INTER-AMERICAN TROPICAL TUNA COMMISSION

1ST WORKSHOP ON CLIMATE CHANGE

(by video conference)
24-26 February 2025

WORKSHOP REPORT

This document provides a report on the 1st Climate Change Workshop – focused on discussing and defining, the proposed climate change workplan's main goal, scoping, and framework – held virtually from February 24 to 26, 2025. The purpose of the workshop was to begin Phases 2 and 3 in the proposed climate change workplan (SAC-15-12) and respond to a SAC-15 recommendation and Resolution C-24-10 advising the staff to continue to develop and discuss the details of the climate change workplan.

The 1st Workshop on Climate Change was held by videoconference from 24 to 26 February 2025. The workshop agenda and the list of participants is provided in Annex 1 and 2, respectively.

1. Opening of the meeting

The meeting was chaired by Dr. Jon Lopez, head of the IATTC Ecosystem and Bycatch Program.

The chair provided some background elements for the workshop. The IATTC staff developed a proposed climate change workplan which provided a general structure to promote climate-resilient tuna fisheries in the EPO (SAC-15-12), in the understanding that the details of the workplan and its implementation would be elaborated in consultation, as appropriate, with all relevant stakeholders at workshops and other meetings of the IATTC and its subsidiary bodies. This process, as proposed, anticipates five phases: 1) Planning, 2) Deciding on goal and scope, 3) Developing a framework, 4) Creating tools, and 5) Tool application and/or management implementation. At the direction of the Commission (i.e., Resolution C-24-10), after first phase was complete, the staff was to continue the process by holding a workshop on the climate change workplan's goal and scope (Phase 2; see document CC-01-01), but also on the development of a framework (Phase 3; see document CC-01-02). It is considered that these two phases, which both anticipate the provision of inputs and elements of discussion by Members and relevant stakeholders, can be considered in the same workshop.

The workshop was split up into three topics, one to be covered each day: main goal, scoping, and framework of the climate change workplan.

2. A brief description of climate change impacts on the EPO

Dr. Dan Crear of the Ecosystem and Bycatch Program presented on the current and future climate impacts to fisheries in the EPO. Specifically, a general description of the cause of climate change was provided, followed by how the environment has changed and it expected to change in the EPO. It was also described how the environment directly and indirectly drives much of the physiology and behavior of marine species which ultimately influences how a species may respond to environmental change, and thus, also fisheries dynamics. Previous work on tuna and bycatch species in relation to climate and environmental change was discussed from a global perspective first and then focused in on the EPO. It was indicated that the impacts of climate change on EPO species and fisheries are not fully understood.

Participants of the workshops briefly discussed what type of actions could be appropriate for IATTC to consider when it comes to climate change.

3. Update on climate change work at IATTC

Dr. Dan Crear gave a presentation on the current work IATTC staff is conducting on climate change. This work has ranged from establishing an in-house environmental database, to developing species distribution models for tunas and certain bycatch species, and the creation and implementation of a proposed climate change workplan.

Participants discussions focused on how the climate change workplan fits in with the Ecosystem and Bycatch Working Group (EBWG) of the IATTC, as well as the type of work the IATTC should focus on (e.g., socioeconomic impacts, prey).

4. Main goal of climate change workplan

As context and a background reference for the discussion, Dr. Diana Stram presented the North Pacific Fisheries Management Council's experience on how their own climate change workplan was developed . The staff then followed up with a presentation on the preliminary main goal recommendation (CC-01-01) of IATTC staff's proposed climate change workplan, which was followed by participant discussions.

Staff Preliminary[1] Recommendation: ***To achieve the long-term objective of the Antigua Convention, appropriate measures should be taken to ensure that the fisheries, comprising the species covered under the Antigua Convention, their ecosystems, and habitats are climate resilient.***

The main participant discussion points on this topic focused on the aspects of the fishery that the IATTC could contribute to being climate resilient. Many participants felt including the ecosystem and habitat as part of the fishery that needs to be climate resilient was outside the described mandate of the IATTC in the Antigua Convention. Further discussions led to other participants suggesting that maybe the IATTC should consider the effects of fishing on the climate resilience of ecosystems. It was consistent across participants that the main goal of being climate resilient should align with the text of the Antigua Convention.

5. Scoping of the climate change workplan

Day 2 of the workshop focused on defining the scope of the IATTC's proposed climate change workplan. The day started with an introduction of what scoping is, followed by a presentation by Dr. Beth Fulton about the Commonwealth Scientific and Industrial Research Organisation's (CSIRO) climate change workplan experience and how scoping was defined in their process in Australia. The discussions after the presentation organically touched again on the ecosystem topic that was discussed the previous day.

The staff then went through the scoping questions for the proposed climate change workplan that preliminary recommendations were provided for and explained the subsequent recommendations (CC-

[1] In most or all such workshops, the IATTC staff submits to participants preliminary recommendations for their consideration. Based on the discussion, the staff may modify and update these recommendations before submitting them to the SAC and the Commission. Staff revised recommendations can be found in SAC-16 INF-P.

01-01). After the initial presentation the staff went through each question and recommendation one by one to elicit discussion.

5.1 What decisions are this climate change plan intended to support?

Staff Preliminary Recommendation: ***The workplan supports the development of science-based and appropriate conservation and management measures aimed at ensuring climate-resilient fisheries under the Antigua Convention and in the framework of the IATTC.***

There was no discussion on this question.

5.2 Who will be implementing the climate change workplan?

Staff Preliminary Recommendation: ***The workplan should be led, and its implementation monitored, by the IATTC, with the support of IATTC scientific and policy staff and the participation of all relevant stakeholders.***

Participants wanted it to be made clear that, in addition to the scientific and policy staff, the EBWG and SAC should be supporting this workplan as well.

5.3 What are the conservation and management targets of the climate change workplan?

Staff Preliminary Recommendation: ***The conservation targets of the workplan should be inclusive and cover all species under the Antigua Convention as well as their habitats and ecosystems as appropriate, without prejudice to defining priorities, for instance with regards to the industrial purse seine and longline fleets.***

The staff put together a live poll for this question for the participants to fill out to generate discussion. When discussing the fishery types, no participants disagreed with the inclusion of both the industrial purse seine and longline as conservation and management targets. Multiple participants felt it was necessary to not leave out artisanal fleets. There was some debate about what species should be included as conservation and management targets. Some expressed that species should be restricted to main target and bycatch species, whereas others felt that all species covered under the Antigua Convention should be included. Some of the views expressed in the discussion of the previous day were reiterated, specifically those about the inclusion of ecosystems and habitat. The external speaker and others highlighted the importance of not ignoring the links that connect the ecosystem to the species and the fishery. A potential solution expressed in these debates was to prioritize the conservation targets within the recommendation.

5.4 What is the geographic scope of the climate change workplan?

Staff Preliminary Recommendation: ***1. The primary geographic scope be the IATTC Convention Area as a whole. 2. Encouraging Pacific-wide climate research and management by promoting collaboration with the WCPFC and its scientific bodies and service providers.***

Similar to the previous scoping question, the staff put together a poll for this question for the participants to fill out to generate discussion. Workshop participants agreed that collaboration with WCPFC and their science provider, the Pacific Community (SPC), is essential and that fish stocks do not recognize boundaries. Some participants expressed that management and any implementation would need to be constrained to the Convention Area, but that science should be considered across the entire Pacific.

5.5 What is the temporal scope of the climate change workplan?

Staff Preliminary Recommendation: ***The temporal scope of the workplan considers multiple time scales, ranging from short (daily to annual) to medium term (annual to 10-25 years) to long term (25-100 years***

in the future), in a way appropriate for each of these timescales.

A poll was developed for this question as well. Multiple participants noted all three time periods were important. Some particpants noted the high level of uncertainty in climate projections and suggested that including a long-term temporal scope should not be a priority. However, other participants mentioned that despite the uncertainty, long-term projections remain valuable for identifying average long-term trends.

5.6 Who are the key partners and stakeholders and how are they involved in the workplan?

Staff Preliminary Recommendation: ***Workshops be participatory and open to all CPCs and other relevant stakeholders, including, but not limited to scientists, managers, fishers, industry members, NGOs, accredited observers, and subject matter experts.***

Like the previous three scoping questions, participants were given a poll to see what they thought of this question. Participants generally agreed with the above opinions of the staff. They also suggested expanding the participatory language to go beyond workshops and be explicit about including participation during analyses and discussions. For certain participants, it was also important to include other tuna RFMO representatives in the list of relevant stakeholders.

5.7 What resources are available and how will they be covered?

Staff Preliminary Recommendation: ***The IATTC should make all efforts to ensure that the resources required for an appropriate development and implementation of the workplan are made available, including through extrabudgetary funding whenever feasible.***

During workshop discussions of this scoping question, it was suggested that other resources beyond budgetary such as enhanced partnerships with other organizations and the sharing of available tools and resources be explored.

6. Framework of the climate change workplan

The third day of the workshop focused on the framework of the climate change workplan. After a brief introduction of defining a framework, two external speakers presented their organizations' frameworks to showcase the importance and design of fisheries frameworks. Dr. Wendy Morrison spoke about NOAA Fisheries Ecosystem Based Fisheries Management Framework and Dr. Kristin Kleisner talked about Environmental Defense Fund's (EDF) Framework for Integrated Stock and Habitat Evaluation (FISHE), a framework that has been applied to many small-scale fisheries throughout the world, include in Mexico and Belize.

Questions and discussions with the external speakers focused on discussing indicators, the importance of communication between scientists and managers, "onramps" to get science into management, examples on how science led to policy changes, and the various tools offered in FISHE.

The staff then presented their preliminary framework recommendation (CC-01-02) of IATTC's proposed climate change workplan. The framework recommendation consisted of the physical diagram of the framework and how each step of the framework is connected as well as a description of each step. The staff also presented on common features that were found across many other climate resilient fisheries frameworks. To generate discussion and get a sense of what common features workshop participants felt should be included in a framework, the staff put together a series of polling questions.

One of the main discussion points brought up by multiple participants was how this framework would integrate with the current structure of the IATTC and this needed to be made more clear in the framework description. Participants also agreed with staff that it is important to have both the goal and scope defined in the first step before moving forward with the rest of the framework. There was also agreement among

many participants to have a cyclical/iterative framework structure, that it would be good to have feedbacks at various steps to ensure the steps are still on the right track, and to have a framework with some type of periodicity (how often should framework be re-run?).

When discussing the levels of climate vulnerability and assessment, many participants felt it was important to assess climate impacts at the species and ecological level, fishery level, and management level. It was also suggested to include whether other assessments that IATTC staff are already undertaking are linked to the climate assessment. Participants wanted examples of various tools that could be used to assess impacts at each level for the assessment step in the framework.

Some of the other features that many of the participants agreed on having in a framework was the inclusion of stakeholder input, particularly by RFMO/CPC scientists and fishery managers, accounting for uncertainty, being easily adaptable. There was also strong agreement that the framework should have some form of management action/implementation by the Commission. Lastly, a participant mentioned the need for each step to be made clear and to identify products expected at each step.

Annex 1. Agenda

1. Opening of workshop
2. Welcome participants and adoption of agenda
3. A brief description of climate change impacts on the EPO
4. Update on IATTC climate change work
5. Main Goal of the Climate Change workplan
    a. Development of a Climate Resilient Fisheries Work Plan (Diana Stram, PhD; North Pacific Fishery Management Council)
    b. IATTC staff preliminary main goal recommendation (CC-01-01)
    c. Discussion of recommendation
6. Scoping of the Climate Change workplan
    a. Supporting Adaptation: Scoping & Response Framework (Beth Fulton, PhD; CSIRO)
    b. IATTC staff preliminary scoping recommendations (CC-01-01)
    c. Discussion/activity of scoping questions and recommendations
7. Framework of the Climate Change workplan
    a. NOAA Fisheries Ecosystem Based Fisheries Management Framework (Wendy Morrison, PhD; NOAA Fisheries)
    b. Framework for Integrated Stock and Habitat Evaluation (FISHE) (Kristin, Kleisner, PhD; EDF)
    c. IATTC staff preliminary framework recommendation (CC-01-02)
    d. Discussion/activity of frameworks and recommendation
8. Others
9. Closure of workshop

Annex 2. List of workshop participants

Country	Name	Organization	Email
Belize	Charles Coc	Belize High Seas Fisheries Unit	charles.coc@bhsfu.gov.bz
Belize	Delice Pinkard	Belize High Seas Fisheries Unit	delice.pinkard@bhsfu.gov.bz
Canada	Kristen Cote	Fisheries and Oceans Canada	kristen.cote@dfo-mpo.gc.ca
China	Qinqin Lin	Shanghai Ocean University	qqlin@shou.edu.cn
China	Shiyu Yang	Shanghai Ocean University	Yangshiyu_SHOU@163.com
Colombia	Leonel Bohorquez	Ministerio de Relaciones Exteriores	leonel.bohorquez@cancilleria.gov.co
Colombia	Rafael Daza	Ministerio de Relaciones Exteriores	Rafael.Daza@cancilleria.gov.co
Colombia	Javier García	Ministerio de Comercio, Industria y Turismo	jgarciap@mincit.gov.co
Colombia	Carmen López	Ministerio de Ambiente y Desarrollo Sostenible	calopezanaya@minambiente.gov.co
Colombia	Diana Alvarez	Autoridad Nacional de Acuicultura y Pesca	diana.alvarez@aunap.gov.co
Colombia	German Fonseca	Programa Nacional de Observadores de Colombia	german.fonseca@pescalimpia.org
Costa Rica	Martín Méndez	Instituto Costarricense de Pesca y Acuicultura	m.mendez@incopesca.go.cr
Ecuador	Jorge Blacio	Subsecretaria De Recursos Pesqueros	jblacio@produccion.gob.ec
Ecuador	Luciano Delgado	Subsecretaria De Recursos Pesqueros	ldelgados@produccion.gob.ec
Ecuador	Henry Mero	Subsecretaria De Recursos Pesqueros	hmero@produccion.gob.ec
Ecuador	Jostyn Sanchez	Subsecretaria De Recursos Pesqueros	jsanchezv@produccion.gob.ec
Ecuador	Manuel Peralta	Instituto Público de Investigación de Acuicultura y Pesca	mperalta72@gmail.com
Ecuador	Telmo de la Cuadra	Instituto Público de Investigación de Acuicultura y Pesca	tdelacuadra@institutopesca.gob.ec
Ecuador	Carlos Naranjo	INAMHI	cnaranjo@inamhi.gob.ec
Ecuador	Luis Ambrosio	Tunacons	lambrosio66@gmail.com
Ecuador	Pedro Santistevan	Tunacons	psantistevan@tunacons.org
Ecuador	Guillermo Moran Borja	Tunacons	guillermo.estefano.mb@gmail.com
Ecuador	Leonardo Caicedo	Tunacons	data.observadores@tunacons.org
Ecuador	Luis Ochoa	Producción Pesquera ManaPesca	ochoamendoza1@hotmail.com
Ecuador	Francisco de la Torre	Dirsa	fdlt03@gmail.com
Ecuador	Marco Rodriguez	Biogestamb	biomar2005@yahoo.com
Ecuador	Andrea Arias	EOSS Consultant & Technologies	eossonsultant@outlook.com
El Salvador	Abilio Orellana	Cendepesca	jose.orellana@mag.gob.sv
EU	Josu Santiago	Azti	jsantiago@azti.es
EU	Eider Andonegi	Azti	eandonegi@azti.es
EU	Lourdes Ramos	Instituto Español de Oceanografía	mlourdes.ramos@ieo.csic.es
Guatemala	Douglas Caravantes	Dirección de Normatividad de Pesca y Acuicultura	doucaravantes@gmail.com
Japan	Shinji Hiruma	Fisheries Agency of Japan	shinji_hiruma150@maff.go.jp
Japan	Daisuke Ochi	Japan Fisheries Research and Education Agency	ochi_daisuke36@fra.go.jp
Japan	Masahide Kanno	Fisheries Agency of Japan	masahide_kanno210@maff.go.jp
Japan	Sachiko Tsuji	Japan Fisheries Research and Education Agency	tsuji_sachiko30@fra.go.jp
Mexico	Isabel Reyes	Conapesca	isabel.reyes@conapesca.gob.mx
Mexico	Michel Dreyfus	Fidemar	dreyfus@cicese.mx
Mexico	Gustavo Lopez	Conapesca	gustavo.lopez@conapesca.gob.mx
Mexico	Bertha Soler	Conapesca	bertha.soler@conapesca.gob.mx
Mexico	Maria del Carmen Jimenez	Instituto Mexicano de Investigacion en Pesca y Acuacultura Sustentable	carmen.jquiroz@imipas.gob.mx
Mexico	Martha Betancourt	Fidemar	martha.betancourt@uabc.edu.mx
Nicaragua	Renaldy Barnuty	Instituto Nicaragüense de Pesca y Acuicultura	rbarnutti@inpesca.gob.ni
Panama	Thelma Quintero	Arap	tquintero@arap.gob.pa
Panama	Evelyn Ríos	Arap	evelyn.rios@arap.gob.pa
Panama	Luisa Molina	Arap	lmolina@arap.gob.pa
Panama	Robert Duarte	Arap	rduarte@arap.gob.pa
Panama	María Patricia Díaz	Fipesca	fipesca@fipesca.com
Peru	Ana Alegre Norza	Instituto del Mar del Perú	palegre@imarpe.gob.pe
Peru	Jorge Tam	Instituto del Mar del Perú	jtam@imarpe.gob.pe
Peru	José Salcedo Rodríguez	Instituto del Mar del Perú	jsalcedo@imarpe.gob.pe
Peru	Juan Rios	Ministerio de la Producción	dccbpa_temp22@produce.gob.pe
Chinese Taipei	Shao-Wei Lu	Fisheries Agency	shaowei0220@ms1.fa.gov.tw
Chinese Taipei	Shu-Man Pai	Overseas Fisheries Development Council	shuman0823@ms1.fa.gov.tw
USA	Steve Teo	NOAA	steve.teo@noaa.gov
USA	Rachael Wadsworth	NOAA	rachael.wadsworth@noaa.gov
USA	William Gibbon-fly	American Tunaboat Association	wgibbons-fly@atatuna.com
USA	Theresa Labriola	Wild Oceans	tlabriola@wildoceans.org
Bolivia	Limbert Cortez	Unidad Boliviana de Pesca Marítima	limbert.cortez@protonmail.ch
Bolivia	Hugo Alsina	Unidad Boliviana de Pesca Marítima	hugo@alsina-et-al.org
Int. Org.	Joe Zelasney	FAO	joseph.zelasney@fao.org
NGO	Luigi Benincasa	Atunec	luigibenincasa@gmail.com
NGO	Jorge Villavicencio	Atunec	abjorgevillavicenciomendoza@gmail.com
NGO	Cesar Viteri	Charles Darwin Foundation	cesar.viteri@fcdarwin.org.ec
NGO	Solange Andrade	Charles Darwin Foundation	solange.andrade@fcdarwin.org.ec
NGO	Nicolas Moity	Charles Darwin Foundation	nicolas.moity@fcdarwin.org.ec
NGO	Gala Moreno	International Seafood Sustainability Foundation	gmoreno@ss-foundation.org
NGO	Diego Lilo	Interamerican Association for Environmental Defense	lillo.goffreri@gmail.com
NGO	Mariana Ramos	Alianza del Pacífico por el Atún Sustentable	ramoss.mariana@gmail.com
NGO	Dave Gershman	The Pew Charitable Trusts	dgershman@pewtrusts.org
NGO	Alison Cross	WWF	alison.cross@wwfus.org

Panelist	Kristin Kleisner	Environmental Defense Fund	kkleisner@edf.org
Panelist	Jacob Eurich	Environmental Defense Fund	jeurich@edf.org
Panelist	Diana Stram	NOAA	diana.stram@noaa.gov
Panelist	Wendy Morrison	NOAA	wendy.morrison@noaa.gov
Panelist	Beth Fulton	CSIRO	beth.fulton@csiro.au
IATTC	Manuel Correia	Bycatch Chair	manuelcorreia.a@gmail.com
IATTC	Yonat Swimmer	Bycatch Chair	yonat.swimmer@noaa.gov
IATTC	Arnulfo Franco	IATTC	afranco@iattc.org
IATTC	Alex Da Silva	IATTC	alexdasilva@iattc.org
IATTC	Jon Lopez	IATTC	jlopez@iattc.org
IATTC	Dan Crear	IATTC	dcrear@iattc.org
IATTC	Dan Ovando	IATTC	dovando@iattc.org
IATTC	Leanne Fuller	IATTC	lfuller@iattc.org
IATTC	Marlon Roman	IATTC	mroman@iattc.org
IATTC	Melanie Hutchinson	IATTC	mhutchinson@iattc.org
IATTC	Jean Francois Pulvenis	IATTC	jpulvenis@iattc.org
IATTC	Brad Wiley	IATTC	bwiley@iattc.org
IATTC	Yole Buchalla	IATTC	ybuchalla@iattc.org
IATTC	Dan Margulies	IATTC	dmargulies@iattc.org