



UN Ocean Decade Programme
UN24 Explore the strongest ocean current in the Western Pacific: the 2nd
Cooperative Study of Kuroshio and Adjacent Regions – from its sciences to
human well beings
(CSK-2)

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Endorsed by the IOC Sub-Commission for the Western Pacific



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Presentation outline



1. Justification for the Decade
2. Brief descriptions of the Decade Action
3. Main progress made since it was accepted as the Ocean Decade Actions in June 2022
4. Activities tentatively planned for May 2023- April 2025
5. Recommendations

1. Justification

Background: CSK-1 (1965-1979), ~50 years ago,

- Gave us a preliminary understanding of the circulation, ecosystem, and fishery characteristics of the Kuroshio region
- Substantial knowledge gaps become increasingly prominent, and need to be filled in the understanding of the Kuroshio

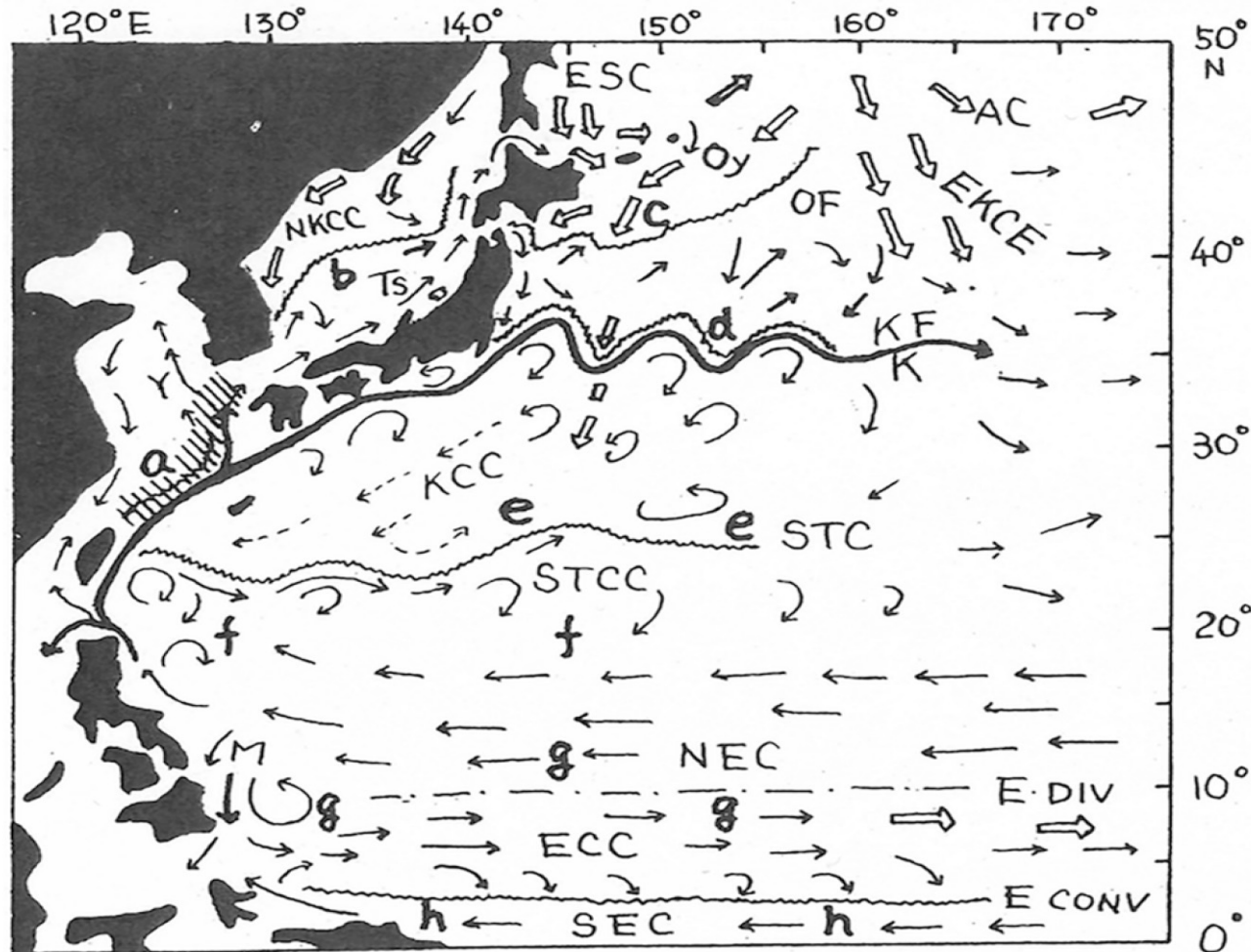
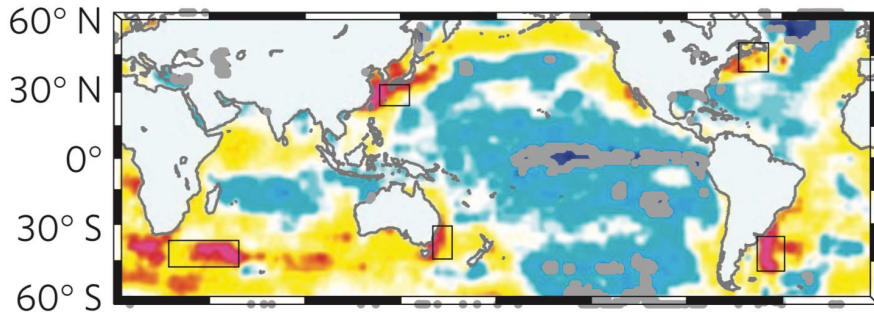


Fig. 1-1. Schematic map of currents, fronts, and fishing grounds (from Uda, 1972).

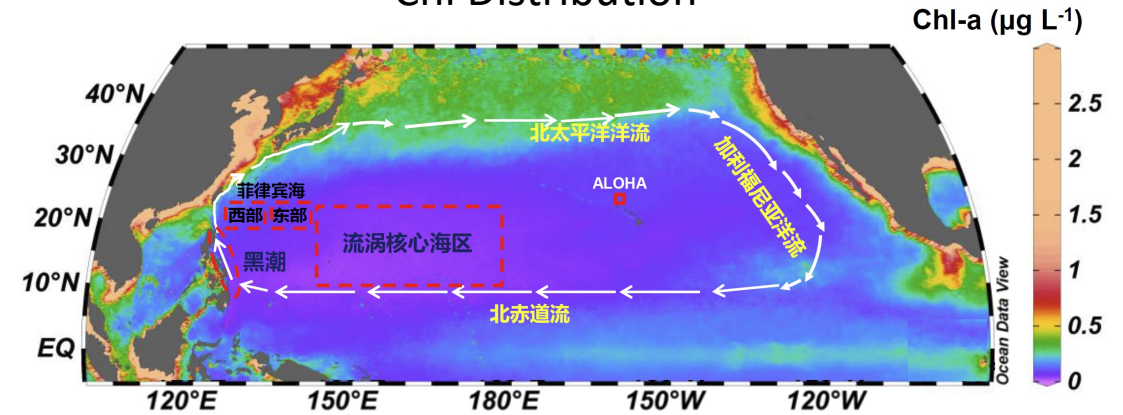
1. Justification

Kuroshio and its adjacent region is one of the key regions for the ecosystem, and also has been known as one of the most responsive areas to the global warming.

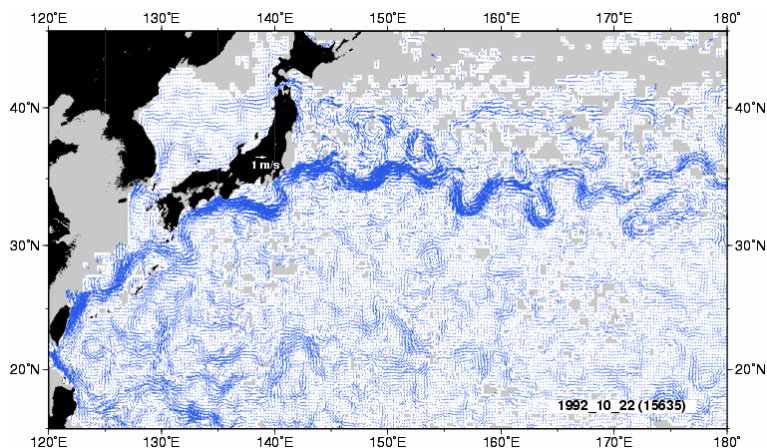
SST Trend



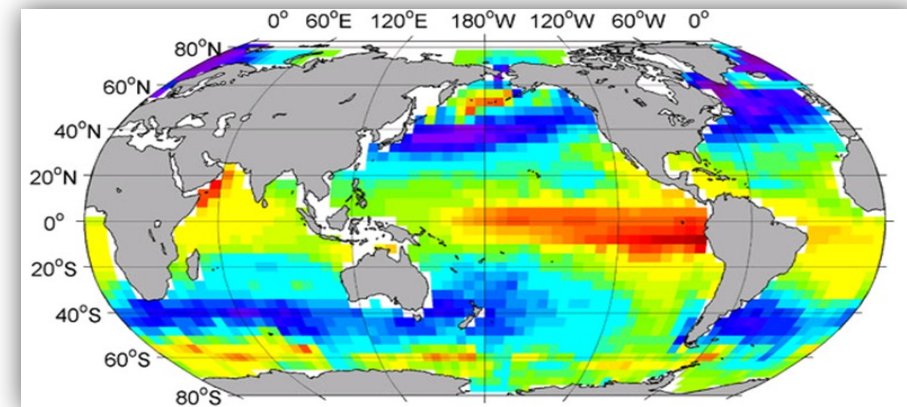
Chl Distribution



Western Boundary Current

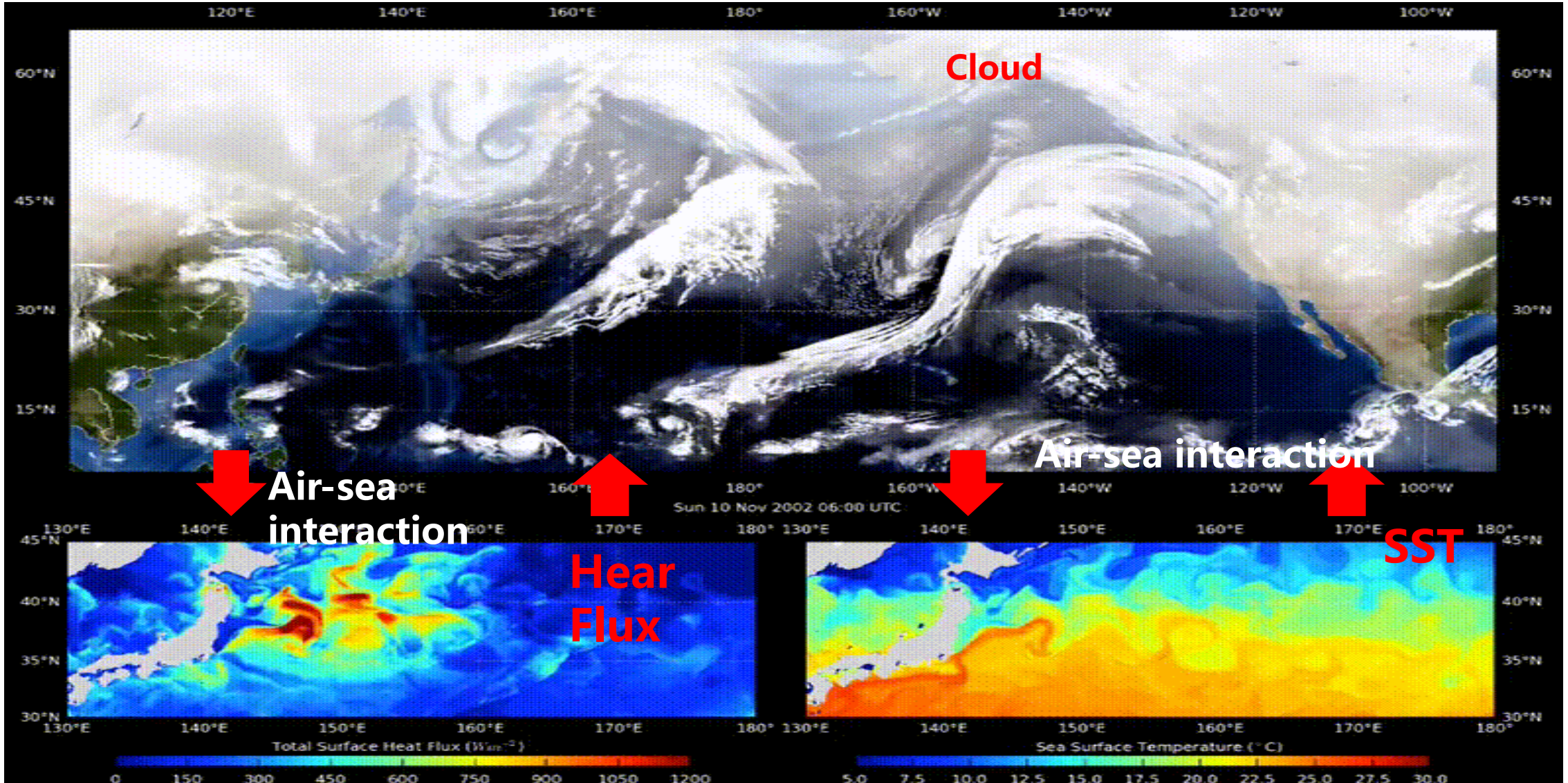


Carbon Sink



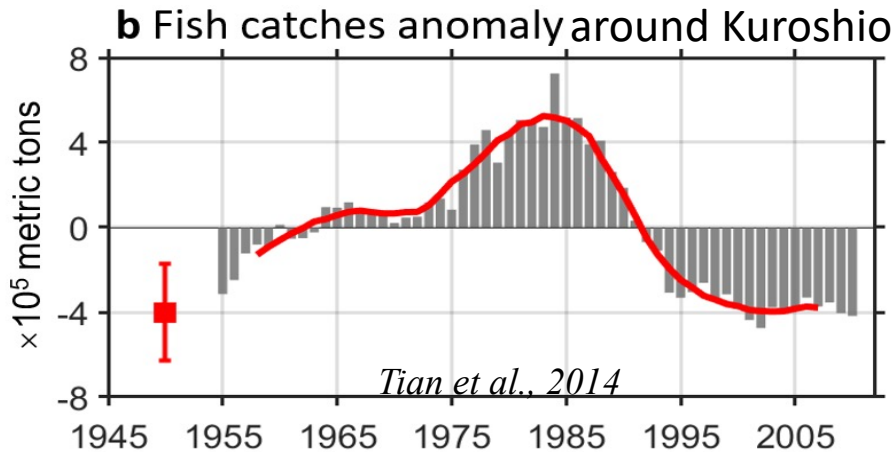
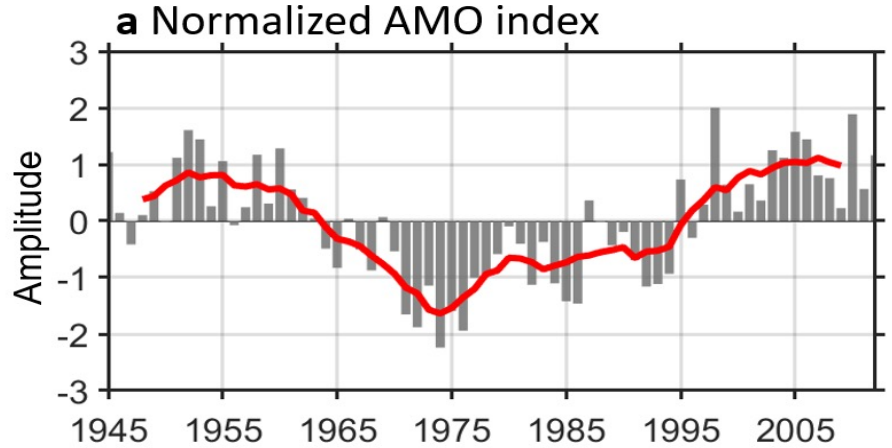
1. Justification

Multi-scale ocean and air-sea processes are unclear

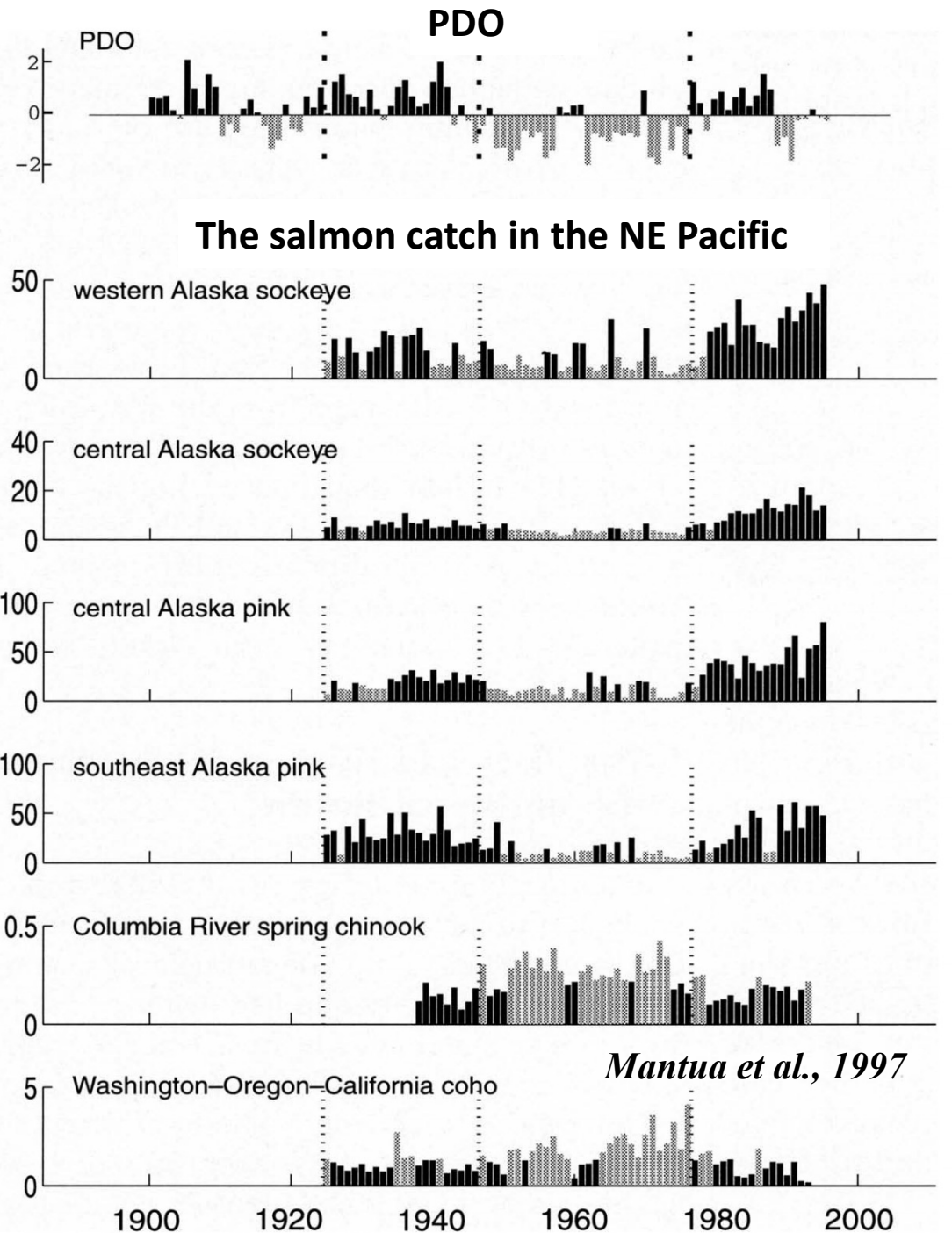


1. Justification

Responses of the Kuroshio and Adjacent Regions to global climate changes, and associated impacts on surroundings and fish catches are still unclear.



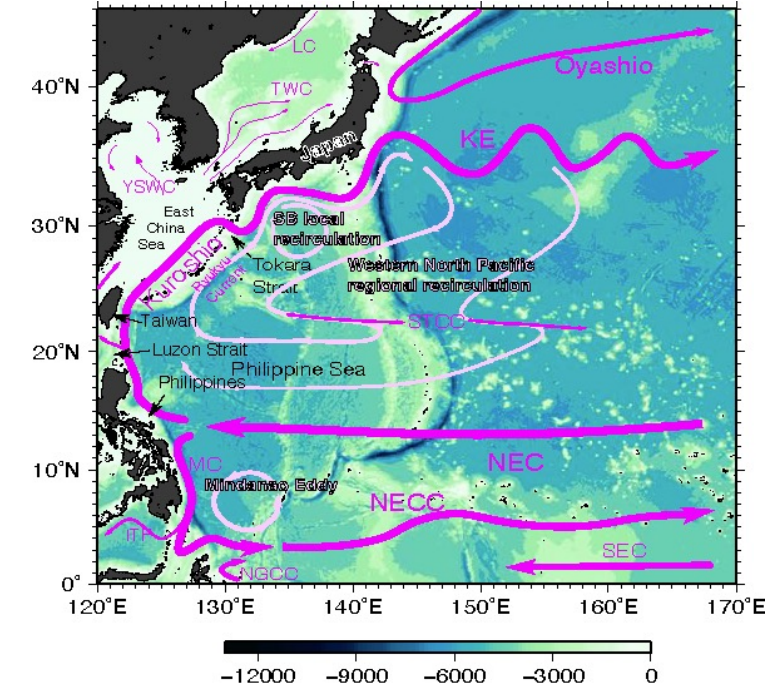
Wu et al. 2020, NCC



2. Brief descriptions of the Decade Action

Objective 1: to understand the Kuroshio and its impact on global and regional weather and climate, with a societal outcome to achieve improved regional weather forecasts and climate predictions;

Objective 2: to understand the Kuroshio in relation to its marine ecosystem, with a societal outcome to achieve better management of regional fisheries and aquaculture along the Kuroshio and in its adjacent regions.



April 2021 – December 2030

2022-2024

Initiatives/projects
Data and Information
Management Plan
Seek more engagements

2024-2026

Scientific products from
initiatives/projects
Data sharing
Co-design with stakeholders

2024-2026

More scientific products
More data
Societal benefits (co-delivery)
via co-production

3. Main progress made since accepted as the Ocean Decade Actions in June 2022



Before 2022:

- Established by IOC/WESTPAC in April 2021,
- The 1st ISG meeting in December 2021
Submit the CSK-2 to UN Decade Action
- CSK-2 was registered as UN-24 in April 2022.
- Science Action Plan, Data Information and Management Plan.

After June 2022:

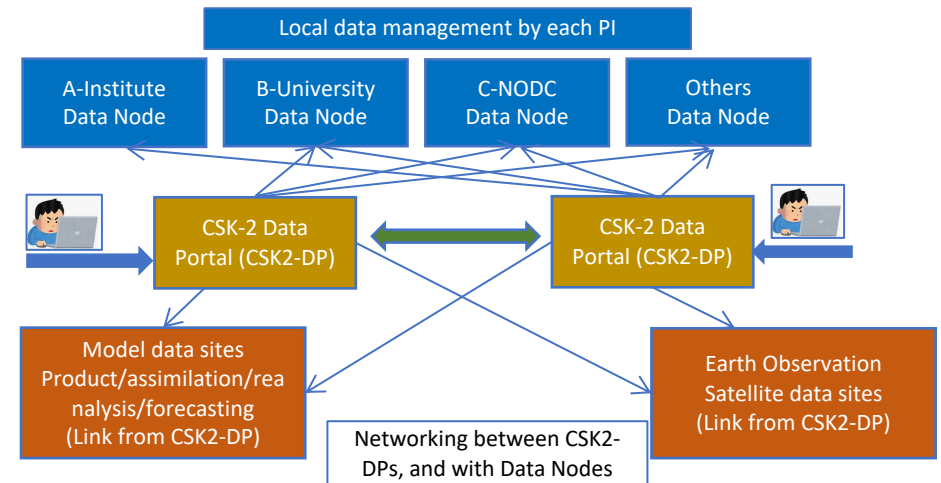
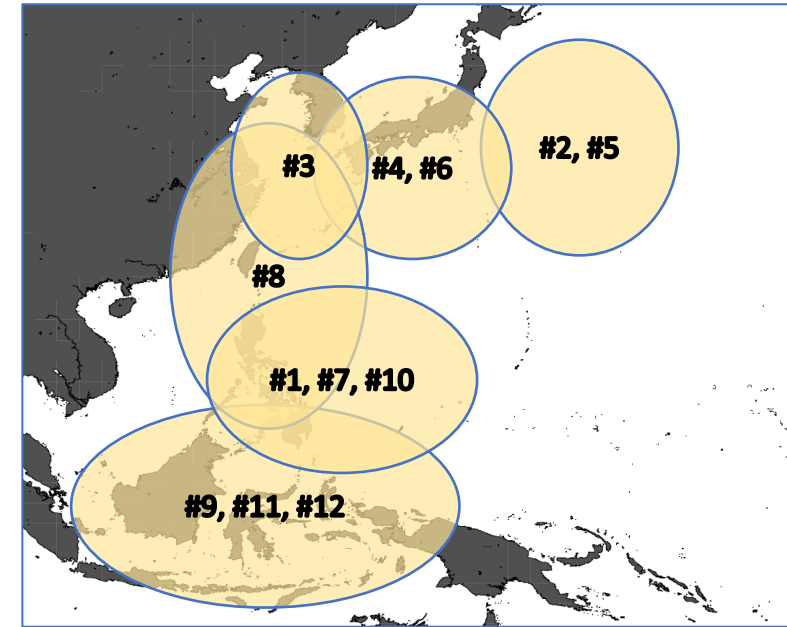
- The 2nd ISG meeting in July 2022.
Call new initiative as Project
Done in November 2022 with 12 proposals submitted
- The 1st international symposium in February 2023 in Bangkok,
Followed by the 3rd ISG meeting
11 proposals were endorsed, 1 for improvement.
National and institutional annual reports
Importance of CSK-2 data system was well recognized
2nd call for project proposal will be take place
ECOP of CSK-2 will start by ECOPs
4th ISG will be hosted by Laoshan Laboratory in Qingdao, China.



4. Plan activities for May 2023-April 2025



1. Scientific papers to be published from endorsed projects/initiatives
2. Some data nodes in operation
3. Data portal sites in operation
4. Support office to be launched
5. More engagements from operational agencies in member states
6. More dialogues with stakeholders
7. Start co-design (or re-design) processes with dedicated stakeholders



4. Plan activities for May 2023-April 2025



Program					Funding Required		Remark
	Activities	Objectives	Expected outputs/outcomes	Date and place	IOC	Other sources (i.e., from national or international)	
	1. 4 th ISG	Discuss way forward	Engagements of operational agencies and young experts	Fall in 2023	0	200K	Laoshan Laboratory
	2. 5 th ISG and 2 nd Science Symposium	Exchange scientific information Discuss way forward	Papers and reports	Spring in 2024	0	200k	Host not determined yet
	3. Session at the WESTPAC Conference	Exchange scientific achievements	Papers and reports	Spring in 2024	0	0	
	4. Decade Incubator at the regional Decade Conference	Develop framework to sustain dialogues with stakeholders	Framework	Spring in 2024	0	0	
	5. 6 th ISG	Exchange scientific information Discuss way forward	Papers and reports	2024	0	200k	Host not determined yet
	6. 7 th ISG and 3 rd Science Symposium	Exchange scientific information Discuss way forward	Papers and reports	2025	0	200k	Host not determined yet



5. Recommendations

- Engagement more experts into the CSK-2 programm
- Cooperate with governments to engage operational agencies in each member state
- A support office is planned

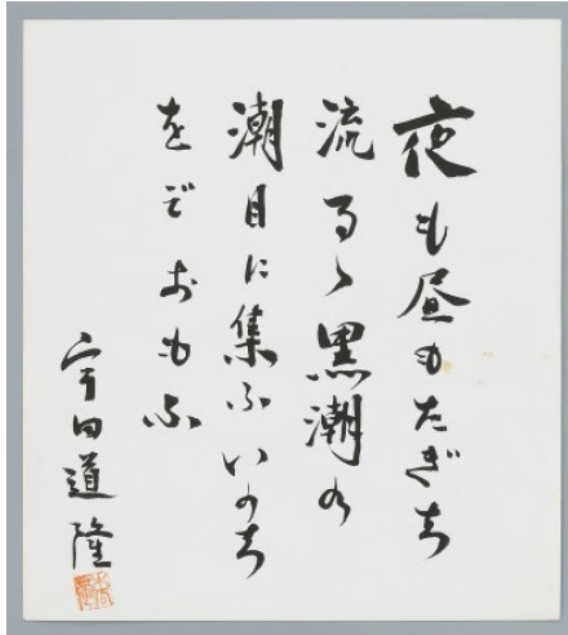


Figure 2.2 Tanka: a Japanese poem of thirty-one syllables by Prof. Michitaka Uda. The poem reads “Thinking of life at ocean fronts “Shiome” in the unceasing Kuroshio, flowing vigorously during day and night.”

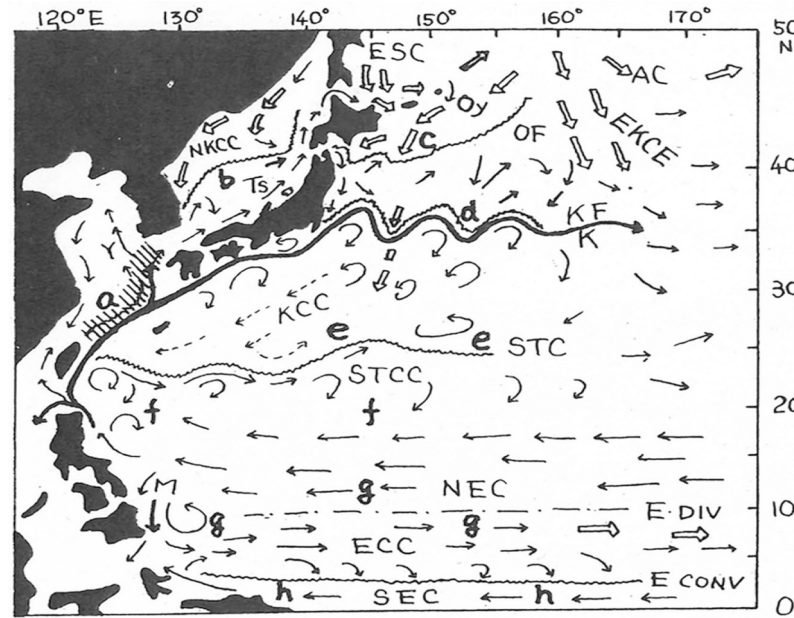


Fig. 1-1. Schematic map of currents, fronts, and fishing grounds (from Uda, 1972).



Thank You

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