



North Pacific Fisheries Commission

NPFC-2025-SC10-OP03

Observer Paper Submitted by The Pew Charitable Trusts

An Overview of Recent Progress by Selected RFMOs Towards Climate-Informed Governance

To support the Scientific Committee's discussion on climate change (Agenda Item 7), Pew has prepared a review of recent steps taken by five of the general RFMOs (GFCM, NEAFC, NPFC, SIOFA, and SPRFMO), as well as the five tuna RFMOs (CCSBT, IATTC, ICCAT, IOTC, and WCPFC), to systematically integrate climate change considerations into their governance structure.

As Members act on NPFC's [Resolution on Climate Change](#), build on the good progress made to include climate change in the SC's Five-Year Research Plan and Workplan, and continue to cooperate on climate change with PICES alongside capacity building efforts with the FAO and BECI, Pew recommends that the SC:

- **Develop a dedicated and more detailed work plan, indicative of timelines, to integrate climate change considerations in NPFC scientific processes and develop climate-informed management approaches for NPFC species.** This climate work plan should consider relevant tools and frameworks to promote climate-resilient fisheries, including the use of management strategy evaluation and management procedures. The approach taken in the IATTC Climate change workplan ([SAC-15-12](#)) can serve as a helpful reference in this regard.
- **Evaluate data requirements for climate-related monitoring as part of ecosystem-based fisheries management (EBFM) implementation.** This consideration should include evaluation of the potential added value of comprehensive ocean observation systems, an increase in surveillance for the monitoring of fish stocks and bycatch species including further development of fisheries-independent surveys, and robust fisheries-dependent data programming including through a regional observer program. The recommendations from [NPFC-2024-SC09-OP01](#) can serve as a helpful resource in this regard.
- **Cooperate with other relevant RFMOs in the Pacific Ocean and intergovernmental scientific organizations (i.e., PICES, ISC) regarding climate-ready management approaches, research, and advice for transboundary species whose distribution or migrations are likely to be affected by climate change.**

An overview of recent progress by selected Regional Fisheries Management Organizations (RFMOs) towards climate-informed governance

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According to the United Nations' Intergovernmental Panel on Climate Change (IPCC), anthropogenic climate change has already “exposed ocean (...) ecosystems to conditions that are unprecedented over millennia,” impacting life in the ocean and affecting commercial, small-scale, artisanal and recreational fishing activities (IPCC 2023). With oceans “virtually certain” to continue diverging from pre-industrial conditions, attendant impacts to marine life are expected to escalate (IPCC 2023).

These climate-induced oceanographic changes in turn have substantial implications for fish stocks managed by regional fisheries management organizations (RFMOs), including significant losses in fish biomass production and changes in the geographic distribution of fish stocks (Blanchard and Novaglio, 2024; Palacios-Abrantes et al., 2025). RFMOs, as the intergovernmental bodies responsible for managing many of the world's most valuable commercial fish stocks and other highly migratory species, are faced with the challenge of understanding the impacts of climate change on their fisheries, and to determine measures to adapt their management measures accordingly.

Here, we present an overview of recent steps taken by five of the general RFMOs (GFCM, NEAFC, NPFC, SIOFA, and SPRFMO), as well as the five tuna RFMOs (CCSBT, IATTC, ICCAT, IOTC, and WCPFC), to systematically integrate climate change considerations into their governance structure, as summarized in Table 1 below:

Table 1. Climate change actions at selected general and tuna RFMOs:

RFMO	Actions					
	Standing Agenda Item	Resolution or Commission Decision (e.g. CMM)	Performance Review Recommendation(s)	Working Group, Task Team, or Experts' Meeting	SC or Commission Strategy, Workplan or Action Plan	Additional initiatives incl. collaborations
<i>General</i>						
GFCM						
NEAFC						
NPFC						
SIOFA						
SPRFMO						
<i>Tuna</i>						
CCSBT						
IATTC						
ICCAT						
IOTC						
WCPFC						

	Not underway		Underway/completed
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As shown in Table 1, efforts across the general and tuna RFMOs to address climate change impacts in their work show some consistency across regional bodies, as well as divergences. As of early November 2025, nearly all of the RFMOs considered had adopted climate change as a standing agenda item at either or both of their Commission or Scientific Committee meetings. Similarly, a majority of the RFMOs considered, 7 out of 10, have passed Resolutions or Commission Decisions on climate change—a high level acknowledgement that the issue requires dedicated attention and resources in their Convention Areas. Notably, 4 out of 10 Performance Reviews for the RFMOs have included recommendations for improved consideration of climate change impacts, primarily in the general RFMOs with some limited inclusion in the tuna RFMOs, as well.

While many RFMOs have made higher-level commitments to addressing climate change in their meeting agendas and through the adoption of dedicated Resolutions and Commissions Decisions, a smaller set have dedicated capacity and resources to carry out the work required to operationalize climate-informed fisheries management in their Convention Area. In terms of dedicated capacity, GFCM, SPRFMO, IATTC and ICCAT have taken the additional steps of hosting experts' meetings or formalizing a climate change working group or task team to advance the work. Notably, [GFCM](#) is undertaking climate vulnerability assessments as part of an overarching strategy; [IATTC](#), [SPRFMO](#) and [WCPFC](#) have developed work plans and [NPFC](#) has integrated climate analyses into research and work plans; and [ICCAT](#) has adopted a climate change-specific Action Plan. Independently of a broader work/action plan or strategy, [SIOFA](#) has commissioned a climate vulnerability assessment expected in 2026, and [WCPFC's](#) SC in 2025 considered a framework for a climate vulnerability assessment. Further information on these initiatives is available in the Background section, below.

As the impacts of climate change continue to unfold in the world's oceans and fisheries in the coming decades, the need for RFMOs to account for these impacts will only increase. Many general and tuna RFMOs are already making progress through their respective Resolutions and Commission Decisions, dedicated agenda time, issue-specific working groups and task teams, expert convenings, and the development and implementation of workplans to support climate adaptation for their fisheries. As RFMOs continue this important work, it will also be increasingly important for RFMOs to coordinate and collaborate in their climate adaptation efforts and learn from one another. To that end, we hope that this compilation of progress to date can support cross-RFMO understanding, momentum, and collaboration on this important issue.

Background: Climate change actions at selected general and tuna RFMOs:

General RFMOs:

General Fisheries Commission for the Mediterranean (GFCM):

(i) Standing agenda item on climate change: Yes, the Scientific Advisory Committee provides annual presentations on climate change and work undertaken to address it.

(ii) Resolution or Commission Decision: None.

(iii) Performance Review Recommendations that Address Climate Change: The [2011 Performance Review](#) did not include climate-specific recommendations, while the [2019 Performance Review](#) was not publicly available at the time of the writing of this paper.

(iv) Working Group, Task Team, or Experts' Meeting: In 2017, GFCM hosted an [experts meeting](#) on climate change implications for the Mediterranean and black sea fisheries. Agreement was reached on the need to enhance knowledge on the implications of climate change to fisheries in the region and to identify options to cope with the expected impacts. In 2025, GFCM held a climate change workshop and

established the regional GFCM Network of Experts on Fisheries and Climate Change, which will advance the integration of climate aspects into GFCM scientific advice with a pilot focused on European sprat (*Sprattus sprattus*).

(v) SC or Commission Strategy, Workplan or Action Plan: The [GFCM 2030 Strategy](#) outputs include the implementation of an adaptation strategy to address the potential effect of climate change. This includes developing impact indicators and conducting a full assessment of the socio-economic impacts of climate change on the fisheries sector, with a view to formulating future adaptation measures, contingency plans and management plans. Assessments are underway to determine vulnerability of fisheries through subregional case studies. GFCM is also developing a regional adaptation strategy for climate change and non-indigenous species.

(vi) Additional initiatives including collaborations: The GFCM undertakes efforts to [investigate how climate change affects](#) marine habitats and ecosystems, focusing especially on fisheries and living marine resources and including links between climate change and non-indigenous species, and seeks to develop effective adaptation strategies for inclusion in fisheries management.

North-East Atlantic Fisheries Commission (NEAFC):

(i) Standing agenda item on climate change: Yes, established in PECMAS through the 2023 resolution.

(ii) Resolution or Commission Decision: Adopted a [2023 resolution](#) on climate change considerations for the attention of the NEAFC Permanent Committee on Management and Science.

(iii) Performance Review Recommendations that Address Climate Change: In 2014, the [report of the Performance Review Panel](#) noted that “many of the species regulated by NEAFC appear to be sensitive to climate effects, not only in recruitment variability but species distributions and species overlaps. For example, controversies regarding changing spatial distributions of migratory species stem in part from fishes’ responses to climate variations. Understanding if these distribution shifts are permanent or periodic is central to the development of equitable allocation keys” (p. 39). The panel recommended that “climate effects be considered more explicitly in developing its management programme and that the scientific basis for such considerations be improved” (p.40).

(iv) Working Group, Task Team, or Experts’ Meeting: None.

(v) SC or Commission Strategy, Workplan or Action Plan: None.

(vi) Additional initiatives including collaborations: In 2024, the FAO Common Oceans Deep Sea Fisheries Project produced [a report](#) on the Incorporation of climate change into the work of the NEAFC. This report includes a roadmap with recommended actions for the inclusion of climate change impacts in the work of NEAFC to support the implementation of the Climate Change Resolution. The recommended actions of this roadmap have not been taken on board by NEAFC Parties so far.

North Pacific Fisheries Commission (NPFC):

(i) Standing agenda item on climate change: Yes, as established in the 2022 Resolution on Climate Change.

(ii) Resolution or Commission Decision: In 2022, NPFC adopted their [Resolution on Climate Change](#) to consider the potential impacts of climate change and make it a standing agenda item for all NPFC meetings.

(iii) Performance Review Recommendations that Address Climate Change: As part of its [2022 Performance Review](#), the Commission is working towards fulfilling those recommendations, including recommendations 4.5.4 and 4.5.5, to better address climate impacts on NPFC’s fisheries and marine ecosystem.

(iv) Working Group, Task Team, or Experts’ Meeting: NPFC does not have a dedicated working group or

small scientific committee to address climate change related issues. However, climate change is part of the Scientific Committee's workplan and is addressed by the subsidiary bodies and their respective agendas.

(v) SC or Commission Strategy, Workplan or Action Plan: The SC has been tasked to identify relevant data availability/needs and has integrated climate change analyses into its [Five-Year Research Plan and Work Plan](#).

(vi) Additional initiatives including collaborations: NPFC has identified climate change as a priority goal for formal cooperation with the [North Pacific Marine Science Organization](#) (PICES). Informally, the NPFC continues to support climate-related capacity building efforts through the [FAO Common Oceans Deep-Sea Fisheries Project](#) and the [Basin-scale Events and Coastal Impacts \(BECI\) Project](#).

[Southern Indian Ocean Fisheries Agreement \(SIOFA\):](#)

(i) Standing agenda item on climate change: Yes, climate change is a standing agenda item at meetings of the Parties and the SC.

(ii) Resolution or Commission Decision: None.

(iii) Performance Review Recommendations that Address Climate Change: None.

(iv) Working Group, Task Team, or Experts' Meeting: None.

(v) SC or Commission Strategy, Workplan or Action Plan: None.

(vi) Additional initiatives including collaborations: SIOFA has commissioned a climate vulnerability assessment, similar to the WCPFC assessment. The vulnerability assessment for SIOFA species and ecosystems is due to be completed in June 2026.

[South Pacific Regional Fisheries Management Organisation \(SPRFMO\):](#)

(i) Standing agenda item on climate change: Yes, as established in the Commission Decision on climate change.

(ii) Resolution or Commission Decision: Adopted Commission Decision 13-2023 to include climate change as a permanent agenda item.

(iii) Performance Review Recommendations that Address Climate Change: The 2024 report of the 2nd Performance Review of SPRFMO recommended the Commission facilitate "an annual strategic discussion aimed at producing a Statement of Intent that outlines where the Commission wants to be in 5 to 10 years and signals how it intends to get there. This should include how the Commission plans to address emerging issues such as climate change and BBNJ, among others."

(iv) Working Group, Task Team, or Experts' Meeting: The Climate Change Task Team is now underway.

(v) SC or Commission Strategy, Workplan or Action Plan: The workplan of the Climate Change Task Team ([appended to this report](#)) includes activities to integrate climate change into management strategy evaluation and species distribution models. Climate change-related activities are also integrated within the Scientific Committee's workplan.

(vi) Additional initiatives including collaborations: None underway.

[Tuna RFMOs:](#)

[Commission for the Conservation of Southern Bluefin Tuna \(CCSBT\):](#)

(i) Standing agenda item on climate change: Yes, in 2024 the SC agreed to add climate change as a standing agenda item at SC meetings.

(ii) Resolution or Commission Decision: None.

(iii) Performance Review Recommendations that Address Climate Change: Recognized climate change as priority item in the 2021 performance review of CCSBT. Impact of climate change on SBT was also noted

in the 2014 Performance Review.

(iv) Working Group, Task Team, or Experts' Meeting: None.

(v) SC or Commission Strategy, Workplan or Action Plan: None.

(vi) Additional initiatives including collaborations: None underway.

Inter-American Tropical Tuna Commission (IATTC):

(i) Standing agenda item on climate change: Yes, as in Resolution 23-10.

(ii) Resolution or Commission Decision: Adopted Resolution 23-10 to include climate change as an agenda item at the scientific and Commission meetings.

(iii) Performance Review Recommendations that Address Climate Change: The [2016 Performance Review](#) references the importance of the Early Life History program and Achotines Laboratory's work as essential to future climate work, but does not provide specific recommendations to that end.

(iv) Working Group, Task Team, or Experts' Meeting: The IATTC staff held several meetings for members in 2025 to inform development of a climate change workplan and included presentations from external experts.

(v) SC or Commission Strategy, Workplan or Action Plan: The [Climate Change Workplan](#) is an evolving document and aims to develop climate-resilient fisheries in the eastern Pacific ocean. Its framework includes assessing impacts, identifying adaptation actions, and monitoring their effectiveness. It was presented to the Commission in 2025 as part of the overall strategic science plan.

(vi) Additional initiatives including collaborations: None underway.

International Commission for the Conservation of Atlantic Tunas (ICCAT):

(i) Standing agenda item on climate change: Yes, as established in the climate change action plan.

(ii) Resolution or Commission Decision: In 2023, ICCAT adopted Resolution [22-13](#) to initiate climate work through a joint experts meeting and develop a Commission workplan.

(iii) Performance Review Recommendations that Address Climate Change: None. ICCAT's [2009](#) and [2016](#) Performance Reviews do not explicitly include climate change in the recommendations or analytical text.

(iv) Working Group, Task Team, or Experts' Meeting: In 2024, ICCAT held its [first Joint Experts' Meeting](#) on climate change.

(v) SC or Commission Strategy, Workplan or Action Plan: At the 2024 Commission meeting, ICCAT adopted a [climate change action plan](#) that directs the Commission and Scientific Committee to integrate climate considerations into management advice. The plan also establishes ongoing dialogue between scientists and managers and keeps climate change as a regular agenda item to ensure decisions reflect current science.

(vi) Additional initiatives including collaborations: ICCAT is currently developing multiple management strategy evaluation (MSE) tested management procedures (MPs) that incorporate climate change robustness testing. A [paper](#) discussed at ICCAT reviews the research on climate change impacts on pelagic fish species and links these to operating model dynamics for multiple of species of highly migratory tunas, sharks and billfish to test the robustness of various MPs.

Indian Ocean Tuna Commission (IOTC):

(i) Standing agenda item on climate change: Yes, agreed in 2023 for all science WG meetings.

(ii) Resolution or Commission Decision: Adopted Resolution 22-01 (updated in 2024 and again in 2025) to further climate research and capacity building. The resolution requires a dedicated IOTC webpage on

climate change and its impacts on IOTC fisheries.

(iii) Performance Review Recommendations that Address Climate Change: None.

(iv) Working Group, Task Team, or Experts' Meeting: None.

(v) SC or Commission Strategy, Workplan or Action Plan: None.

(vi) Additional initiatives including collaborations: None underway.

Western and Central Pacific Fisheries Commission (WCPFC):

(i) Standing agenda item on climate change: Yes, agreed to at the Commission in 2022.

(ii) Resolution or Commission Decision: Adopted Resolution 2019-01 to consider climate change impacts and support further research.

(iii) Performance Review Recommendations that Address Climate Change: The 2012 review recommended that the SC must review the interactions between climate and environmental factors and the target and non-target species.

(iv) Working Group, Task Team, or Experts' Meeting: None.

(v) SC or Commission Strategy, Workplan or Action Plan: The Commission in 2024 adopted a climate change workplan to develop information and address impacts on western and central Pacific fisheries, including through the consideration of climate change in stock assessment and management strategy evaluation and incorporation of monitoring 'report cards.' The scientific services provider has presented information on the impact of climate change on WCPFC stocks since 2018.

(vi) Additional initiatives including collaborations: An effort is ongoing to develop an assessment of the vulnerability of WCPFC conservation and management measures to the effects of climate change. The Commission made a list of initial measures to be assessed. A framework for the assessment ([WCPFC Climate Change Vulnerability Assessment \(CCVA\) Framework](#)) was presented to the Scientific Committee in 2025 and will be further refined.

References

Blanchard, J.L. & Novaglio, C., eds. 2024. Climate change risks to marine ecosystems and fisheries Projections to 2100 from the Fisheries and Marine Ecosystem Model Intercomparison Project. FAO Fisheries and Aquaculture Technical Paper, No. 707. Rome, FAO. <https://doi.org/10.4060/cd1379en>.

Intergovernmental Panel On Climate Change (IPCC). 2023. *Climate Change 2022 – Impacts, Adaptation and Vulnerability: Working Group II Contribution to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change*. 1st ed. Cambridge University Press. <https://doi.org/10.1017/9781009325844>.

Palacios-Abrantes, Juliano, Bianca S Santos, Thomas L Frölicher, et al. 2025. "Climate Change Drives Shifts in Straddling Fish Stocks in the World's Ocean." *Science Advances*. <https://doi.org/10.1126/sciadv.adq5976>.