

20th Regular Session of the Scientific Committee
14-21 August 2024, Manila, Philippines



ECOSYSTEM AND CLIMATE INDICATORS

WCPFC-SC20-2024/EB-WP-01

Oceanic Fisheries Programme, Pacific Community

Work-plan

Task	Activity	Schedule			
		SC20	SC21	SC22	SC23
Initial screening of candidate indicators	Apply criteria endorsed at SC12 to candidate indicators that are relevant for monitoring impacts on purse seine and long-line fisheries and tuna species productivity	Green			
Test candidate indicators	Fully develop methodology for developing and testing candidate indicators	Yellow	Orange	Green	
	Test candidate indicators	Yellow	Orange	Green	
	Expert Workshop	Yellow	Orange	Green	
	Adoption Workshop		Green		
Indicator validation	SC review and evaluation that adopted		Green	Green	Green
Communication tools	Report cards	Green	Green	Green	Green
	Dashboards	Green	Green	Green	Green
	TFAR	Green	Green	Green	Green

Preparatory Work for testing Indicators

Historical simulation

- Two bias corrected simulations (ERA5 & JRA55) covering the period of WCPO fisheries that reproduce the long-term variability of the ocean dynamics in the Pacific Ocean. Coupled to PISCES and SEAPODYM lower and mid trophic model to include biochemistry and tuna prey.

Future climate scenarios

- bias corrected reference ensemble to future WCPO ocean states using the above ERA5 and JRA55 simulations provide the baseline variability for preparing climate projections
- Simulations have been prepared for three scenarios of climate change, SSP1-2.6, SSP2-4.5 and SSP5-8.5 and two CMIP6 models (IPSL-CM6A-LR and CNRM-ESM2-1).

GHG removed historical simulation

- Simulation covering the period 1900-2010 and detrended to remove the historical impact of greenhouse gas emissions to provide a reference to the potential magnitude of change already observable in the Western and Central Pacific Ocean due to climate change.

Testing Candidate Indicators



- Expert workshops proposed for June and August 2024 to develop the criteria for testing and adopting criteria have been postponed to November 2024 due to the travel restrictions in Noumea associated with the current civil unrest in New Caledonia that prevented participation by SSP and collaborating organization personnel.
- The revised schedule for these workshops will be held in conjunction with an ocean monitoring meeting of regional practitioners in the week prior to WCPFC21 in Suva, Fiji.
- Provides opportunity for WCPFC members to participate as part of their travel arrangements for WCPFC21. The draft Terms of Reference for this meeting are included in the working paper.

Recommendations

The SC is invited to:

1. Note the progress towards implementing the SC19 endorsed Ecosystem and Climate Indicators Workplan.
2. Note the delay in the first expert workshop due to travel disruptions associated with the civil disturbances through May-July in New Caledonia.

SSP will work with the WCPFC Secretariat to provide a formal announcement of the November Expert Workshop in September

- Experts in physical and fisheries oceanography, climate and ecosystem science and ocean-science based service providers with experience in developing ocean-climate services have been invited.
- WCPFC members with a background in climate and ecosystem science are invited to participate.
 - 1 October Deadline for registration so we can organise suitable facilities
 - Note that participation will be at participants expense