You are receiving this survey as part of the ICES workshop on pathways to climate-aware advice (WKCLIMAD). This workshop is exploring how the short-, medium-, and long-term impacts of climate change on aquaculture, fisheries, and ecosystems can be accounted for in ICES advice. This is Part 2 of the first Delphi Survey to identify and rate the likelihood and magantude of climate change forced impacts to fisheries. This topic was explored during the first day of the virtual workshop on September 29th, 2021. You may return to the MIRO board with this link.

You may recall your work looked something like this:
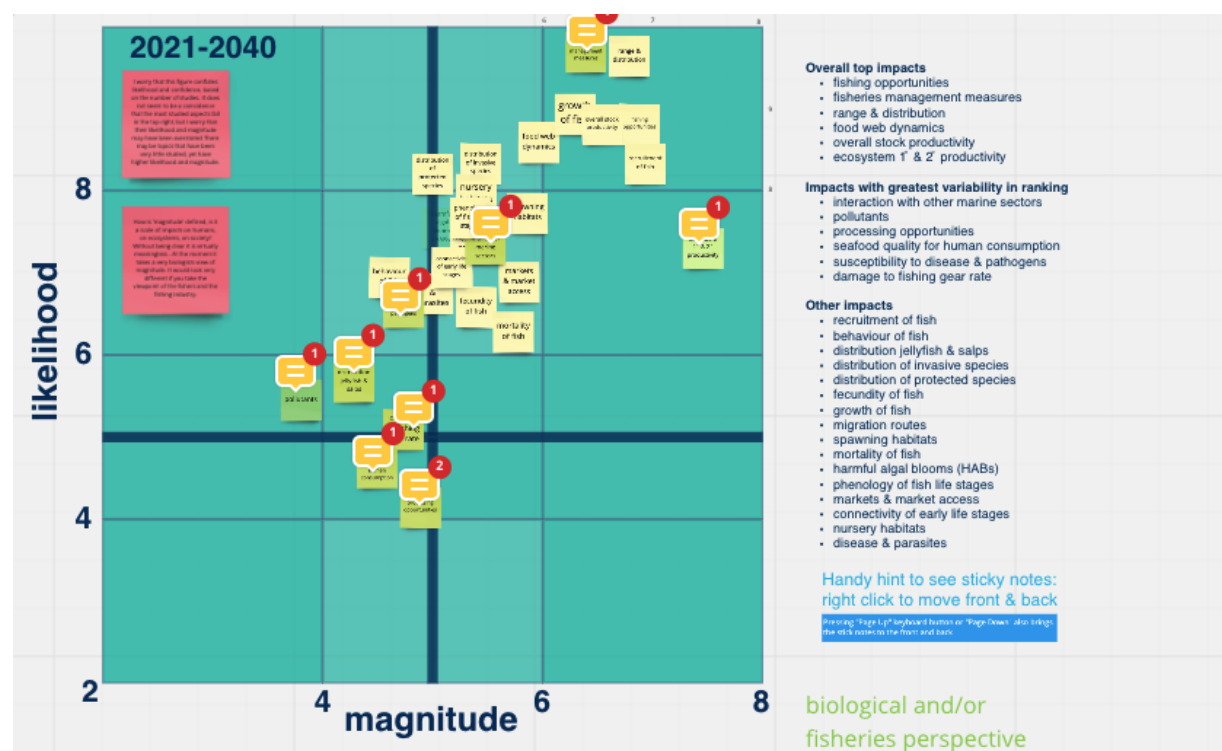
ICES has identified you or your organization, or you have nominated yourself as a stakeholder or knowledge holder in the fields of climate, fisheries, or aquaculture.

Information gathered via this questionnaire is subject to the ICES data privacy statement.

The information provided by you will be used to assist ICES to outline actionable strategies and approaches that can be taken to promote resiliency in fisheries, aquaculture, and ecosystems. This information will be published online and made available to the public. Data will be aggregated so you will not be identifiable; in the event direct quotes are used, these will be identified by an alias/pseudonym.

You may withdraw from the research at any time, without the need to explain, without penalty, and your personal data will be immediately deleted. Anonymized research data will be archived by ICES. All personal data will be deleted 5 years after the WKCLIMAD report is published.

By responding to this survey you acknowledge and consent to your personal data being used as described above.

We expect this survey to take 2 hours to complete. You may save the form and come back to it later using the SAVE button at the bottom. An email will be sent to you with a link that you can use to work on it later.

Email

example@example.com

Name

First Name   Last Name

Fisheries impacts due to Climate Change

Fisheries impacts due to Climate Change

Aquaculture and fisheries are captured on separate forms. These impacts on aquatic organisms and the aquaculture or fisheries system are based on the examples provided from the previous round of homework for WKCLIMAD and during the virtual workshop. Mean ratings from the workshop are given following the impact (mean score) in the first column and/or you may refer to the MIRO board at the link provided for further information related to the group discussions. NOTE: it is not necessary to agree with the mean score, the idea is to record your opinion following the discussion. Assume that climate change continues without mitigation but adaptation does occur. Using your expert judgement, please rate for each impact the likelihood (1 -none to 10 -extremely likely) and magnitude (from 1 -zero to 10 -extreme) separately for the near, middle and far time periods. Also indicate in the confidence column your confidence in your rating. Further information on each impact can be found in the spreadsheet that contains all the submissions, some with examples. Note many of the impacts are overlapping, causally related, or a subset of others. However, each contains a specific context and link to potential advice and most have some published evidence on their impact. Also some will be direct impacts and others indirect impacts. Please consider both direct and indirect impacts in your ratings. Impacts may have negative and/or positive magnitudes (beneficial or harmful). These will vary depending on the specific circumstances of those being impacted (e.g. range shifts, changes in market access). So please rate magnitude by the strength of the impact, not by positive or negative. E.g. for a very beneficial impact, requiring a rating of highest positive magnitude, please rate 10. Likewise for a very harmful impact, requiring a rating of highest negative magnitude, please also rate 10. However, please do provide some separation in levels so not everything is rated 10. Climate drivers can impact in any part of the fisheries and aquaculture socio-ecological system (ecology, fisheries, agronomy, markets, consumption, governance). There are three sheets for likelihood and three for magnitude. These are for 3 timeframes: short (2021-2040), medium (2041-2060) and long term (2061-2100). NOTE: you must rate all impacts. If the impact is out of your area of expertise or you do not know then indicate low confidence in your answer for those impacts. There is space for further comment at the end of the survey and at the end of each row. You may save the form and come back to it later using the SAVE button at the bottom. An email will be sent to you with a link that you can use to work on the rest later.

Please rate on a scale from 1 (unlikely) to 10 (highly likely), the LIKELIHOOD that each of the impacts listed in the first column will occur over the time period from 2021 until 2040, and indicate your confidence in the estimate. *

	1	2	3	4	5	6	7	8	9	10	Confidence	Other Thoughts
Changes in behaviour of fish (Mean Score = 7.25)	○	○	○	○	○	○	○	○	○	○	⌄	
Changes in recruitment of fish (Mean Score=8.50)	○	○	○	○	○	○	○	○	○	○	⌄	
Changes in mortality of fish (Mean Score =6.00)	○	○	○	○	○	○	○	○	○	○	⌄	
Changes to connectivity of early life stages (Mean Score = 7.08)	○	○	○	○	○	○	○	○	○	○	⌄	
Changes in range and distribution (Mean Score = 9.66)	○	○	○	○	○	○	○	○	○	○	⌄	
Changes in fecundity of fish (Mean Score = 7.21)	○	○	○	○	○	○	○	○	○	○	⌄	
Change in damage to fishing gear rate (Mean Score = 4.08)	○	○	○	○	○	○	○	○	○	○	⌄	
Change in food web dynamics (Mean Score = 8.75)	○	○	○	○	○	○	○	○	○	○	⌄	
Changes in distribution of invasive species (Mean Score = 8.46)	○	○	○	○	○	○	○	○	○	○	⌄	
Changes to spawning habitats (Mean Score = 8.00)	○	○	○	○	○	○	○	○	○	○	⌄	

Changes in distribution jellyfish and salps (Mean Score = 7.21)	○	○	○	○	○	○	○	○	○	○	⌄
Change in fishing opportunities (Mean Score = 8.79)	○	○	○	○	○	○	○	○	○	○	⌄
Changes in growth of fish (Mean Score = 8.75)	○	○	○	○	○	○	○	○	○	○	⌄
Changes in migration routes (Mean Score = 7.58)	○	○	○	○	○	○	○	○	○	○	⌄
Change in harmful algal blooms (HABs) (Mean Score = 7.71)	○	○	○	○	○	○	○	○	○	○	⌄
Change in ecosystem 1° and 2° productivity (Mean Score = 8.29)	○	○	○	○	○	○	○	○	○	○	⌄
Change in interaction with other marine sectors (Mean Score = 7.46)	○	○	○	○	○	○	○	○	○	○	⌄
Change in disease and parasites (Mean Score = 6.96)	○	○	○	○	○	○	○	○	○	○	⌄
Change in susceptibility to disease and pathogens (Mean Score = 6.71)	○	○	○	○	○	○	○	○	○	○	⌄
Change in pollutants (Mean Score = 5.50)	○	○	○	○	○	○	○	○	○	○	⌄
Changes in phenology of fish life stages (Mean Score = 7.96)	○	○	○	○	○	○	○	○	○	○	⌄

Change in seafood quality for human consumption (Mean Score = 4.46)	○	○	○	○	○	○	○	○	○	○	⌄	
Changes in distribution of protected species (Mean Score = 8.58)	○	○	○	○	○	○	○	○	○	○	⌄	
Change in fisheries management measures (Mean Score = 7.83)	○	○	○	○	○	○	○	○	○	○	⌄	
Change in markets and market access (Mean Score = 6.92)	○	○	○	○	○	○	○	○	○	○	⌄	
Changes in processing opportunities (Mean Score = 4.08)	○	○	○	○	○	○	○	○	○	○	⌄	
Changes to nursery habitats (Mean Score =8.25)	○	○	○	○	○	○	○	○	○	○	⌄	
Changes in overall stock productivity (Mean Score = 8.46)	○	○	○	○	○	○	○	○	○	○	⌄	

Please rate on a scale from 1 (unlikely) to 10 (highly likely), the LIKELIHOOD that each of the impacts listed in the first column will occur over the time period from 2041-2060, and indicate your confidence in the estimate. *

	1	2	3	4	5	6	7	8	9	10	Confidence	Other Thoughts
Changes in fecundity of fish (Mean Score = 7.21)	○	○	○	○	○	○	○	○	○	○	⌄	
Changes in growth of fish (Mean Score = 8.75)	○	○	○	○	○	○	○	○	○	○	⌄	
Changes in mortality of fish (Mean Score =6.00)	○	○	○	○	○	○	○	○	○	○	⌄	

Changes in behaviour of fish (Mean Score = 7.25)	○	○	○	○	○	○	○	○	○	○	⌄	
Changes in processing opportunities (Mean Score = 4.08)	○	○	○	○	○	○	○	○	○	○	⌄	
Changes in migration routes (Mean Score = 7.58)	○	○	○	○	○	○	○	○	○	○	⌄	
Change in fishing opportunities (Mean Score = 8.79)	○	○	○	○	○	○	○	○	○	○	⌄	
Change in damage to fishing gear rate (Mean Score = 4.08)	○	○	○	○	○	○	○	○	○	○	⌄	
Change in fisheries management measures (Mean Score = 7.83)	○	○	○	○	○	○	○	○	○	○	⌄	
Change in markets and market access (Mean Score = 6.92)	○	○	○	○	○	○	○	○	○	○	⌄	
Changes in overall stock productivity (Mean Score = 8.46)	○	○	○	○	○	○	○	○	○	○	⌄	
Change in susceptibility to disease and pathogens (Mean Score = 6.71)	○	○	○	○	○	○	○	○	○	○	⌄	
Changes to connectivity of early life stages (Mean Score = 7.08)	○	○	○	○	○	○	○	○	○	○	⌄	
Change in seafood quality for human consumption (Mean	○	○	○	○	○	○	○	○	○	○	⌄	

Score = 4.46)												
Change in ecosystem 1° and 2° productivity (Mean Score = 8.29)	○	○	○	○	○	○	○	○	○	○	⌄	
Changes to spawning habitats (Mean Score = 8.00)	○	○	○	○	○	○	○	○	○	○	⌄	
Changes in distribution of protected species (Mean Score = 8.58)	○	○	○	○	○	○	○	○	○	○	⌄	
Changes to nursery habitats (Mean Score =8.25)	○	○	○	○	○	○	○	○	○	○	⌄	
Changes in distribution jellyfish and salps (Mean Score = 7.21)	○	○	○	○	○	○	○	○	○	○	⌄	
Changes in range and distribution (Mean Score = 9.66)	○	○	○	○	○	○	○	○	○	○	⌄	
Changes in phenology of fish life stages (Mean Score = 7.96)	○	○	○	○	○	○	○	○	○	○	⌄	
Change in pollutants (Mean Score = 5.50)	○	○	○	○	○	○	○	○	○	○	⌄	
Change in interaction with other marine sectors (Mean Score = 7.46)	○	○	○	○	○	○	○	○	○	○	⌄	
Change in disease and parasites (Mean Score = 6.96)	○	○	○	○	○	○	○	○	○	○	⌄	
Change in food web dynamics (Mean Score = 8.75)	○	○	○	○	○	○	○	○	○	○	⌄	
Change in harmful algal blooms												

	1	2	3	4	5	6	7	8	9	10		
algal blooms (HABs) (Mean Score = 7.71)	○	○	○	○	○	○	○	○	○	○	⌄	
Changes in distribution of invasive species (Mean Score = 8.46)	○	○	○	○	○	○	○	○	○	○	⌄	
Changes in recruitment of fish (Mean Score=8.50)	○	○	○	○	○	○	○	○	○	○	⌄	

Please rate on a scale from 1 (unlikely) to 10 (highly likely), the LIKELIHOOD that each of the impacts listed in the first column will occur over the time period from 2061-2100, and indicate your confidence in the estimate. *

	1	2	3	4	5	6	7	8	9	10	Confidence	Other Thoughts
Changes to spawning habitats (Mean Score = 8.00)	○	○	○	○	○	○	○	○	○	○	⌄	
Changes in processing opportunities (Mean Score = 4.08)	○	○	○	○	○	○	○	○	○	○	⌄	
Changes to nursery habitats (Mean Score =8.25)	○	○	○	○	○	○	○	○	○	○	⌄	
Changes in distribution of invasive species (Mean Score = 8.46)	○	○	○	○	○	○	○	○	○	○	⌄	
Changes in behaviour of fish (Mean Score = 7.25)	○	○	○	○	○	○	○	○	○	○	⌄	
Changes in growth of fish (Mean Score = 8.75)	○	○	○	○	○	○	○	○	○	○	⌄	
Change in markets and market access (Mean Score = 6.92)	○	○	○	○	○	○	○	○	○	○	⌄	

Change in ecosystem 1° and 2° productivity (Mean Score = 8.29)	○	○	○	○	○	○	○	○	○	○	⌄	
Change in fisheries management measures (Mean Score = 7.83)	○	○	○	○	○	○	○	○	○	○	⌄	
Changes in phenology of fish life stages (Mean Score = 7.96)	○	○	○	○	○	○	○	○	○	○	⌄	
Change in disease and parasites (Mean Score = 6.96)	○	○	○	○	○	○	○	○	○	○	⌄	
Changes in fecundity of fish (Mean Score = 7.21)	○	○	○	○	○	○	○	○	○	○	⌄	
Changes in range and distribution (Mean Score = 9.66)	○	○	○	○	○	○	○	○	○	○	⌄	
Changes in migration routes (Mean Score = 7.58)	○	○	○	○	○	○	○	○	○	○	⌄	
Changes in recruitment of fish (Mean Score=8.50)	○	○	○	○	○	○	○	○	○	○	⌄	
Change in seafood quality for human consumption (Mean Score = 4.46)	○	○	○	○	○	○	○	○	○	○	⌄	
Change in interaction with other marine sectors (Mean Score = 7.46)	○	○	○	○	○	○	○	○	○	○	⌄	
Change in susceptibility to disease and pathogens (Mean Score = 6.71)	○	○	○	○	○	○	○	○	○	○	⌄	

Changes in overall

	1	2	3	4	5	6	7	8	9	10	Confidence	Other Thoughts
Changes in overall stock productivity (Mean Score = 8.46)	○	○	○	○	○	○	○	○	○	○	⌄	
Change in fishing opportunities (Mean Score = 8.79)	○	○	○	○	○	○	○	○	○	○	⌄	
Changes in mortality of fish (Mean Score =6.00)	○	○	○	○	○	○	○	○	○	○	⌄	
Changes in distribution jellyfish and salps (Mean Score = 7.21)	○	○	○	○	○	○	○	○	○	○	⌄	
Changes in distribution of protected species (Mean Score = 8.58)	○	○	○	○	○	○	○	○	○	○	⌄	
Change in pollutants (Mean Score = 5.50)	○	○	○	○	○	○	○	○	○	○	⌄	
Change in harmful algal blooms (HABs) (Mean Score = 7.71)	○	○	○	○	○	○	○	○	○	○	⌄	
Change in food web dynamics (Mean Score = 8.75)	○	○	○	○	○	○	○	○	○	○	⌄	
Change in damage to fishing gear rate (Mean Score = 4.08)	○	○	○	○	○	○	○	○	○	○	⌄	
Changes to connectivity of early life stages (Mean Score = 7.08)	○	○	○	○	○	○	○	○	○	○	⌄	

Please rate on a scale from 1 (none) to 10 (extreme), the MAGNITUDE that each of the impacts listed in the first column will will have on the fishing industry over the time period from 2021 until 2040, and indicate your confidence in your estimate *

	1	2	3	4	5	6	7	8	9	10	Confidence	Other Thoughts

Change in seafood quality for human consumption (Mean Score = 4.33)	○	○	○	○	○	○	○	○	○	○	⌄
Change in damage to fishing gear rate (Mean Score = 4.00)	○	○	○	○	○	○	○	○	○	○	⌄
Changes in behaviour of fish (Mean Score = 5.21)	○	○	○	○	○	○	○	○	○	○	⌄
Changes to spawning habitats (Mean Score =5.79)	○	○	○	○	○	○	○	○	○	○	⌄
Changes in distribution jellyfish and salps (Mean Score = 5.21)	○	○	○	○	○	○	○	○	○	○	⌄
Changes in mortality of fish (Mean Score = 5.96)	○	○	○	○	○	○	○	○	○	○	⌄
Changes in distribution of protected species (Mean Score = 5.33)	○	○	○	○	○	○	○	○	○	○	⌄
Changes in processing opportunities (Mean Score = 5.00)	○	○	○	○	○	○	○	○	○	○	⌄
Changes in range and distribution (Mean Score = 6.79)	○	○	○	○	○	○	○	○	○	○	⌄
Changes to nursery habitats (Mean Score = 5.67)	○	○	○	○	○	○	○	○	○	○	⌄
Changes in distribution of invasive species (Mean Score = 5.46)	○	○	○	○	○	○	○	○	○	○	⌄

Change in harmful algal blooms (HABs) (Mean Score = 5.21)	○	○	○	○	○	○	○	○	○	○	⌄	
Changes in overall stock productivity (Mean Score = 6.83)	○	○	○	○	○	○	○	○	○	○	⌄	
Changes to connectivity of early life stages (Mean Score = 5.46)	○	○	○	○	○	○	○	○	○	○	⌄	
Changes in fecundity of fish (Mean Score = 5.67)	○	○	○	○	○	○	○	○	○	○	⌄	
Change in fisheries management measures (Mean Score = 6.42)	○	○	○	○	○	○	○	○	○	○	⌄	
Change in fishing opportunities (Mean Score = 6.92)	○	○	○	○	○	○	○	○	○	○	⌄	
Change in susceptibility to disease and pathogens (Mean Score = 5.29)	○	○	○	○	○	○	○	○	○	○	⌄	
Changes in phenology of fish life stages (Mean Score = 6.29)	○	○	○	○	○	○	○	○	○	○	⌄	
Changes in migration routes (Mean Score =5.33)	○	○	○	○	○	○	○	○	○	○	⌄	
Change in pollutants (Mean Score = 3.88)	○	○	○	○	○	○	○	○	○	○	⌄	
Changes in growth of fish (Mean Score = 6.08)	○	○	○	○	○	○	○	○	○	○	⌄	
Change in												

	1	2	3	4	5	6	7	8	9	10	Confidence	Other Thoughts
interaction with other marine sectors (Mean Score = 5.08)	○	○	○	○	○	○	○	○	○	○	⌄	
Change in ecosystem 1° and 2° productivity (Mean Score = 6.63)	○	○	○	○	○	○	○	○	○	○	⌄	
Change in disease and parasites (Mean Score = 5.38)	○	○	○	○	○	○	○	○	○	○	⌄	
Change in food web dynamics (Mean Score = 6.25)	○	○	○	○	○	○	○	○	○	○	⌄	
Changes in recruitment of fish (Mean Score = 6.79)	○	○	○	○	○	○	○	○	○	○	⌄	
Change in markets and market access (Mean Score = 5.67)	○	○	○	○	○	○	○	○	○	○	⌄	

Please rate on a scale from 1 (none) to 10 (extreme), the MAGNITUDE that each of the impacts listed in the first column will will have on the fishing industry over the time period from 2041 until 2060, and indicate your confidence in your estimate *

	1	2	3	4	5	6	7	8	9	10	Confidence	Other Thoughts
Change in interaction with other marine sectors (Mean Score = 5.08)	○	○	○	○	○	○	○	○	○	○	⌄	
Changes in distribution jellyfish and salps (Mean Score = 5.21)	○	○	○	○	○	○	○	○	○	○	⌄	
Changes in mortality of fish (Mean Score = 5.96)	○	○	○	○	○	○	○	○	○	○	⌄	
Changes in overall stock productivity (Mean Score = 6.83)	○	○	○	○	○	○	○	○	○	○	⌄	

Changes in behaviour of fish (Mean Score = 5.21)	○	○	○	○	○	○	○	○	○	○	⌄
Change in pollutants (Mean Score = 3.88)	○	○	○	○	○	○	○	○	○	○	⌄
Changes in phenology of fish life stages (Mean Score = 6.29)	○	○	○	○	○	○	○	○	○	○	⌄
Changes in growth of fish (Mean Score = 6.08)	○	○	○	○	○	○	○	○	○	○	⌄
Changes to spawning habitats (Mean Score =5.79)	○	○	○	○	○	○	○	○	○	○	⌄
Changes in distribution of protected species (Mean Score = 5.33)	○	○	○	○	○	○	○	○	○	○	⌄
Change in fisheries management measures (Mean Score = 6.42)	○	○	○	○	○	○	○	○	○	○	⌄
Changes in recruitment of fish (Mean Score = 6.79)	○	○	○	○	○	○	○	○	○	○	⌄
Changes to nursery habitats (Mean Score = 5.67)	○	○	○	○	○	○	○	○	○	○	⌄
Changes to connectivity of early life stages (Mean Score = 5.46)	○	○	○	○	○	○	○	○	○	○	⌄
Change in susceptibility to disease and pathogens (Mean Score = 5.29)	○	○	○	○	○	○	○	○	○	○	⌄

Change in fishing

Change in fishing opportunities (Mean Score = 6.92)	○	○	○	○	○	○	○	○	○	○	⌄	
Change in seafood quality for human consumption (Mean Score = 4.33)	○	○	○	○	○	○	○	○	○	○	⌄	
Change in damage to fishing gear rate (Mean Score = 4.00)	○	○	○	○	○	○	○	○	○	○	⌄	
Change in food web dynamics (Mean Score = 6.25)	○	○	○	○	○	○	○	○	○	○	⌄	
Changes in range and distribution (Mean Score = 6.79)	○	○	○	○	○	○	○	○	○	○	⌄	
Change in markets and market access (Mean Score = 5.67)	○	○	○	○	○	○	○	○	○	○	⌄	
Change in harmful algal blooms (HABs) (Mean Score = 5.21)	○	○	○	○	○	○	○	○	○	○	⌄	
Change in disease and parasites (Mean Score = 5.38)	○	○	○	○	○	○	○	○	○	○	⌄	
Change in ecosystem 1° and 2° productivity (Mean Score = 6.63)	○	○	○	○	○	○	○	○	○	○	⌄	
Changes in distribution of invasive species (Mean Score = 5.46)	○	○	○	○	○	○	○	○	○	○	⌄	
Changes in fecundity of fish (Mean Score = 5.67)	○	○	○	○	○	○	○	○	○	○	⌄	
Changes in migration routes (Mean Score =5.33)	○	○	○	○	○	○	○	○	○	○	⌄	

	1	2	3	4	5	6	7	8	9	10	Confidence	Other Thoughts
Changes in processing opportunities (Mean Score = 5.00)	○	○	○	○	○	○	○	○	○	○	▼	

Please rate on a scale from 1 (none) to 10 (extreme), the MAGNITUDE that each of the impacts listed in the first column will will have on the fishing industry in the time period from 2061-2100, and indicate your confidence in your estimate *

	1	2	3	4	5	6	7	8	9	10	Confidence	Other Thoughts
Changes in range and distribution (Mean Score = 6.79)	○	○	○	○	○	○	○	○	○	○	▼	
Changes in recruitment of fish (Mean Score = 6.79)	○	○	○	○	○	○	○	○	○	○	▼	
Change in seafood quality for human consumption (Mean Score = 4.33)	○	○	○	○	○	○	○	○	○	○	▼	
Changes in processing opportunities (Mean Score = 5.00)	○	○	○	○	○	○	○	○	○	○	▼	
Changes in phenology of fish life stages (Mean Score = 6.29)	○	○	○	○	○	○	○	○	○	○	▼	
Change in fisheries management measures (Mean Score = 6.42)	○	○	○	○	○	○	○	○	○	○	▼	
Changes in mortality of fish (Mean Score = 5.96)	○	○	○	○	○	○	○	○	○	○	▼	
Change in damage to fishing gear rate (Mean Score = 4.00)	○	○	○	○	○	○	○	○	○	○	▼	

Change in markets and market access (Mean Score = 5.67)	○	○	○	○	○	○	○	○	○		⌄	
Changes in distribution of invasive species (Mean Score = 5.46)	○	○	○	○	○	○	○	○	○	○	⌄	
Changes to connectivity of early life stages (Mean Score = 5.46)	○	○	○	○	○	○	○	○	○	○	⌄	
Change in pollutants (Mean Score = 3.88)	○	○	○	○	○	○	○	○	○	○	⌄	
Changes in behaviour of fish (Mean Score = 5.21)	○	○	○	○	○	○	○	○	○	○	⌄	
Changes in overall stock productivity (Mean Score = 6.83)	○	○	○	○	○	○	○	○	○	○	⌄	
Changes to nursery habitats (Mean Score = 5.67)	○	○	○	○	○	○	○	○	○	○	⌄	
Change in interaction with other marine sectors (Mean Score = 5.08)	○	○	○	○	○	○	○	○	○	○	⌄	
Changes in migration routes (Mean Score =5.33)	○	○	○	○	○	○	○	○	○	○	⌄	
Change in fishing opportunities (Mean Score = 6.92)	○	○	○	○	○	○	○	○	○	○	⌄	
Change in harmful algal blooms (HABs) (Mean Score = 5.21)	○	○	○	○	○	○	○	○	○	○	⌄	
Change in susceptibility to disease and	○	○	○	○	○	○	○	○	○	○	⌄	

pathogens (Mean Score = 5.29)	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯		
Change in food web dynamics (Mean Score = 6.25)	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	⌄	
Change in ecosystem 1° and 2° productivity (Mean Score = 6.63)	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	⌄	
Changes in fecundity of fish (Mean Score = 5.67)	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	⌄	
Changes in growth of fish (Mean Score = 6.08)	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	⌄	
Changes to spawning habitats (Mean Score =5.79)	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	⌄	
Changes in distribution jellyfish and salps (Mean Score = 5.21)	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	⌄	
Changes in distribution of protected species (Mean Score = 5.33)	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	⌄	
Change in disease and parasites (Mean Score = 5.38)	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	⌄	

Please add any impacts we might have missed or make any comments below:

Type here...

You may save the form and come back to it later using the SAVE button at the bottom. An email will be sent to

you with a link that you can use to work on the rest later.