



Upwelling studies through ocean data integration towards sustaining ocean health and productivity (UPWELL)

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Guidelines



What

To take stock of the **implementation status** and further catalyze ocean science solutions for sustainable development, this ppt template is designed to:

- Gather information on the **current development status** of the WESTPAC Programme/Project/Working Group, particularly since the Fourteenth Session of the IOC Sub-Commission for the Western Pacific (WESTPAC-XIV) in *April 2023*.
- More importantly, assess its **future development**, along with **potential action plans** for future implementation, i.e., for the period of *2025-2026 and beyond*.

Why

- The Information will facilitate considerations concerning how to harness, stimulate and empower interdisciplinary ocean research that can increase our understanding and inform policy and decision-making.
- It will also aid in improving programme efficiency and effectiveness that will serve the requirement of Member States and the Sub-Commission as a whole.

How

Filling out the following slides, which should not take much time, and return the completed slides to iocwestpac@unesco.org by **20 September 2024**. We appreciate your kind cooperation.

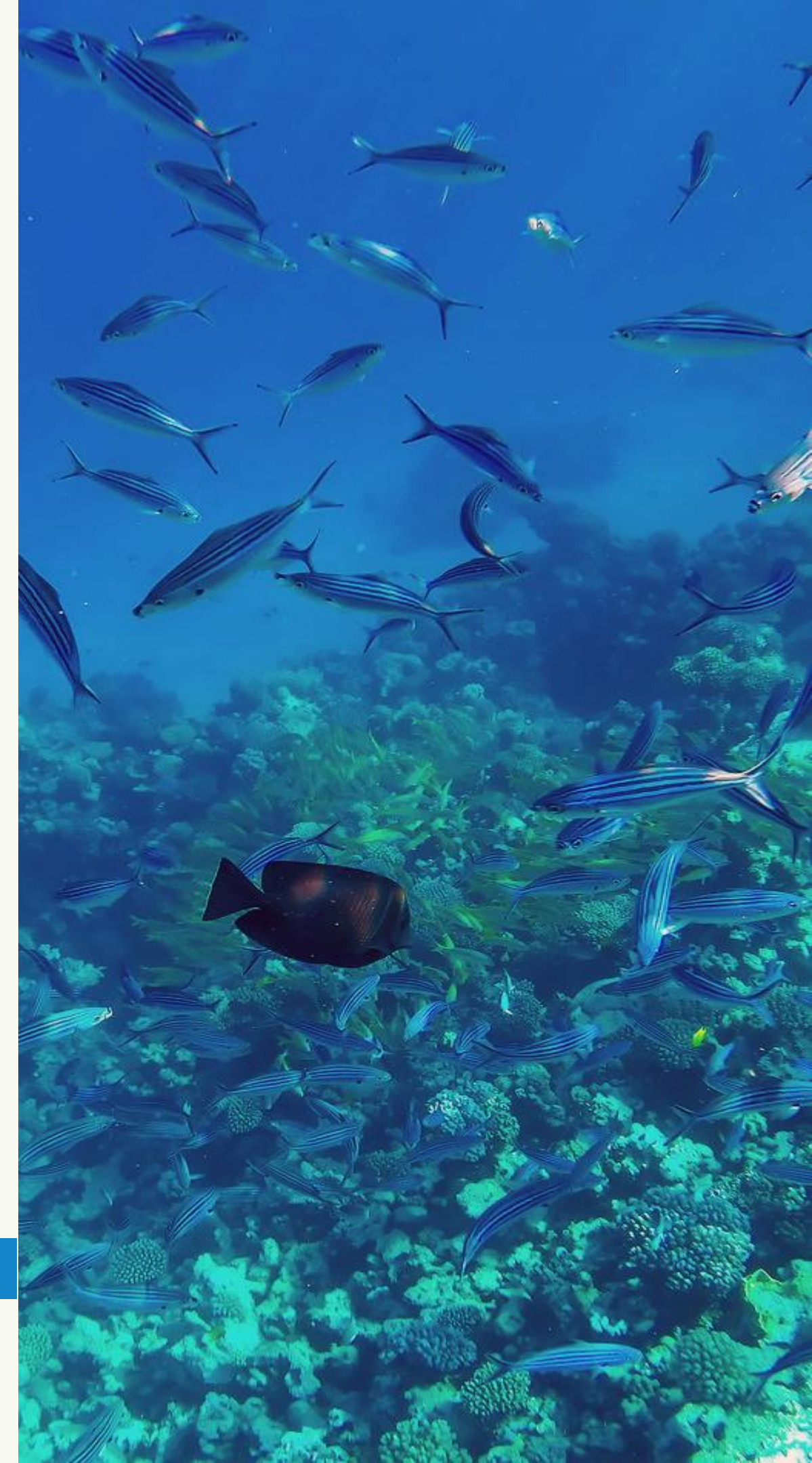
Note:

- *Feel free to use a different slide layout if it better suits your summary content.*
- *Failure to submit will be considered as a lack of substantive activity and may indicate difficulties in continuing the project.*

Summary Outline



1. Justification
2. Objectives
3. Major activities, outputs & outcomes (particular those accomplished during 2023-2024)
4. Problems encountered and recommended actions
5. Strategic considerations/thoughts for future development
6. Potential action plans for 2025-2026 and beyond



1. Justification



(Why this programme/project/working group is needed for the Sub-Commission)

The challenging issues of overfishing, degradation of marine habitat and reduction in fish landing and production demonstrate the urgent need of understanding our ocean health and productivity. An understanding of upwelling system is vital to address these concern where better understanding of the system will allow better planning for resource management and estimation of fish stock assessment. It will be noteworthy contribution not only in managing fisheries resources but also to better prepare us in understanding the health of ocean ecosystem and also enhancing knowledge of emerging ocean science issue of ocean productivity in this changing climate.

It is the right time for us to concentrate our effort on the health and productivity of the ocean particularly in our East Asia Seas. We are facing many threats in the ocean nowadays. Climate change, ocean acidification, pollution, overfishing, HAB, and endangered and charismatic species extinction has always been our primary concern regarding the ocean. Nevertheless, upwelling dynamics in other perspective holds a very important values that require special treatment if we are serious in managing our ocean resources. Every aspect of the ocean are interconnected, both managing resources and understanding threat hold similar importance that will help us provide solution for the ocean.

2. Objectives



1. To establish scientific information of upwelling sites within South China Sea and adjacent sea in a form of database, website and scientific reference to enhance accessibility of the scientific information to various stakeholders.
2. To produce data analysis technique on the investigation of productivity of upwelling site with emphasis on dynamics, biogeochemistry and climate change through observation data and numerical modeling data products.

3. Major activities, outputs & outcomes



Latest accomplishment, particular those during 2023 to 2024

Major activities

- Online Workshop
- Website update
- Book Publishing Meeting

Integrated Data Analysis Approach for Coastal Upwelling Studies



Outputs & Outcomes

- Contribute to the regional understanding of upwelling dynamics and possibly a discovery of new upwelling area through comparative studies and learning exchange
- Build a standard data monitoring technique that is more cost-effective and simplify task in providing continuous spatial data monitoring related to upwelling site
- Provide important information and share new findings with different groups that involves with relevant stakeholders including fisheries related industries, scientific community and local community

Timeframe

Project start year: 20XX



4. Problems encountered & recommended actions



Challenges encountered

- Communication and meetings delays
- Developing and conducting training program online
- Attract additional member from other countries

Suggested actions, if any,

- Contact members individually for prompt reply
- Update some of our training content and make it compatible with online teaching.
- Our previous Online workshop has provided us with many contact from the region, who are interested with the topics. So, we need to use this opportunity to communicate our program.

Timeframe

Project start year: 20XX

5. Strategic considerations/thoughts for future development



- Providing a resourceful website with a very comprehensive up to date information regarding upwelling in the
- Update research information on 13 upwelling site decided from the workshop for easy reference among scientific community
- Publish a Book (by Chapters) that can provide insightful information and research resources for scientific community.
- Conduct training for young scientist on upwelling integrated data analysis



6. Potential action plans for future implementation




for the period of 2025-2026 and beyond

- Providing a resourceful website with a very comprehensive up to date information regarding upwelling in the
- Update research information on 13 upwelling site decided from the workshop for easy reference among scientific community
- Publish a Book (by Chapters) that can provide insightful information and research resources for scientific community.

Planned activities



Program	Plan				Funding Required		Remark
	Activities	Objectives	Expected outputs/outcomes	Date and place	IOC	Other sources (i.e. from national or international)	
	1. 3 rd Upwelling workshop	- Conduct a workshop to discuss the progress of development work of the upwelling program	New and updated scientific progress • Come up with a strategic plan to enhance the outcome of this project through different Outlets	Feb 2025 Malaysia			

						  
	2. . Young Scientist Training: Integrated data analysis for upwelling study	Conduct training for young scientist on upwelling dynamics and integrated data analysis.	Prepare researcher a Systematic technique in accessing available ocean data from different sources and integrated the information to study specific study area	Nov 2025		
	Publication of books with chapter contribution from upwelling team members and invited researchers	<p>To develop a group that will plan, support and execute the publications effort for upwelling books</p> <p>To publish scientific output of upwelling studies in the region of Asia-Pacific in a form of chapters in book.</p>	Published Book with at least 10 chapters, by highly reputed publisher (i.e. Springer, Elsevier or MDPI)	2026		



Thank You

Name



Tel



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Website

