

State of the Science-Policy Interface in PICES: Introduction

How does PICES Science address regional and global policy?



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PICES Secretariat



Convention For A North Pacific Marine Science Organization

defines PICES's role is to “advance scientific knowledge through promoting and facilitating international collaboration” (1992~)



Article III:

Purpose of the Organization shall be...

to promote and coordinate marine scientific research in order to advance scientific knowledge of the area concerned and of its living resources, including but not necessarily limited to research with respect to the ocean environment and its interactions with land and atmosphere, its role in and response to global weather and climate change, its flora, fauna and ecosystems, its uses and resources, and impacts upon it from human activities;

to promote the collection and exchange of information and data related to marine scientific research in the area concerned.

PREAMBLE

THE CONTRACTING PARTIES,

RECOGNIZING the need for improved scientific understanding of the North Pacific Ocean and its processes, living resources, and oceanographic features;

AWARE that due to the vast expanse of the North Pacific Ocean, scientific understanding of the area can be best achieved through a spirit of international scientific cooperation on a mutually beneficial basis;

DESIRING to establish an appropriate intergovernmental organization to promote and facilitate such scientific cooperation and avoid duplication of effort;

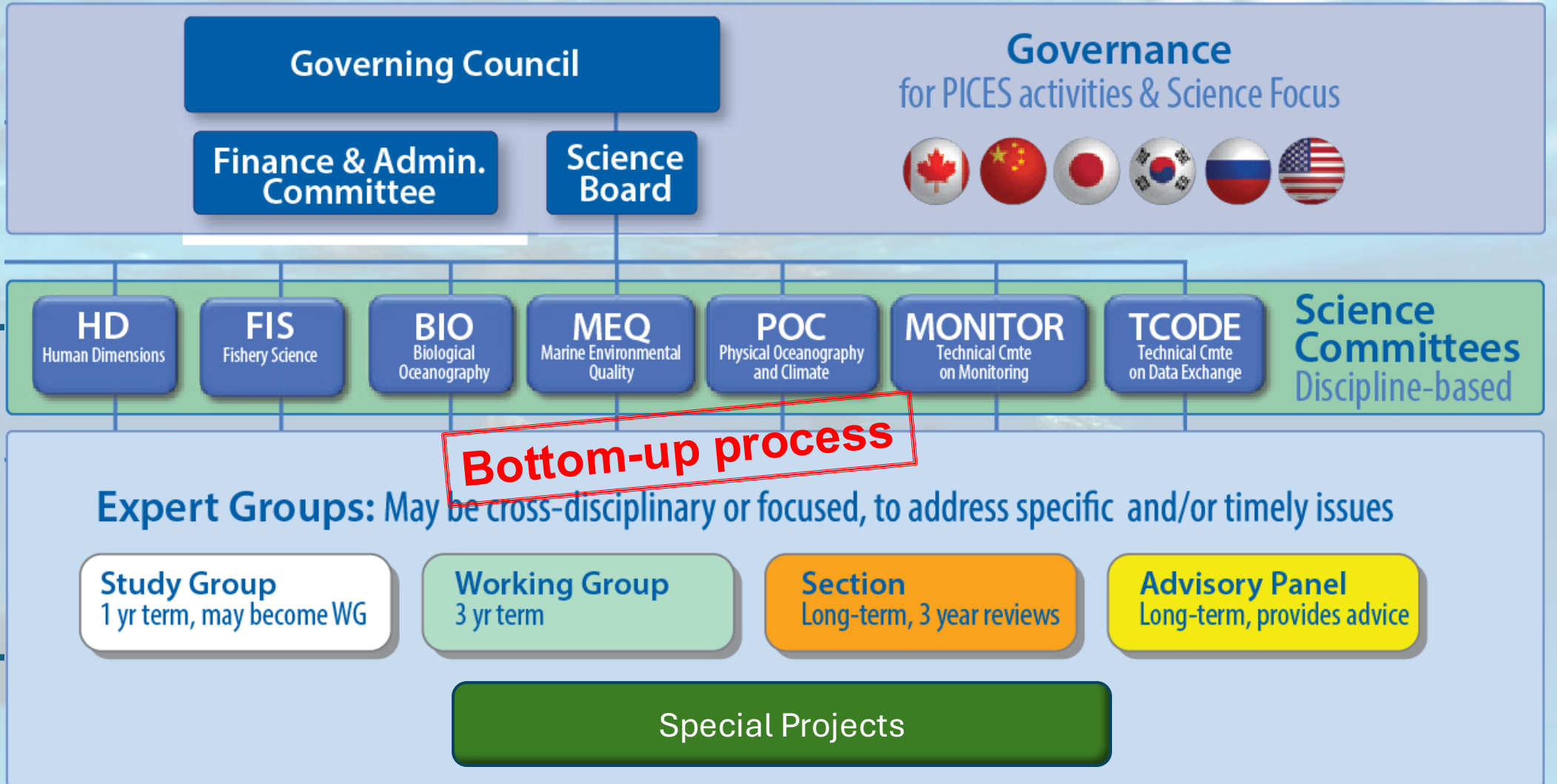
ACKNOWLEDGING that the activity of the organization must be based on the principles and rules of the international law of the sea applicable to marine scientific research,

HAVE AGREED as follows:

PICES Organizational Structure: Mechanism for promoting collaboration



FUTURE
Science Program



Generally, PICES does NOT directly provide policy and management advice to member countries



BUT

Provides scientific knowledge, and information to support evidence-based management options upon the request of member countries and NP communities.

Conservation Management

DID and will DO
e.g. Ecosystem risk assessment of different MPA options, ecosystem assessment to measure the Effectiveness of MPA, identification of EBSA, VE

DON'T
Suggestion of non-take MPA setting

Fisheries Management

DID and will DO
e.g. Study on the mechanism of fish population dynamics, projection of biogeographical shift of fisheries ground

DON'T
Advice on fisheries negotiation

Tool/Products
Model output
Indicators
Mapping
Best Practice Manual
Assessment Report

But what level of policy are we talking about?

Policy in IPOS/UNOC
=> International Treaty/Agreement

Case A: Country and Regional Level Management

PICES Science to PICES member country(s) and/or North Pacific Community

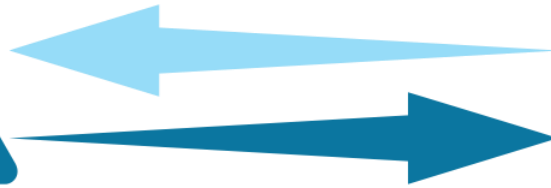
Case B: International Treaties and Agreements

PICES Science Contribution to Implementation of International Treaties/Agreements

Case A: Country and Regional Level Management

PICES Science to PICES member country(s) and/or North Pacific Community

PICES Science



2017/A/7: Policy for approval and management of Special Projects

Special Project

A Special Project is supported through voluntary contributions by a Contracting Party and conducted under the authority of PICES in support of the scientific mission of the Organization.



ADRIFT

Assessing the Debris Related Impact From Tsunami

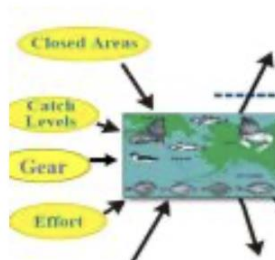
(April 2014 - March 2017)



Ciguatera

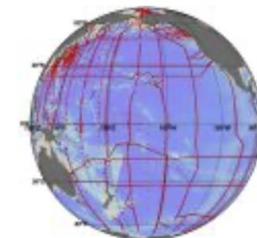
Building Local Warning Networks for the Detection and Human Dimension of Ciguatera Fish Poisoning in Indonesian Communities

(April 2020 – March 2023)



Bering Sea Indicators

(2006)

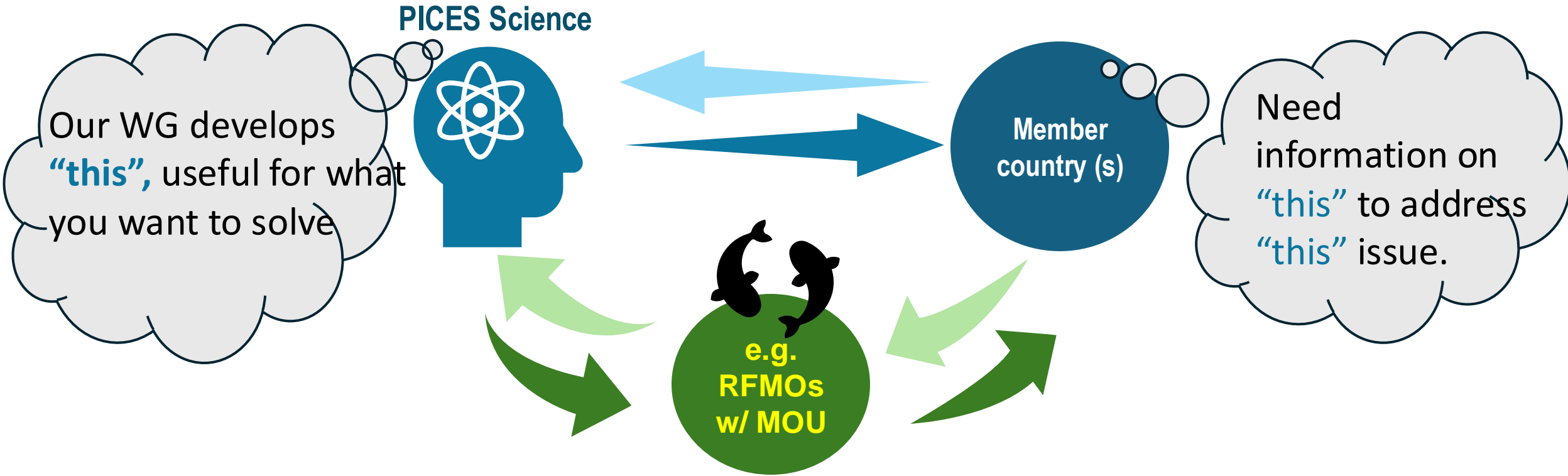


PACIFICA

More

Case A: Country and Regional level Management

PICES Science to PICES member country(s) and/or North Pacific Community



Others: MEQ group to NOWPAP etc.

The contribution has usually been made on EG bases (included in TORs), and the co-design/production processes are case-by-case.



Hello, How can I help ya?

SHREK © 2019 DREAMWORKS

Case B: International Treaties and Agreements

PICES contribution to various processes of implementation of International Treaties/Agreements

Examples of PICES Relevant Treaty/Agreements

1.5°

Paris Agreement
under UNFCCC

Kunming-Montreal
Global Biodiversity Framework
under CBD

30 x 30

The United Nations Fish
Stock Agreement
(UNFSA)
under UNCLOS

International Agreement to
Prevent Unregulated Fishing
in the High Seas of the
Central **Arctic Ocean**

The United Nations
Agreement on the
Conservation and Sustainable
Use of Marine Biological
Diversity of Areas beyond
National Jurisdiction (**BBNJ**)
under UNCLOS

Plastic Treaty
(under negotiation, to
be agreed in 2024-
2025)

Member countries
pledged voluntary
contributions to
achieve the goals.

**World Ocean
Assessment**

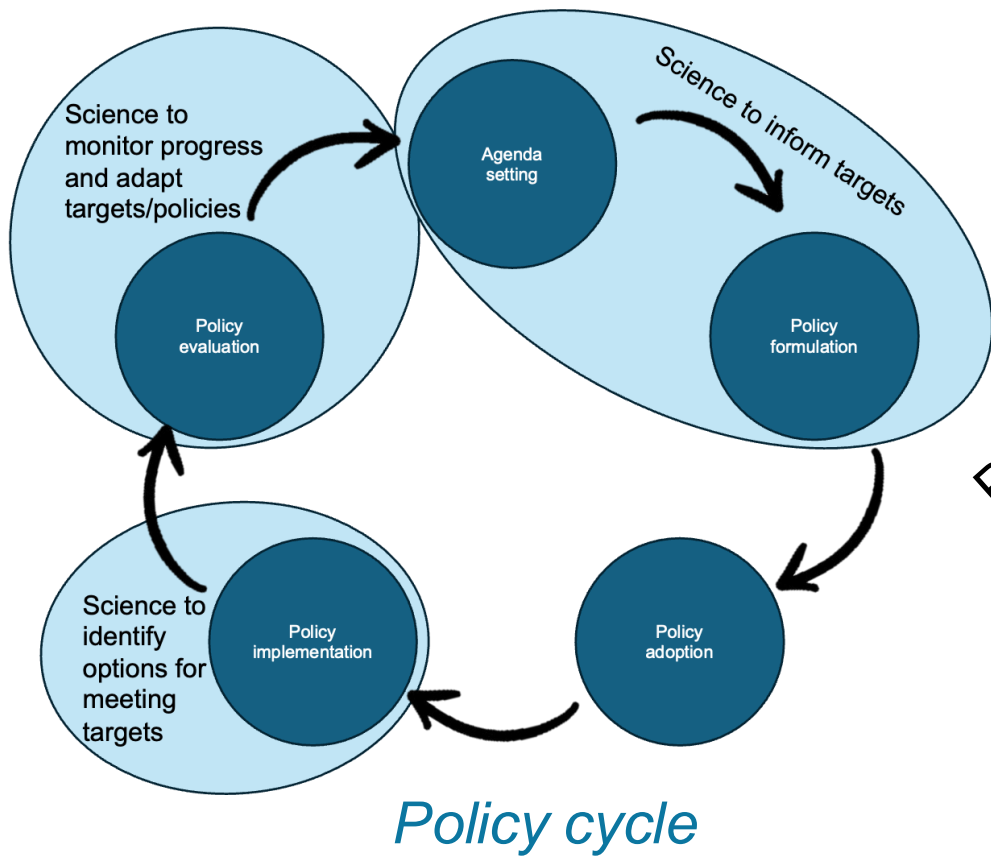
IPBES

IPCC

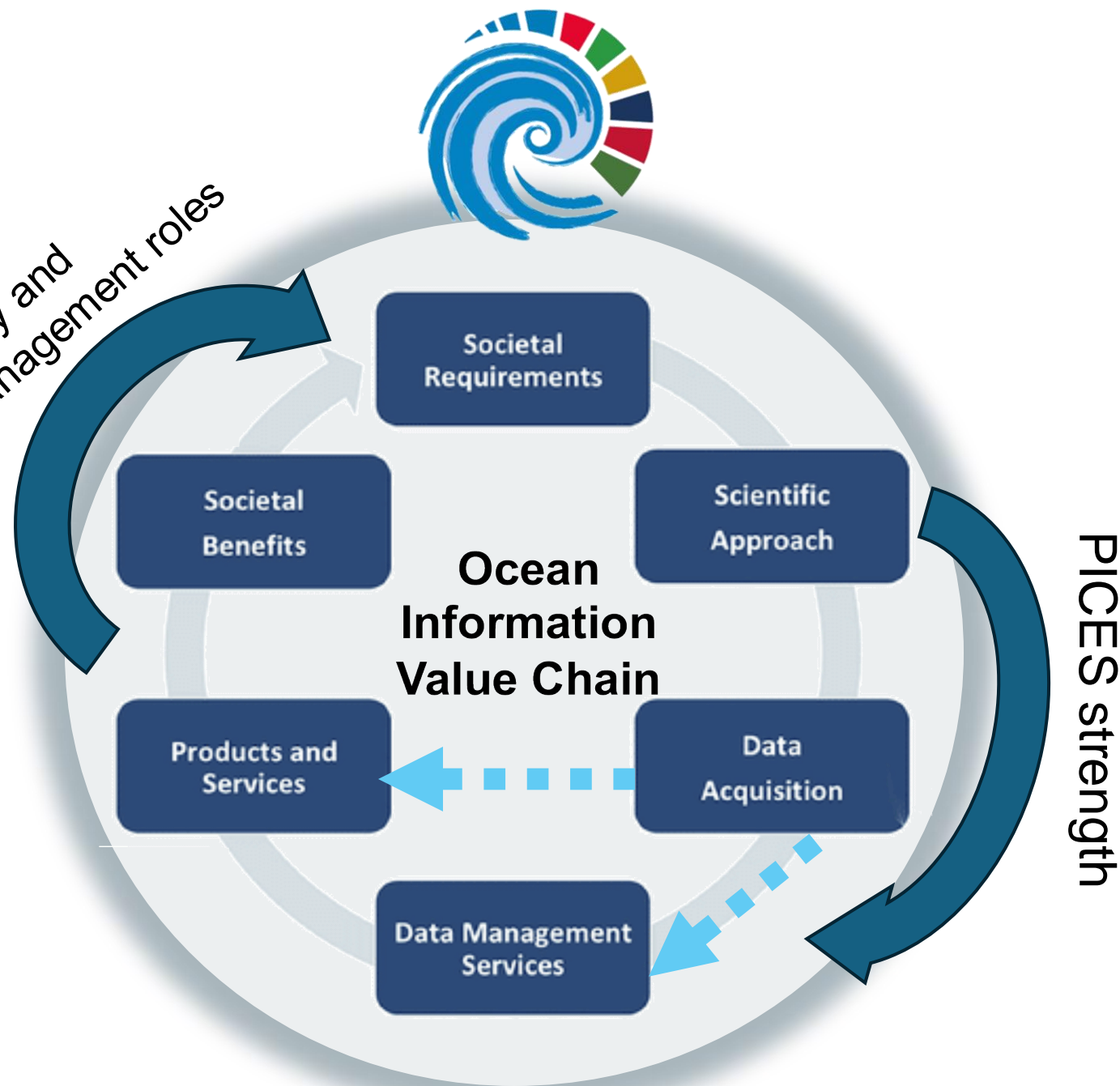
**SDG and
UNDOS**

Upon ratification,
Member countries are
committed to
achieving the targets

*How can
PICES help?*

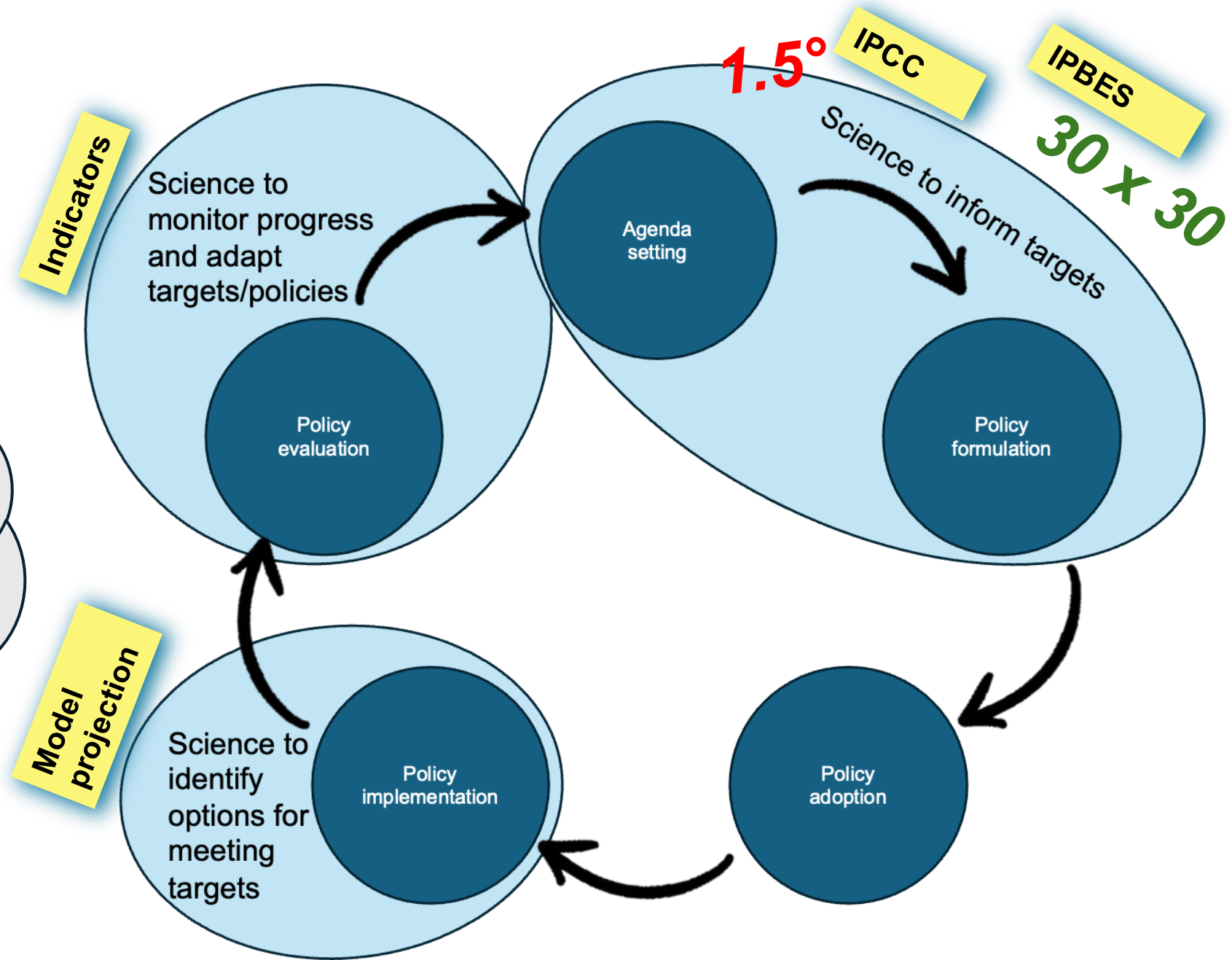


Policy and management roles



Policy cycle – International treaty

PICES Scientists and EGs
have contributed to
agenda setting of
International treaties
**(not as organisational
inputs)**



Modified from Knill & Tolsun, 2008: five stages of the policy cycle

Through International collaboration, PICES Scientists connected the North Pacific to Global Climate-Ocean-Ecosystem variability.

30-yrs ago in Europe

El Nino?



El Niño planet-warming weather phase has begun

8 June 2023

Matt McGrath
Environment correspondent

2023 BBC News +



A natural weather event known as El Niño has begun in the Pacific Ocean, likely adding heat to a planet already warming under climate change.

Case B: International Treaties and Agreements

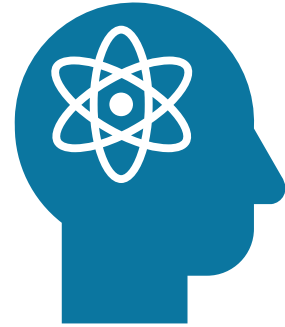
PICES contribution to various processes of implementation of International Treaties/Agreements

UNFSA

Fish Stock Agreement

Contributed to DOALO's request for input into the "Sustainable Fisheries Management in the face of Climate Change" workshop in May 2024 at the UN, with the achievement of WG34, WG41, WG45

PICES Science



Input request

Intl Treaty

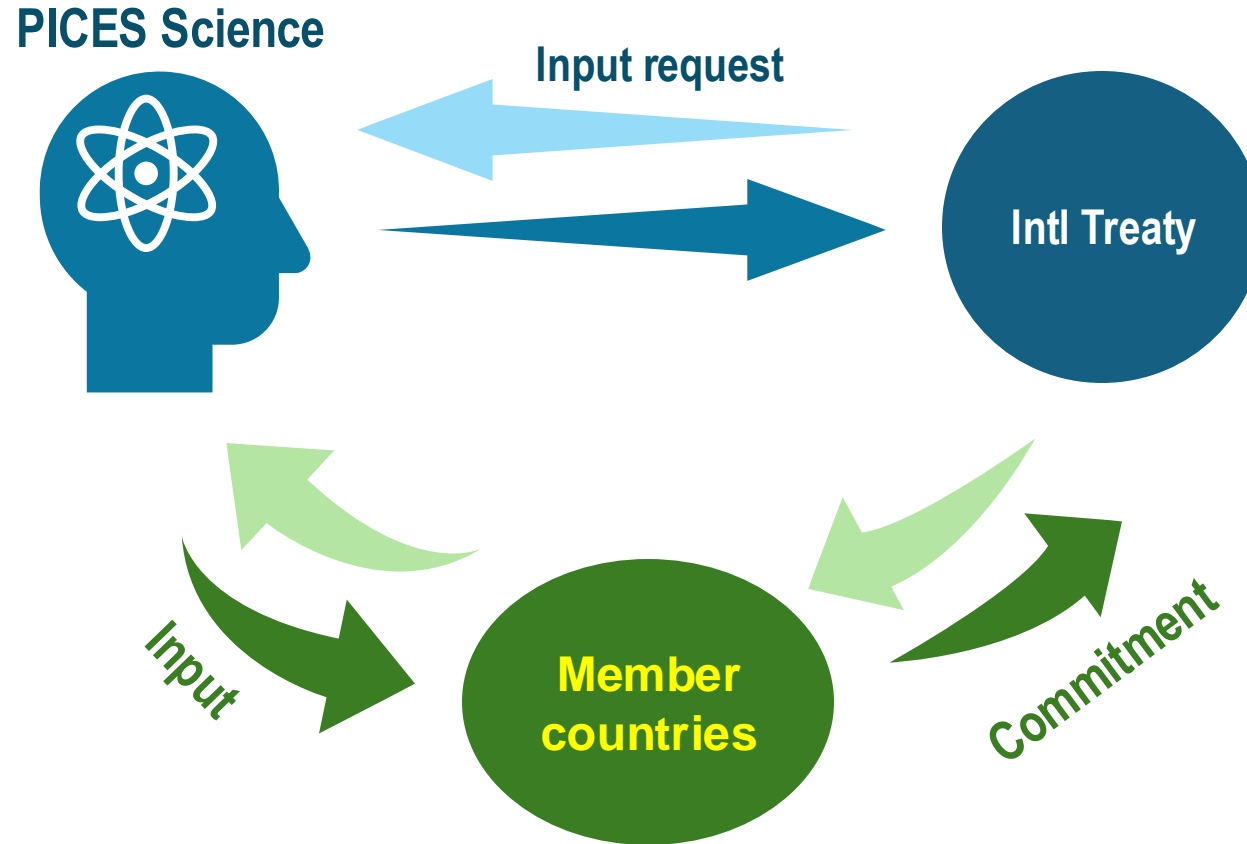
Input

Member countries

Commitment

IPBES

Invited to stakeholder dialogues on the future role of the policy support function of IPBES





Relevance of recent PICES Expert Groups to Global Biodiversity Framework (GBF) Targets and components of other major International Treaties.

PICES Science to address GBF Targets



And other International treaties



BBNJ

Package II: Area-Based Management Tools incl. MPA
Package III: Environmental Impact Assessments

UNFCCC

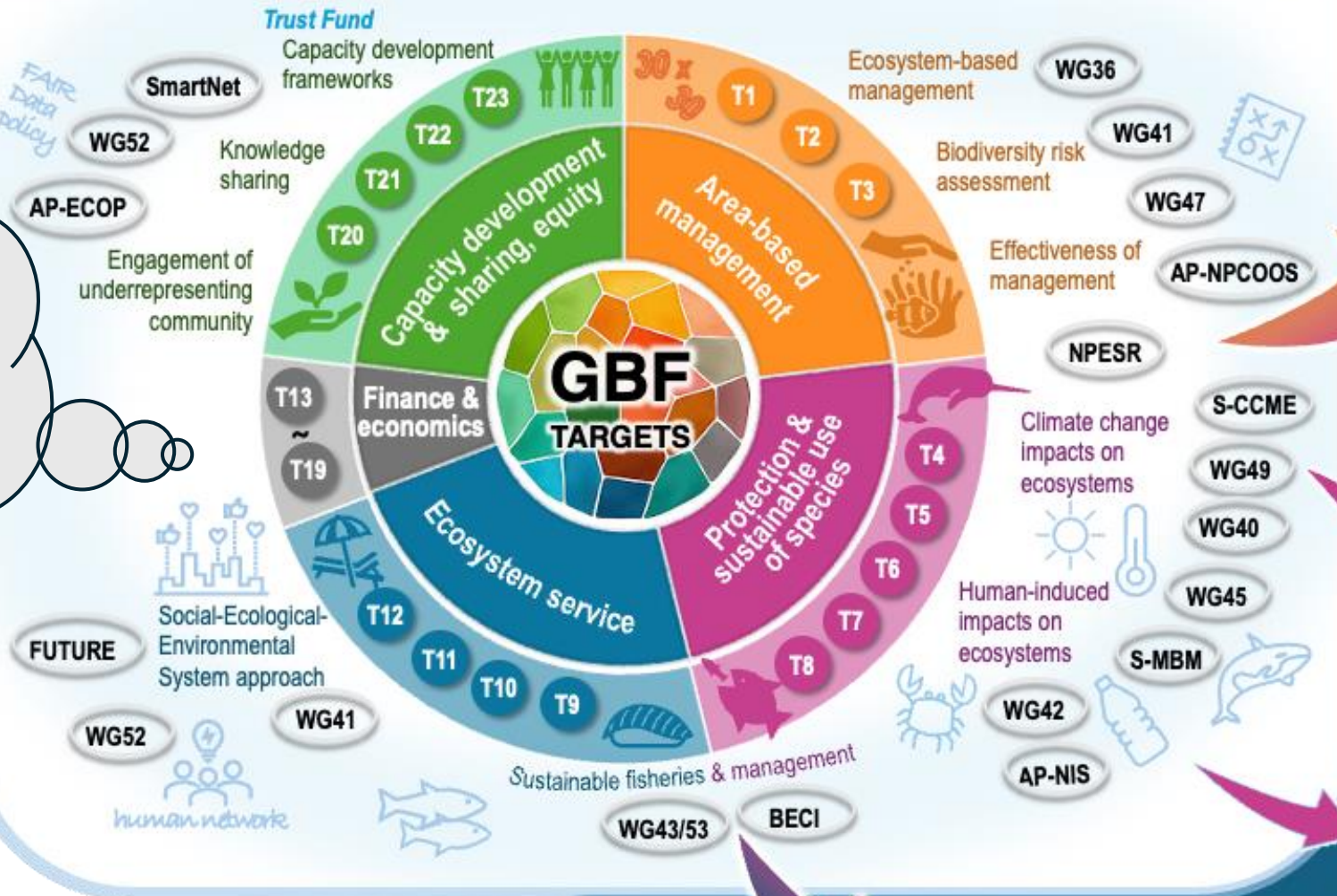
IPCC Reports

Plastic Treaty

Monitoring and assessment

UNFSA

Reporting on "Sustainable Fisheries Management in the Face of Climate Change"



How can PICES strategically help member countries achieve the targets?



Kunming-Montreal

GLOBAL BIODIVERSITY FRAMEWORK



Convention on
Biological Diversity

PICES member countries are due to report their progress for each target & sub-target with respective **official indicators** at a national level (similar to SDG)

Ocean Relevant Indicator Examples

Target 3. Conserve 30% of land, waters and seas

Headline Indicator: Coverage of protected and with effective area-based conservation measures

Target 6. Reduce the Introduction of Invasive Alien Species by 50% and Minimize Their Impact

Headline Indicator 6.1. Rate of invasive alien species establishment

Issues

- The marine realm is not represented enough in the current official indicator list despite the existing dataset and observation network (the ocean science community could develop appropriate indicators)
- The indicator development process is complicated and rather political.
- Needs for the development of ocean-specific indicators for relevant targets



BBNJ Treaty (or High Sea Treaty)

(not entered into force yet)

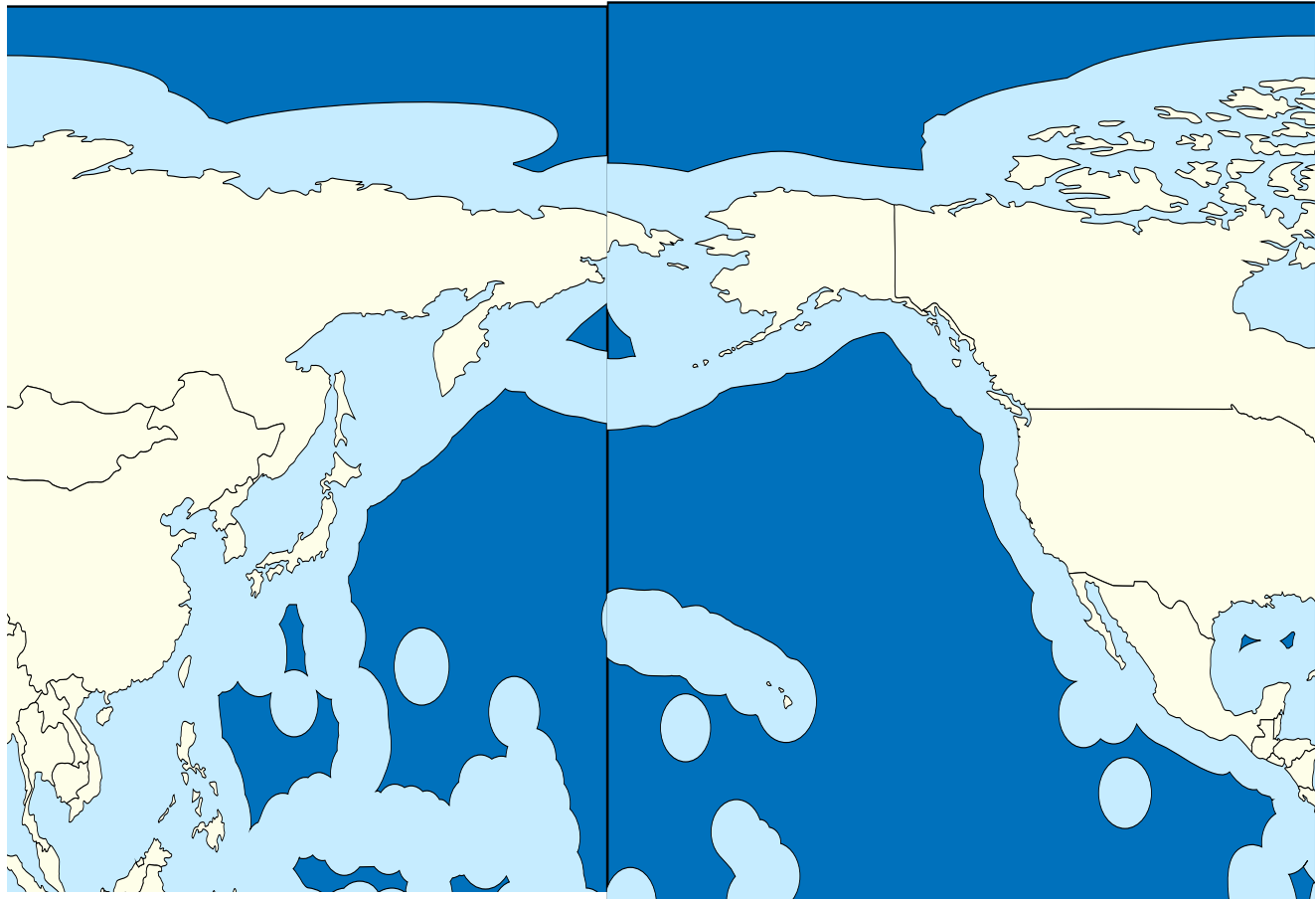
Potential areas of PICES contribution

Package II

Includes Measures such as Area-Based Management Tools (including Marine Protected Areas)

Package III

With a focus on Environmental Impact Assessments.



North Pacific holds a vast High Sea area, and the treaty can be addressed only through International collaboration.



Hello! how can we help you?



PICES for Actionable Science

Create regular (either informal or formal) dialogue opportunities among scientists, national delegates and other stakeholders to ensure mutual priority and needs.

Develop organisational structure, governance system, and science leadership which allow effective co-design of actionable science plan (e.g. change in WG proposal process)

For international-level policy, enhance engagement in the UN Initiative (e.g. seek official representation at the UN) to help PICES members deliver their commitments.

The Science We Need for the Ocean We Want



A clean ocean



A healthy & resilient ocean



A productive ocean



A predicted ocean



A safe ocean



An accessible ocean



An inspiring & engaging ocean



PICES Science in the Next Decade




**Where is the best
balance of these?**

**Advocate solution-based
science**



**Champion science driven by
a sense of wonder**

A large, powerful ocean wave is crashing, with white foam and spray. The water is a deep blue-green color. The sky is a vibrant blue with scattered white clouds. The overall scene is dynamic and energetic.

Challenges = Opportunities

... and it's the TIME



10 Science Session Themes
aligning to UNOC Ocean Action
Panel

Submission Deadlines

Abstract: November 14

Townhall Proposals: December 13

SCIENCE for ACTION



***Ocean Action Panel
June 13***



**United
Nations**



2025 UN OCEAN CONFERENCE
June 2025, France