

Public awareness of climate change, its effects and solutions in marine and coastal environments

Policy makers are increasingly aware of the adverse effects climate change and environmental degradation have for our coasts and oceans. However, decision-making on the actions to take may be influenced by public opinion. Whilst climate change has been subject to increasing international attention, there has been less focus on how informed the public are about climate change impacts and solutions in marine and coastal systems.

In the scope of the [MaCoBioS](#) research project (funded under EU Horizon 2020 grant agreement No 869710), this survey aims to better understand public perceptions about how climate change may affect the sustainable management of marine and coastal resources. The results of this survey will inform our work on developing clear policy advice on how to manage resilient marine and coastal ecosystems.

This survey should take approximately 10 minutes to complete. It is composed of 20 questions across four sections.

You can find more information about the project and this survey in the [participant information sheet](#). If you have any questions, please contact info@macobios.eu.

Your voice is important and we appreciate you taking the time to complete our survey.

1. Please consider the statements below and tell us whether you wish to continue with the survey. If you are unable to select 'Yes' for all the statements, you will not be directed to complete the questionnaire.

If you missed it, here is the [participant information form](#) again.

- I have read and understand the information provided above and in the participant information sheet
- I understand that my participation is voluntary
- I understand that I may withdraw and stop participating at any time during the survey
- I understand that there will be no negative consequences for withdrawal
- I understand that I should be 18 years old or over to participate
- I understand that once submitted my data will be anonymous and cannot be withdrawn later, unless I choose to provide my contact details and request withdrawal by 16th March 2022
- I understand that I can request my contact details be deleted at any time should I choose to provide them
- I agree to proceed with the questionnaire

Yes - I agree to the above statements and wish to proceed with the survey

No - I disagree with the above statements and do not wish to proceed with the survey

If select 'No' they are taken to an exit page saying "Thank you for your interest in our survey however you are not eligible to take part in this study. Please keep an eye on our website www.macobios.eu for opportunities to engage with us in the future."

Section 1. Perceptions about climate change

1. Do you think the world's climate is changing?

Please choose only one option

- Definitely changing
- Probably changing
- Probably not changing
- Definitely not changing
- I don't know

2. Based on your understanding, which of the following best describes what is most responsible for causing climate change?

Please choose only one option

- Entirely natural processes
- Mainly natural processes
- About equally natural processes and human activity
- Mainly human activity
- Entirely human activity
- I don't think climate change is happening
- I don't know

3. How well informed do you feel about climate change?

Please choose only one option

- Very well informed
- Well informed
- Somewhat informed
- Not well informed
- Not at all informed
- I don't know

4. How concerned are you about climate change?

Please choose only one option

- Very concerned
- Somewhat concerned
- Not very concerned
- Not at all concerned
- I don't know

5. When you think about the effects of climate change in your country, what are your top concerns? Please list up to three.

Maximum 40 characters per line

1	
2 (optional)	
3 (optional)	

Section 2: Perceptions about the value of, and threats to, coasts, oceans and their wildlife

6. In your opinion, what are the three most important benefits that people in your country gain from the coast and oceans, including their wildlife?

Please choose three options

- Food
- Recreation and tourism
- Places to support mental health and wellbeing
- Transport and shipping
- Natural coastal protection
- Renewable energy
- Raw materials for construction
- Places to support diverse marine plants and animals
- Climate control
- Aesthetic pleasure
- Places that provide a sense of identity
- Oil and gas
- Water quality
- Places that support history and cultural heritage
- Other (please specify)

If select 'other' a box opens to allow them to type into.

7. Please rate the following threats to marine and coastal ecosystems in your country as to how to how serious you feel the threat is:

	Very low	Low	Medium	High	Very high	I don't know
Fishing / harvesting of marine and / or coastal life						
Extraction of non-living resources (e.g. sand, aggregates, minerals)						
Plastic pollution						
Shipping						
Climate change						
Coastal development						
Tourism / recreation						
Aquaculture						
Land runoff						
Marine noise						
Invasive species						
Chemical pollution						
Other infrastructure (e.g. renewable energy, communications)						

8. To what extent do you agree or disagree with the following statements:

	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree	I don't know
The health of marine and coastal ecosystems is critical for human wellbeing						
Marine and coastal ecosystems are in excellent health in your country						
Climate change is causing irrevocable damage to marine and coastal ecosystems in your country						
The oceans are too large for humans to cause lasting damage						
Marine and coastal ecosystems have a major influence on weather and climate						
Marine and coastal ecosystems are essential for reducing or slowing climate change						
Marine and coastal ecosystems are essential for supporting global and local economies						

9. The following is a list of possible effects of climate change on coasts, oceans and marine wildlife. From these, please select the three that you feel are of most concern in your country. Please choose three options or select 'None' if you do not feel any effects of climate change are of concern in your country

- Coastal erosion
- The ocean becoming more acidic
- Changes to ocean currents
- Changes in ocean productivity
- Changes in sea temperature
- Sea level rise
- Changes in the distribution of marine and coastal plants and animals
- Changes in the frequency of extreme weather events
- Reduced ability to take up and store carbon
- Coastal flooding
- Other (please specify)
- None

If select 'other' a box opens to allow them to type into.

Section 3. Perceptions about climate change response

10. In your opinion, which three of the following key goals should be of greatest priority for governments to address?

Please choose three options or select 'None' if you do not feel any of the goals listed should be of priority to address

- Protecting natural resources and ecosystems
- Improving human health and healthcare systems
- Improving management of agriculture and forestry
- Improving education opportunities
- Managing the environment to improve human health (e.g. air quality, access to greenspace, green roofs, etc.)
- Addressing climate change
- Reducing economic insecurity and inequality
- Improving management of marine fisheries
- None

11. How much responsibility do you think the following should have for acting on climate change?

	No responsibility	Some responsibility	A lot of responsibility	I don't know	Not applicable because climate change is not happening
United Nations					
Regional organisations (e.g. EU, CARICOM)					
National government					
Local government					
Business and industry					
Individuals					
Community groups					
NGOs / charities					

12. To what extent do you agree or disagree with the following statements:

	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree	I don't know
Society is doing much to address the impacts of climate change						
Protecting specific places along the coasts and in the oceans is unlikely to improve their health or benefit people						
Climate change will hurt future generations						
People do not need to worry about climate change because new technologies will be developed to help address adverse environmental changes						
Enhancing and preserving marine and coastal ecosystems should be a key focus of policies that address climate change, nature conservation and sustainable development						
I would support actions to protect the oceans, even if it meant eating less seafood and paying more for it						
Taking action on climate change will damage my country's economy						
Climate change will harm me personally at some point in my lifetime						
Society should be doing more about climate change						
Solutions working with natural systems (e.g. restoring ecosystems) can improve the health of marine and coastal ecosystems and benefit people						
There is too much uncertainty in scientific evidence to know how best to act on climate change						
Improving the health of marine and coastal ecosystems will benefit people by contributing to climate change mitigation and adaptation						

13. One approach currently being considered to help address key societal issues is Nature-Based Solutions. Have you heard about Nature-Based Solutions?

Please choose only one option

- I know a lot about Nature-Based Solutions
- I have heard of Nature-Based Solutions
- I have not heard of Nature-Based Solutions

Section 4. About you

The following section includes questions that collect demographic information. The majority of these are optional to complete. The purpose of collecting this information is to help us determine how comprehensive and inclusive the results from this survey will be, whether different groups perceive climate change and marine and coastal ecosystems differently, and for us to ask whether you would be prepared to engage with MaCoBioS in the future.

14. Where do you live?

Please select only one option. If your country or territory is not included in this list please select 'other' and specify your country's name in the box that appears

Drop-down list of countries

If select 'other' a new question ("Please specify the country or territory you live in") opens with a box for them to type into.

15. Of the following, which best describes how you mostly interact with coasts and oceans?

Please choose one option

- I produce food through fishing and/or seafood production
- I am a tourist and/or recreational user
- I provide tourism and/or recreation services
- I am actively involved in conservation, management and/or scientific advice
- Other (please specify)

If select 'other' a box opens to allow them to type into.

16. How old are you?

Please choose one option

- <18
- 18-30
- 31-40
- 41-50
- 51-60
- >60
- Prefer not to answer but over 18

17. What best describes your gender identity?

Please choose one option

- Female
- Male
- Prefer to self-describe
- Prefer not to say

If a participant selects prefer to self-describe a box opens to allow them to type into.

18. What is the highest level of education you have completed?

Please choose one option

- Did not attend school
- High/Secondary school or equivalent
- Bachelor's degree (e.g. BA, BSc)
- Master's degree (e.g. MA, MSc, MRes, MEd)
- Doctorate (e.g. PhD)
- Prefer not to answer
- Other (please specify)

If a participant selects 'other' a box opens to allow them to type into.

19. If you have anything to add about the issues raised in this survey or any comments about the survey itself, please write them here (optional):

Open comment box

20. If you would like to be contacted in the future by MaCoBioS please complete the following personal details. Choosing to share your details is optional. If you do choose to share your email, we will be able to send you updates on this consultation and information on future activities you may wish to participate in. (optional)

Name:

Email:

Organisation:

Thank you for participating in this survey!

Thank you for taking part in our research about climate change its effects and solutions in marine and coastal environments. The purpose of this research was to help us understand public perceptions and attitudes towards climate change and marine and coastal ecosystems, and levels of support for policy actions aiming to address these, from around the world. The results from this survey will be published or presented in academic papers and presentations. They will also be summarised on the MaCoBioS project's webpage, www.macobios.eu. We will email a link to the results when they become available to all participants who provided their contact details. Please do share this survey with your friends and networks!

If you have any questions or you are interested in finding out more about this research please contact us at info@macobios.eu.