responses were collected through an online platform (Survey Monkey) and later analyzed using Excel 2013. All survey questions were close-ended unless stated otherwise. For open-ended questions, responses were grouped by topic to summarize complex ideas into clear, concise opinions. Results of responses to survey questions are presented as percentages.

Online surveys are accepted for general population studies when they are well-designed and involve a large, representative sample. Results reported here serve as a preliminary insight into the Northeast Iceland community's perception, which can be built upon in future studies.

5. Analysis and evidence

Ocean Missions investigated community perceptions of the designation of the Northeast Iceland Hope Spot and opinions on managing activities within this area. The findings, which reflect local knowledge and awareness of the situation, are summarized in the following subsections.

Before examining the survey results, it's important to highlight the unique demographics of this region, known for its high number of seasonal workers and a large international community. To reach more participants, the survey was conducted in both English and Icelandic, and the findings were influenced by the differing characteristics of these groups.

Icelandic-speaking respondents were more evenly distributed by age (41% aged 18–40, 57% aged 41+), while English speaking respondents were predominantly younger (90% aged 18–40). Many English speakers (40%) had lived in the region for a year or seasonally, compared to 93% of Icelandic speakers who had been residents for over five years. Future plans also varied between both groups: 76% of Icelandic speaking respondents intended to stay long-term, while 43% of English speaking respondents are planning on living in the region seasonally and 33% for up to ten years full-time.

Job types further reflect these differences. Most Icelandic speaking respondents (68%) reported their job had little or no connection to the ocean, with jobs in retail and services industries making up 27%. Jobs in marine conservation, research and tourism combined made up only 37% of Icelandic responses. In contrast, 70% of English speaking respondents had ocean-related jobs, with 76% working in a job related to marine conservation, research, or tourism. A likely explanation for this is the huge presence of young temporal workers, who work or have worked in the tourism and research sector, sectors heavily tied to seasonal whale-watching operations in the region.

These demographic patterns suggest that future surveys should aim to include underrepresented groups, such as Icelandic speaking respondents in ocean-related jobs like shipping and fishing, and other underrepresented jobs such as farming and healthcare. Additionally, long-term, resident English speaking respondents in non-ocean sectors and those older than 40 years old should be targeted. Greater participation from these groups would provide a more comprehensive understanding of local perspectives.
Lastly, these demographic differences influence the interpretation of the responses and perceptions in the survey, so results are sometimes presented separately for Icelandic and English speaking respondents to better reflect each group's perspective.

5.1 Perception of Iceland's Marine Environment Health:

Opinions on the health of Iceland's marine ecosystems are mixed, with a slight trend towards concerns about its state (Figure 1).
When looking at specific indicators, the community is mostly concerned about issues such as plastic pollution (68%), lack of protected areas (52%), and marine traffic (50%), when "poor" and "very poor" responses are combined. On the positive side, fish stocks (54%), the abundance of endemic and migratory species (69%), and the frequency of catastrophic events (40%) are viewed as being in a "good" or "excellent" state. However, there is a noticeable lack of awareness or opinion on several issues, indicated by a high number of 'I do not know' responses, particularly invasive species (41%) and underwater noise pollution (38%).
The results reveal a divided opinion about Iceland's marine ecosystem, likely influenced by varying levels of awareness and understanding of the selected indicators. For example, indicators tied to visible environmental or economic activities, like species abundance or marine traffic, and those highlighted through educational projects or social media, such as plastic pollution, had fewer "lack of knowledge" responses (17, 18). Public knowledge could improve with better information programs, and further research is needed to understand how awareness differs across social groups (14).

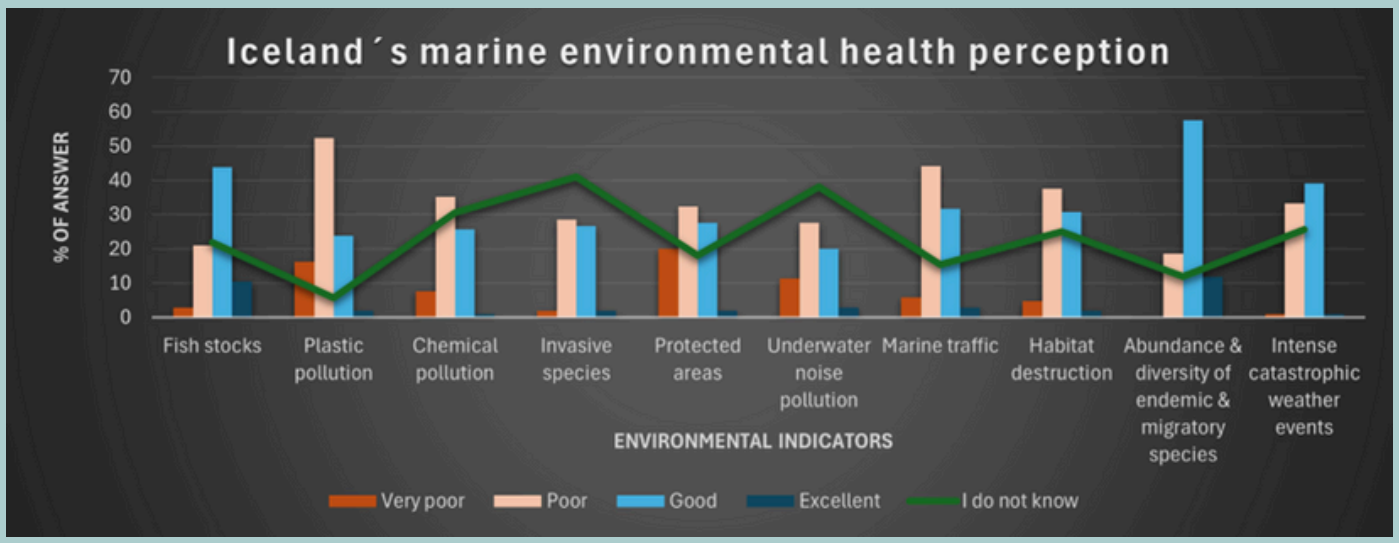


FIGURE 1. PERCEPTION OF ICELAND´S MARINE ENVIRONMENT HEALTH. THIS GRAPH SHOWS THE ENVIRONMENTAL INDICATORS ASKED ABOUT IN THE SURVEY AND THE PERCENTAGE OF RESPONSES FROM 'VERY POOR' TO 'EXCELLENT' REPRESENTED BY COLOURED BARS, AND OF 'I DO NOT KNOW' REPRESENTED BY THE GREEN LINE.

5. 2 Perception of Preservation for Future Generations:

Perceptions of what is important to preserve are well recognized and defined by the community, giving special importance to biodiversity, a pollution-free environment, and the livelihoods tied to marine resources such as fish stocks and whales.
When asked about what should be protected, the community mostly highlighted nature-related elements in open-answer questions. **Biodiversity was the top priority (25%)**, often referring to wildlife (e.g., birds, whales) (Figure 2)**. Pollution-free environment (18%) was also a major concern,** with people expressing the need to tackle plastic and water pollution through better management. Protection of ecosystems (15%) and fish stocks (15%) were also important, especially to safeguard habitats and support small-scale fishing. The importance of clean beaches (10%) was valued and recognized through wording referring to clean beaches, shorelines, and landscapes. Lastly, whales (12%) were considered important, with the community calling for ensuring their well-being through actions such as better whale-watching regulations.

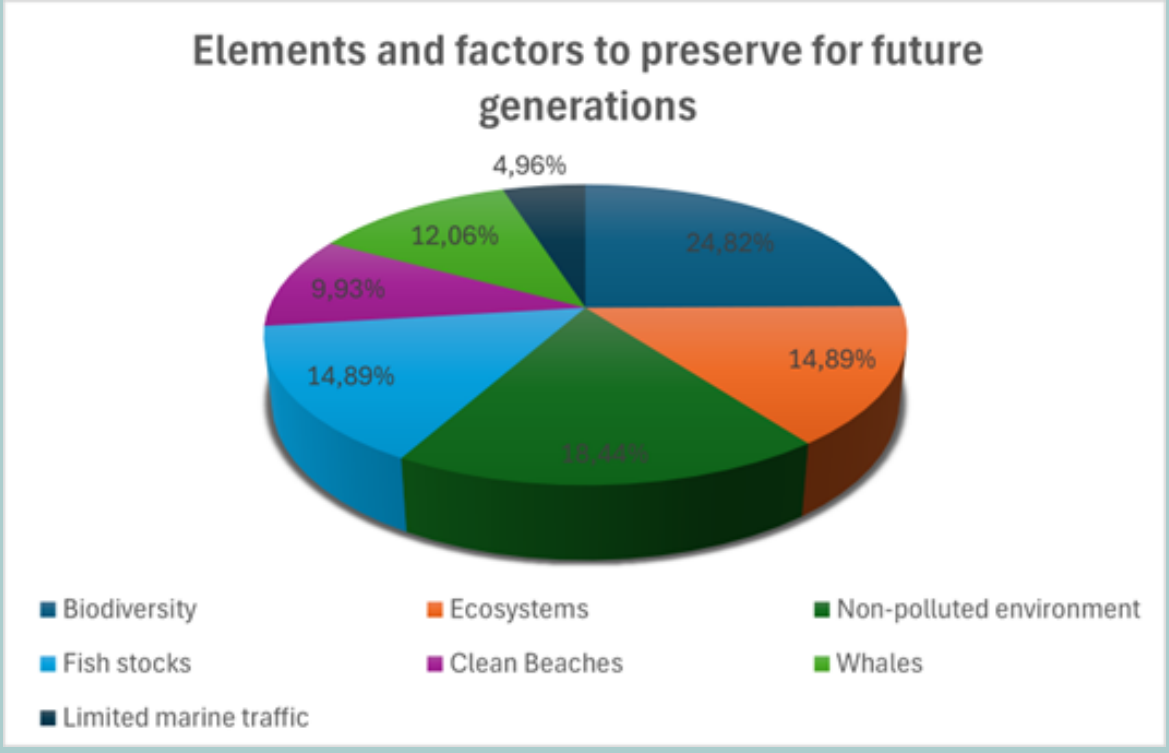


FIGURE 2. ELEMENTS TO PRESERVE FOR FUTURE GENERATIONS. THIS GRAPH SHOWS THE PERCENTAGE OF RESPONDENTS THAT MENTIONED EACH ELEMENT WHEN ASKED WHAT THEY BELIEVE IS MOST IMPORTANT TO PRESERVE OR PUT IN PLACE FOR FUTURE GENERATIONS. THE QUESTION WAS OPEN-ENDED AND KEY WORDS AND IDEAS FROM RESPONSES HAVE BEEN COMBINED INTO CATEGORIES.

5.3 Perception of the Hope Spot's Role:

The community believes the Hope Spot will play a critical role in preserving the ocean.

Overall, **86% of the respondents believe that the Hope Spot can have a positive impact** based on their values and personal connection to the ocean, when combining both 'slightly positive' and 'extremely positive' responses (Figure 3). Only a small portion expressed a negative (4%) or neutral (10%) view.

These results reflect the community's support for improving marine conservation, aligning with the recent recognition of the Hope Spot as a first step in this effort. Yet, extensive and concrete discussions and community meetings are needed to better understand public and stakeholder opinions on developing a legally binding marine management plan to prevent potential impacts on community values –such as economic and cultural aspects– and enhance engagement and satisfaction (13, 15).

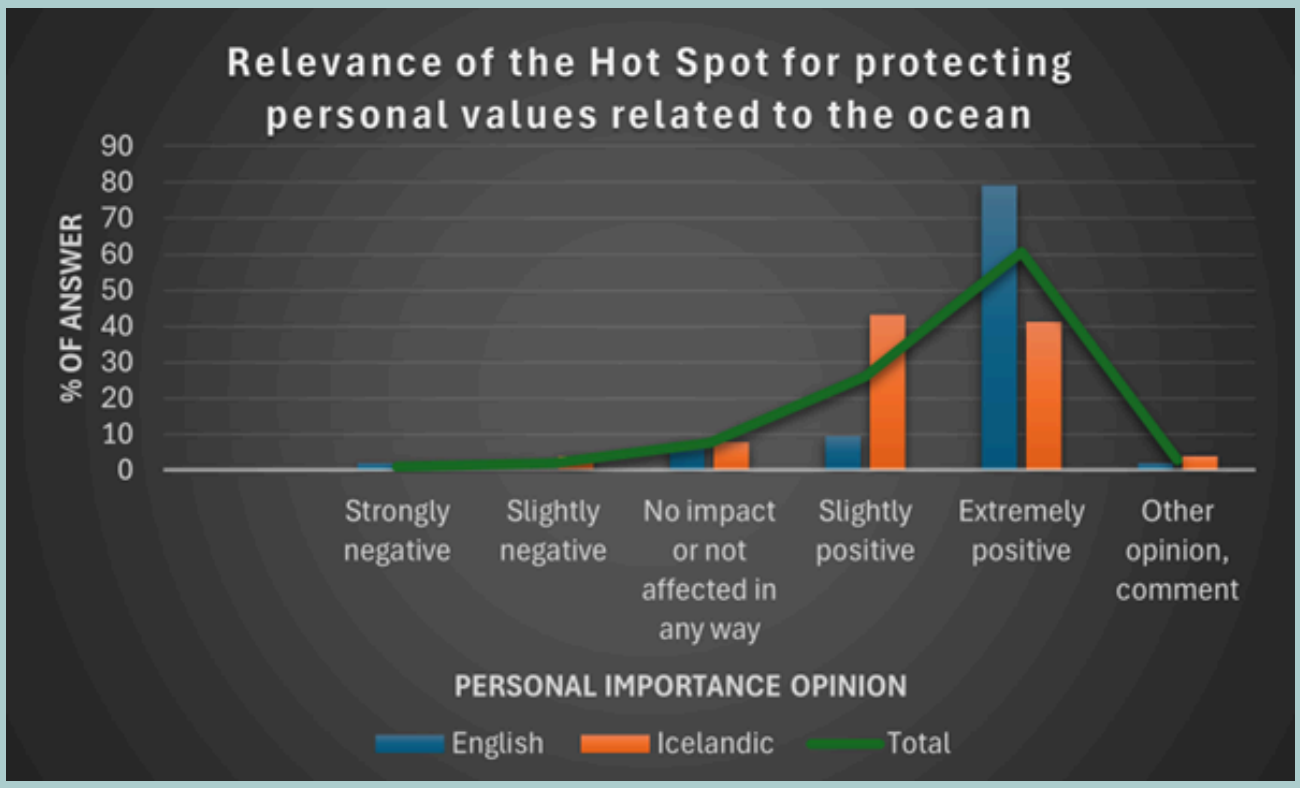


FIGURE 3. PERCEPTION OF THE HOPE SPOT BASED ON PERSONAL VALUES RELATED TO THE OCEAN. THE GRAPH SHOWS THE RESPONDENT'S OPINION OF THE HOPE SPOT FROM 'STRONGLY NEGATIVE' TO 'EXTREMELY POSITIVE' IN PERCENTAGE OF ENGLISH SPEAKING RESPONDENTS (BLUE BARS), ICELANDIC SPEAKING RESPONDENTS (ORANGE BARS) AND ALL RESPONDENTS COMBINED (GREEN LINE).

5.4 Satisfaction with Municipal Protection Efforts:

Compared to the positive view of the Hope Spot, the community shows greater dissatisfaction or neutrality regarding the municipal government's efforts to protect the ocean.
Overall, **39% of respondents are 'dissatisfied' or 'very dissatisfied' with local conservation policies**, with a higher level of dissatisfaction among English speaking respondents (49%) compared to Icelandic speaking respondents (29%) (Figure 4). Additionally, 24% of respondents expressed neutral opinions ("neither satisfied nor dissatisfied"), while 23% had no opinion.
The negative perception of local authorities' actions highlights the need for further research to determine whether this dissatisfaction stems from municipal inaction, limited conservation efforts, low public awareness of municipal projects, or a lack of public engagement leading to a misalignment between community priorities and municipal efforts (16).

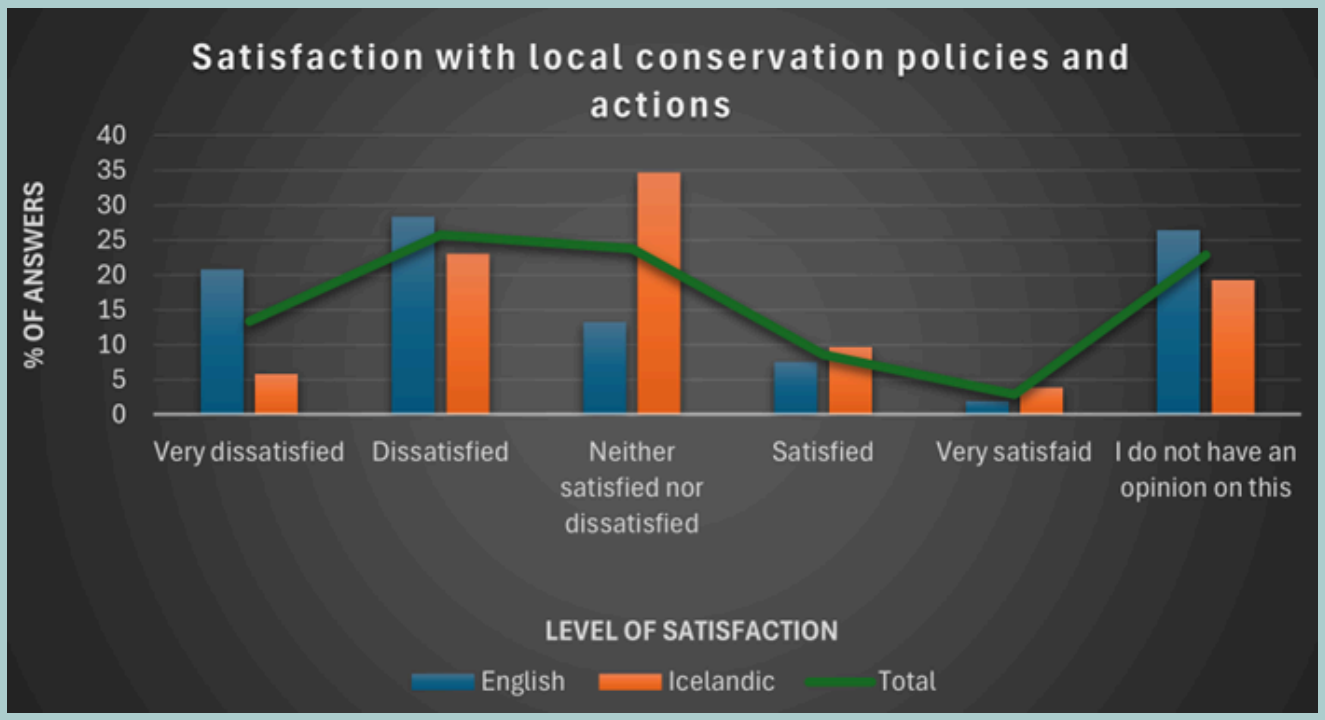


FIGURE 4. SATISFACTION WITH LOCAL CONSERVATION POLICIES AND ACTIONS. THIS GRAPH SHOWS THE LEVEL OF SATISFACTION FROM 'VERY DISSATISFIED' TO 'VERY SATISFIED' IN PERCENTAGES FOR ENGLISH SPEAKING RESPONDENTS (BLUE BARS), ICELANDIC SPEAKING RESPONDENTS (ORANGE BARS) AND ALL RESPONDENTS COMBINED (GREEN LINE).

5.5 Support for the Creation of a Protection Figure:

Overall, the community seems to be strongly in favor of the creation of a figure of protection (e.g., Marine Protected Area, National Park, etc.) in the Hope Spot area.

78% of respondents were either "slightly" or "strongly" in favor of the creation of a protection figure for better conservation and management, while only 6% were "slightly" or "strongly" opposed this (Figure 5). Additionally, 16% of people were undecided or had a different opinion. Support for a protection figure was consistent across Icelandic (73%) and English (83%) speaking respondents, with a great majority in favor.

This attitude calls for further action to create a marine protection figure, such as a Marine National Park, that is in line with the community's desires. Further engagement with the community on this topic to understand their needs can ensure meaningful participation from all involved in the establishment and development of this figure (16).

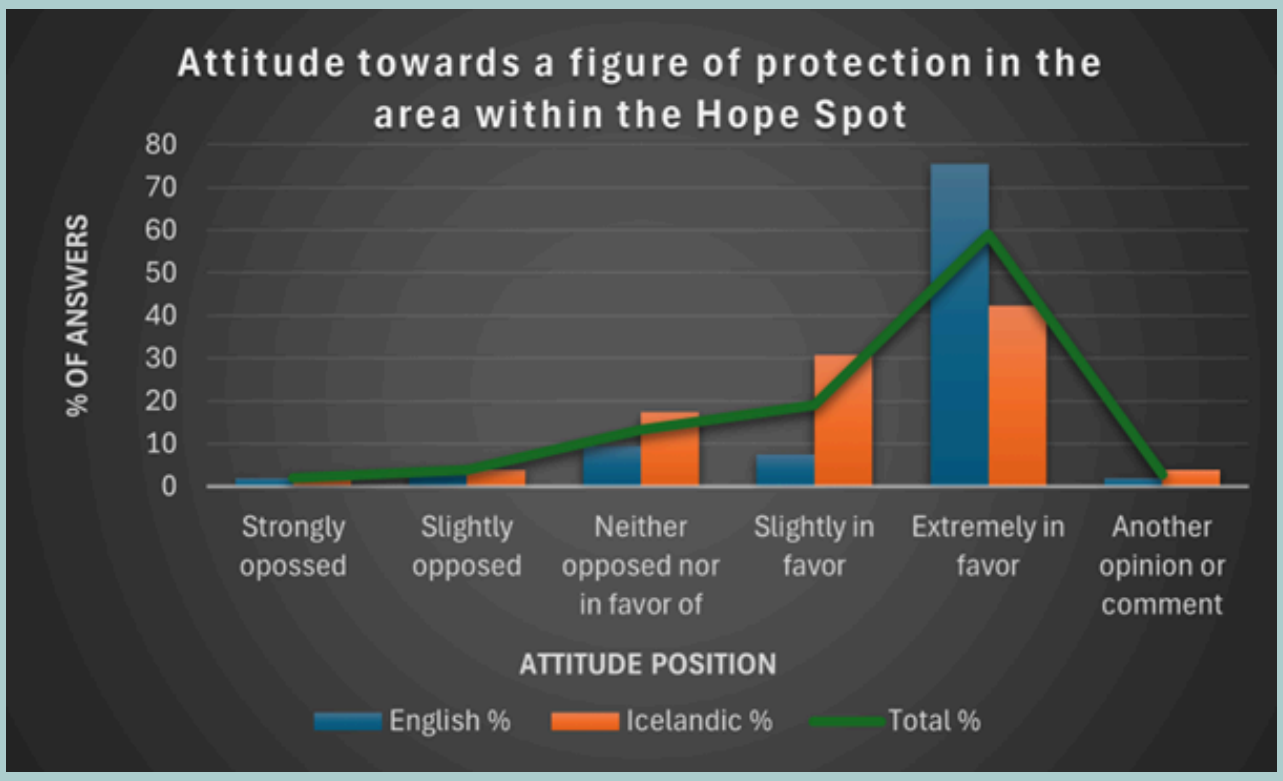


FIGURE 5. ATTITUDE TOWARDS A FIGURE OF PROTECTION. THIS GRAPH SHOWS RESPONSES FROM "STRONGLY OPPOSED" TO "EXTREMELY IN FAVOR" IN PERCENTAGES FOR ENGLISH SPEAKING RESPONDENTS (BLUE BARS), ICELANDIC SPEAKING RESPONDENTS (ORANGE BARS), AND ALL RESPONDENTS COMBINED (GREEN LINE).

5.6 Perception of Future Management of Activities:

The community shows strong support for further management of activities in the Hope Spot area, particularly those that may impact the environment or local communities.

The respondents clearly distinguished between those activities that need further management measures and those that do not within the Hope Spot. Strong majorities of **80% or more raised their concern about large-scale industrial activities** that can either have an impact on the communities or the environment such as hunting, marine transportation, and large-scale fishing (Figure 6). Similarly, activities requiring new infrastructure and may be affecting the area's aesthetics, such as fish farming, port development, and kelp harvesting are seen as needing stricter oversight. Interestingly, tourism-related activities, such as cruise ships and motorized activities also face calls for more regulation (88% and 77%, respectively), though opinions on whale watching are split (54% in favour of stronger regulation and 45% against). Conversely, activities like education, scientific research, and small recreational businesses, such as sea angling or diving, are not seen as in need of stronger management, with fewer than 40% of respondents calling for further regulation.

These results support previous findings on what the community values for preservation and the positive attitude toward enhanced protection. They also offer initial insights into activities that should be restricted and set the stage for discussions on management measures for these existing activities.

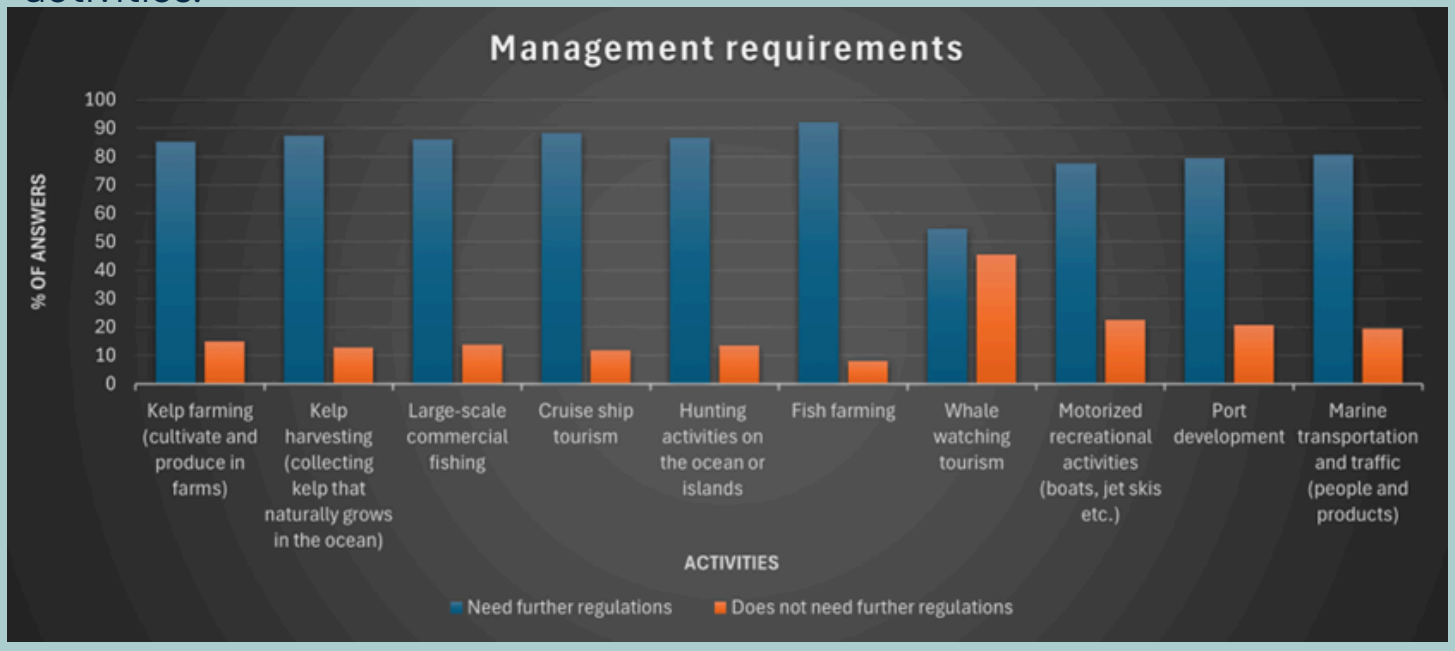


FIGURE 6. MANAGEMENT REQUIREMENTS FOR ACTIVITIES WITHIN THE HOPE SPOT. THIS GRAPH SHOWS THE ACTIVITIES ASKED ABOUT IN THE SURVEY AND THE PERCENTAGE OF RESPONDENTS WHO BELIEVED THE ACTIVITY "NEEDS FURTHER REGULATIONS" (BLUE BARS) OR "DOES NOT NEED FURTHER REGULATIONS" (ORANGE BARS).

6. Recommendations for Next Steps

Based on the results of this survey we make the following recommendations to move forward with marine protection in the Northeast Iceland Hope Spot area:

A. Increase Community Engagement and Awareness

- Community Participation: Organize focus group discussions with stakeholders to better understand their perspectives on the Hope Spot management plan, including economic and cultural impacts.
- Educational Programs: Launch targeted initiatives to educate about lesser-known marine threats (e.g., underwater noise, invasive species), using insights from surveys and focus groups to inform the public and align scientific research with public opinion and policy.

B. Research and Monitoring

- Impact Assessment: Conduct studies to evaluate the ecological and social effects of the Hope Spot designation, focusing on species abundance, pollution, and public opinion.
- Informed Management: Use research, such as studies on whale behavior or noise pollution, to inform and refine marine management strategies, especially in relation to marine traffic.

6. Recommendations for Next Steps

C. Improve Municipal Involvement

- Public Satisfaction: Use further surveys to identify and address the public's concerns related to marine activities and the environment within the Northeast Iceland Hope Spot area, aiming to improve municipal conservation policies and communication efforts.
- Better Communication: Provide regular updates and clearer communication about municipal protection initiatives to foster trust and satisfaction.

D. Promote Sustainable Local Activities

- Support ecologically sustainable local industries (e.g., responsible whale watching, small-scale fishing) through financial incentives or social benefits.

E. Sensitive Management Plan Development

- Develop regulations, through government and community participation, that balance tourism and economic interests with conservation, such as limits on cruise ships and whale watching licenses, implementation of code of conduct rules, and requiring full environmental impact assessments for new developments
- Create a legally-binding framework for implementing and monitoring compliance of these regulations

7. Conclusion

Iceland stands at a pivotal crossroads in marine conservation, where the balance between ecological preservation and community priorities must be struck with urgency and intention. The findings of this study, though preliminary, underscore a powerful opportunity: by aligning municipal efforts with the clear public desire for stronger marine protection measures, Iceland can not only safeguard its marine ecosystems but also solidify its leadership in sustainable ocean stewardship on the global stage. The time to act is now, with decisive steps toward legally-binding, community-driven marine management that ensures the Northeast Iceland Hope Spot serves as a beacon of hope—not just for the region, but for the world.

8. References

1) Intergovernmental Panel on Climate Change (IPCC). (2021). Climate change 2021: The physical science basis. Contribution of working group I to the sixth assessment report of the intergovernmental panel on climate change. Cambridge University Press. https://www.ipcc.ch/report/ar6/wg1/

2) WWF (2024) Living Planet Report 2024 – A System in Peril. WWF, Gland, Switzerland

3) Skarphéðinsson, K. H., & Pálsson, S. (2020). Seabird decline in Iceland: A review of possible causes. ICES Journal of Marine Science, fsaa123. https://doi.org/10.1093/icesjms/fsaa123

4) Kienitz, A. T. (2013). Marine Debris in the Coastal Environment of Iceland´s Nature Reserve, Hornstrandir - Sources, Consequences and Prevention Measures. University of Iceland. Retrieved from https://skemman.is/bitstream/1946/15898/4/Anna-Theresa%20Kienitz%20(3).pdf

5) Singh, W., Guðnason, K., Montanyès, M., & Lindegren, M. (2024). Climate driven response of the Iceland-East Greenland-Jan Mayen capelin distribution. Fisheries Oceanography. https://doi.org/10.1111/fog.12702

6) Icelandic Meteorological Office. (n.d.). Climate report. Vedur. https://en.vedur.is/climatology/iceland/climate-report

7) High Ambition Coalition for Nature and People. (2024, September 26). Governments present new initiatives and share progress to date on 30×30 and nature finance contributions ahead of COP16. HAC for Nature and People. https://www.hacfornatureandpeople.org/governments-present-new-initiatives-and-share-progress-to-date-on-30x30-and-nature-finance-contributions-ahead-of-cop16/

8) Statistics Iceland. (n.d.). Sustainable Development Goal indicator 14.5.1: Coverage of protected areas in relation to marine areas. Retrieved December 16, 2024, from https://heimsmarkmidin.hagstofa.is/en/14-5-1/

9) Mission Blue. (n.d.). Hope spots. Retrieved October 24, 2024, from https://missionblue.org/hope-spots/

8. References

10) Ocean Missions. (n.d.). Marine protection hope spot. Retrieved October 24, 2024, from https://oceanmissions.org/marine-protection-hope-spot/

11) Statistics Iceland. (n.d.). Municipalities and urban nuclei. Retrieved December 17, 2024, from https://www.statice.is/statistics/population/inhabitants/municipalities-and-urban-nuclei

12) Gall, S. C., & Rodwell, L. D. (2016). Evaluating the social acceptability of Marine Protected Areas. Marine Policy, 65, 30–38. https://doi.org/10.1016/j.marpol.2015.12.004)

13) Gelcich, S., Buckley, P., Pinnegar, J. K., Chilvers, J., Lorenzoni, I., Terry, G., Guerrero, M., Castilla, J. C., Valdebenito, A., & Duarte, C. M. (2014). Public awareness, concerns, and priorities about anthropogenic impacts on marine environments. Proceedings of the National Academy of Sciences, 111(42), 15042–15047. https://doi.org/10.1073/pnas.1417344111

14) McNeill, A., Clifton, J., & Harvey, E. S. (2018). Attitudes to a marine protected area are associated with perceived social impacts. Marine Policy, 94, 106–118. https://doi.org/10.1016/j.marpol.2018.04.020

15) Rodrigues, J. G., Villasante, S., & Sousa-Pinto, I. (2024). Exploring perceptions to improve the outcomes of a marine protected area. Ecology and Society, 29(3). https://doi.org/10.5751/ES-15159-290318

16) Soares, J., Miguel, I., Venâncio, C., Lopes, I., & Oliveira, M. (2020). Perspectives on Micro(Nano)Plastics in the Marine Environment: Biological and Societal Considerations. Water, 12(11), Article 11. https://doi.org/10.3390/w12113208

17) van Oosterhout, L., Dijkstra, H., van Beukering, P., Rehdanz, K., Khedr, S., Brouwer, R., & Duijndam, S. (2022). Public Perceptions of Marine Plastic Litter: A Comparative Study Across European Countries and Seas. Frontiers in Marine Science, 8. https://doi.org/10.3389/fmars.2021.784829