



# The 32<sup>nd</sup> Session of the IOC Assembly

## Key accomplishments over the last intersessional period and major results of the WESTPAC –XIV (4-6 April 2023)

Kentaro Ando, Wenxi Zhu, Fangli Qiao, Tan Shau Hwai, Fadli Syamusdin

Vo Si Tuan, Zainal Arifin, Gil Jacinto, Youn-Ho Lee, Somkiat Khokiattiwong, Weidong Yu

IOC Sub-Commission for the Western Pacific, IOC/UNESCO

### Agenda 3.3.2

Please refer to the full report (IOC/SC-WESTPAC-XIV)

# Part 1-1: Mobilize Actions for the UN Ocean Decade



2021/ China



World Oceans Day, 8 June 2021, Qingdao, China

2021/Thailand



Science for Sustainable Use of the Oceans, 28 September 2021, Thailand

2021/UNESCAP



UNESCAP Asia-Pacific Day for the Ocean, 27 October 2021, online

2022/Indonesia



International Workshop on Small Island Studies, 19-20 August 2022, Jakarta, Indonesia

2021/Thailand



National Workshop on the UN Decade of Ocean Science 1 December 2021, Bangkok, Thailand

2022/the Philippines



East Asia Summit Workshop on Maritime Cooperation "Technical and Scientific Cooperation Towards Clean, Healthy, and Sustainable Oceans", August 30 - September 1, 2022, Manila, Philippine

2022/ China



IOI International Training on Ocean Governance 7 September 2022, Tianjin China



# Part 1-1: Mobilize Actions for the UN Ocean Decade



- More than **3,000** participants/viewers
- High Level Commitments & Stakeholder Roundtable Dialogue
- Voice from the Youth
- **17** UN Ocean Decade Incubators



## UN Ocean Decade Kickoff Conference for the Western Pacific and its Adjacent Areas

Watch the Opening on November 25 at 1300-1520 Bangkok (UTC+7)

Watch the conference livestream



Cholaphana Narula UN Youth	Alex Rendel UN Youth
Participant logging in	
H.E. Varasud Silparachit Minister, Ministry of Natural Resources and Environment, Thailand	H.E. Ambassador King Ou Minister, Ministry of Natural Resources and Environment, Thailand
Opening	
Vladimir Ryabinin Executive Secretary, IOC, Khabarovsk Office	
Introduction to the Ocean Decade – "The Ocean Science We Need for the Ocean We Want"	



**1330-1420 High-Level Segment** – The ocean sustains lives and livelihoods, we must "think globally and act locally" to "make peace with nature to deliver a prosperous and equitable world for all, leaving no one behind".

H.E. Hong Wang Vice Minister, Ministry of Natural Resources, China	H.E. Laksana Tri Handoko Chair, National Research and Innovation Agency, Indonesia	H.E. Takashi Yanagi Senior Deputy Minister, Ministry of Education, Culture, Sports, Science and Technology, Japan	H.E. Dato' Mansor Bin Haji Othman Deputy Minister, Ministry of Environment and Water, Malaysia	H.E. Ambassador Ma Theresa Parreno Lazaro Undersecretary, Department of Foreign Affairs, the Philippines	H.E. Armida Salsiah Alisjahbana Executive Secretary, The United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP)	H.E. Shigeru Aoyagi Director, Asia and Pacific Regional Bureau for Education, UNESCO

**1420-1515 Stakeholder Roundtable Dialogue** – The ocean and ocean science hold answers to many defining challenges plaguing humanity. How could we unlock these solutions to sustainable development challenges in the region?

Panelists

Renato U. Solidum, Jr. Undersecretary, Department of Science and Technology (DOST), the Philippines	Minhan Dai Academician of Chinese Academy of Sciences, Xiamen University, China	Hide Sakaguchi President, Ocean Policy Research Institute of The Sasakiwa Peace Foundation	Montri Rawanchaikul CEO, PTT Exploration and Production Public Company Limited	Maeva Nightingale Senior Programme Officer, IJCN	Seung-Tae Yoon Early Career Ocean Professional, Kyungpook National University, Republic of Korea



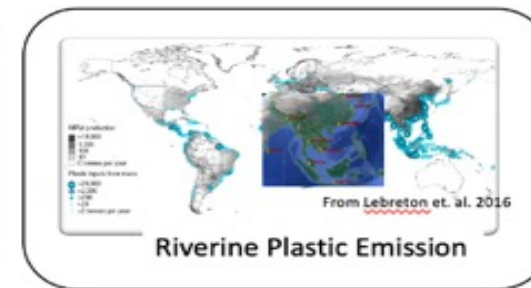
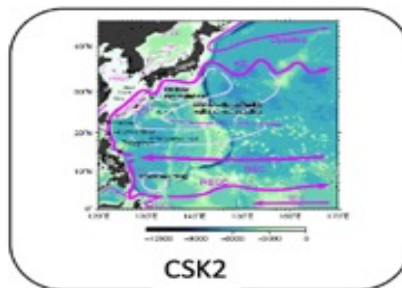
<https://www.ioc-westpac.org/decade-kickoff-conference/program/>

# Part 1-1: Mobilize Actions for the UN Ocean Decade



## Four Sub-Commission's actions jointly developed and accepted as UN Decade Actions (Programme/Project)

- **UN 24**---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
- **UN 23**---Accelerating capacity development transformations in the Western Pacific - Regional Network of Training and Research Centers (RTRCs) on Marine Science
- **UN 22**---Stem the tide of Asia's riverine plastic emission into the ocean
- **UN 21**---Accelerate Marine Spatial Planning in the Western Pacific and its Adjacent Areas



DCO is in the extending WESTPAC office with the support of all countries !



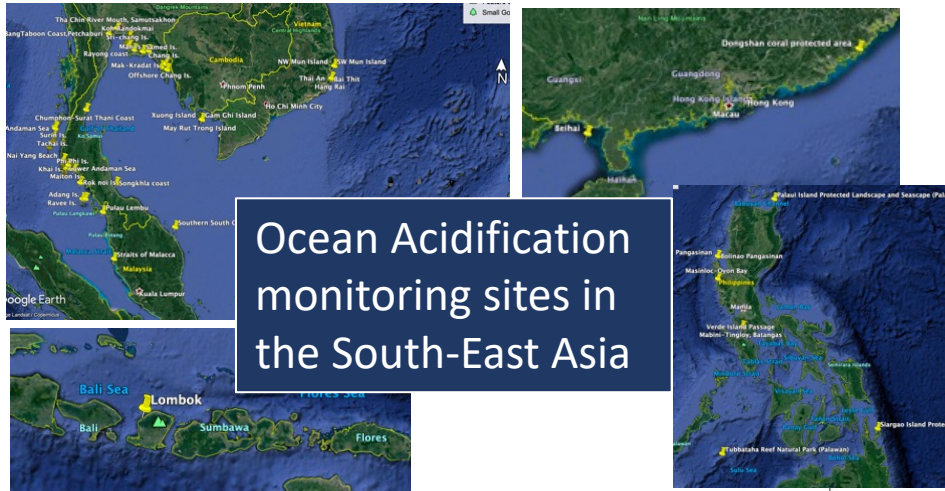
# Part 1-2: Delivering knowledge and services for Sustainable Development



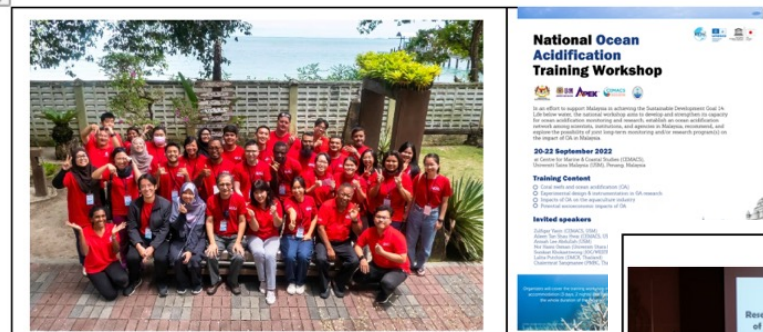
## Minimize and Address the Impacts of Ocean Acidification

National training and stakeholder engagement workshops in

Malaysia (Penang, 20-22 September 2022),



Ocean Acidification monitoring sites in the South-East Asia



National OA training and stakeholder engagement workshops in Malaysia (Penang, 20-22 September 2022)



National OA training and stakeholder engagement workshops in Thailand (Phuket, 2-4 November 2022)

### Intercalibration Exercise on pH & Total Alkalinity Measurement

January - August 2022

The IOC Sub-Commission for the Western Pacific (WESTPAC) seeks to support our Member States throughout the region in preparing for and responding to ocean acidification by improving research capacity, transferring marine technology, and advancing our understanding of ocean acidification and its impacts on ocean ecosystems.

**Objectives**

- To acquire a good understanding of the quality of reference pH and TA measurements in the region.
- To enhance capacity for ocean acidification monitoring and analysis and eventually assist Member States in achieving SDG 14.3.

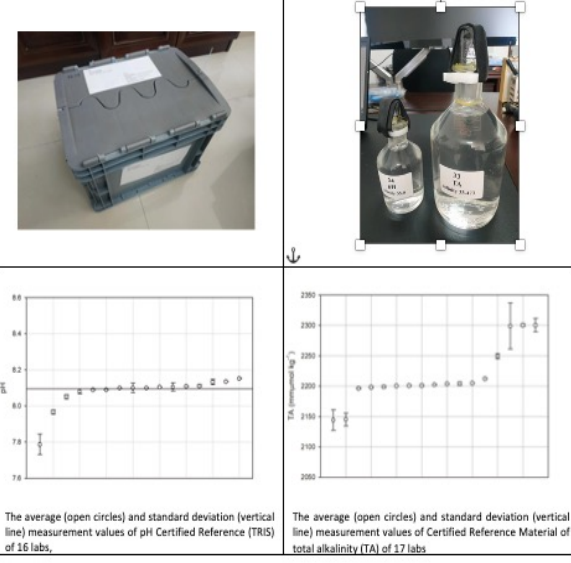
**Intercalibration Process**

The two bottles of Reference Materials (RM) will be shipped to participating laboratories and must be opened within one month after they are received.

For more details on technical arrangement, please download a Technical Guideline and Data Report Form here.

**Participating Organizations**

For any inquiries, please email [iocwestpac@unesco.org](mailto:iocwestpac@unesco.org)



National training and stakeholder engagement workshops in Vietnam (Nha Trang, 13-15 October 2022)



Thailand (Phuket, 2-4 November 2022)

Vietnam (Nha Trang, 13-15 October 2022)



# Part 1-2: Delivering knowledge and services for Sustainable Development



## Advance the Application of Remote Sensing for Sustainable Development

**International Webinars on**  
Advancing Remote Sensing Applications for the Sustainable Development of Oceans, Marine and Coastal Resources

Webinar Series | Week 1  
Date: Tue 22<sup>nd</sup> November 2022  
Time: 9:30-11:00 AM (GMT+7)

**CALL FOR SPEAKERS**

**Objectives**

1. To facilitate an exchange of remote sensing knowledge and experiences
2. To discuss and explore the application of remote sensing in marine and coastal resource management
3. To discuss and explore the use of remote sensing in marine and coastal resource management

**Webinar speakers are expected to:**

1. Present a paper or poster on a remote sensing application in marine and coastal resource management
2. Present a paper or poster on a remote sensing application in marine and coastal resource management
3. Present a paper or poster on a remote sensing application in marine and coastal resource management
4. Present a paper or poster on a remote sensing application in marine and coastal resource management

**Submission of proposals**  
Deadline: 18 October 2022

Webinar program will be available by 10 October 2022 at [www.unesco.org](http://www.unesco.org)

**International Webinars on**  
Advancing Remote Sensing Applications for the Sustainable Development of Oceans, Marine and Coastal Resources

Webinar Series | Week 1  
Date: Tue 22<sup>nd</sup> November 2022  
Time: 9:30-11:00 AM (GMT+7)

**Dr. David Marnett**  
NSW Director for Reef Research & Science (NSW)

**Dr. Tomohisa Komatsu**  
Japan Fisheries Resources Conservation Association (Japan)

**Dr. Torayoshi Sugawa**  
Tohoku University of Environmental Studies (Japan)

**International Webinars on**  
Advancing Remote Sensing Applications for the Sustainable Development of Oceans, Marine and Coastal Resources

Webinar Series | Week 2  
Date: Tue 29<sup>th</sup> November 2022  
Time: 9:30-11:00 AM (GMT+7)

**Dr. Wanying Shuchin**  
Fuzhou University (China)

**Dr. Nanyang Nanda**  
Purworejo University (Indonesia)

**Dr. Huiying Cao**  
State Key Laboratory of Satellite Ocean Environment Dynamics (China)

**International Webinars on**  
Advancing Remote Sensing Applications for the Sustainable Development of Oceans, Marine and Coastal Resources

Webinar Series | Week 3  
Date: Tue 6<sup>th</sup> December 2022  
Time: 9:30-11:00 AM (GMT+7)

**Dr. Huiying Cao**  
State Key Laboratory of Satellite Ocean Environment Dynamics (China)

**Dr. Haoguo Zhang**  
State Key Laboratory of Satellite Ocean Environment Dynamics (China)

**Dr. Kim Rasmussen**  
University of Exeter (England)

**International Webinars on**  
Advancing Remote Sensing Applications for the Sustainable Development of Oceans, Marine and Coastal Resources

Webinar Series | Week 4  
Date: Tue 13<sup>th</sup> December 2022  
Time: 9:30-11:00 AM (GMT+7)

**Dr. Wanying Shuchin**  
Fuzhou University (China)

**Dr. Anucha Promkanya**  
Suranaree University (Thailand)

**International Webinars on**  
Advancing Remote Sensing Applications for the Sustainable Development of Oceans, Marine and Coastal Resources

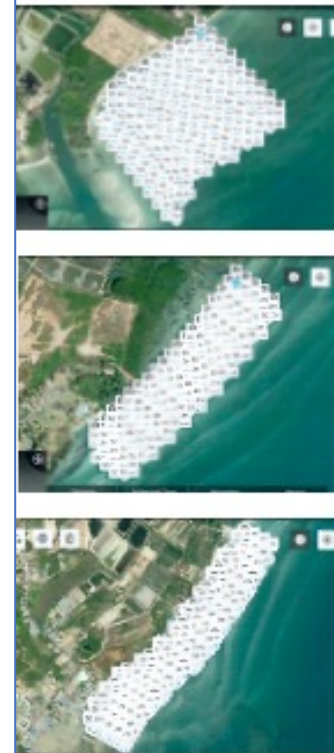
Webinar Series | Week 5  
Date: Tue 20<sup>th</sup> December 2022  
Time: 9:30-11:00 AM (GMT+7)

**Dr. Huiying Cao**  
State Key Laboratory of Satellite Ocean Environment Dynamics (China)

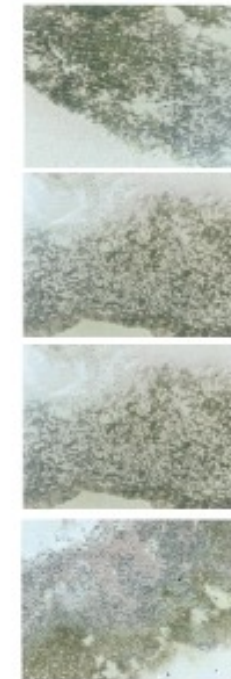
**Dr. Genki Terachi**  
Nagasaki University (Japan)

**Dr. Torayoshi Sugawa**  
Tohoku University of Environmental Studies (Japan)

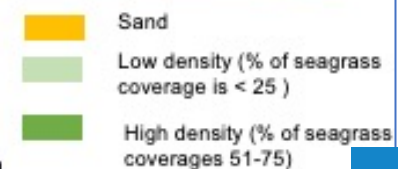
Photos taken by drone at each point



Examples of seagrass photos taken by drone for further processes and input in the GEE processes.



The result of the GEE analysis found the coverage of seagrass in 3 sites is 0.72 km<sup>2</sup>



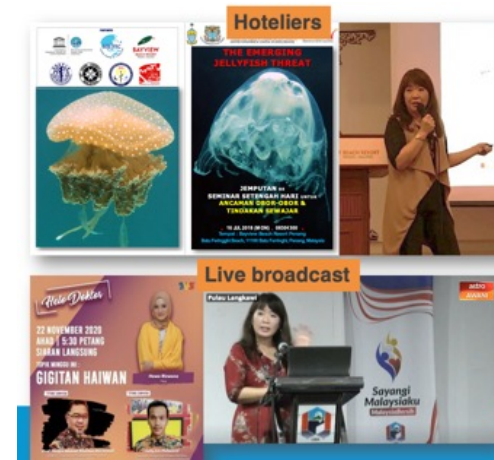
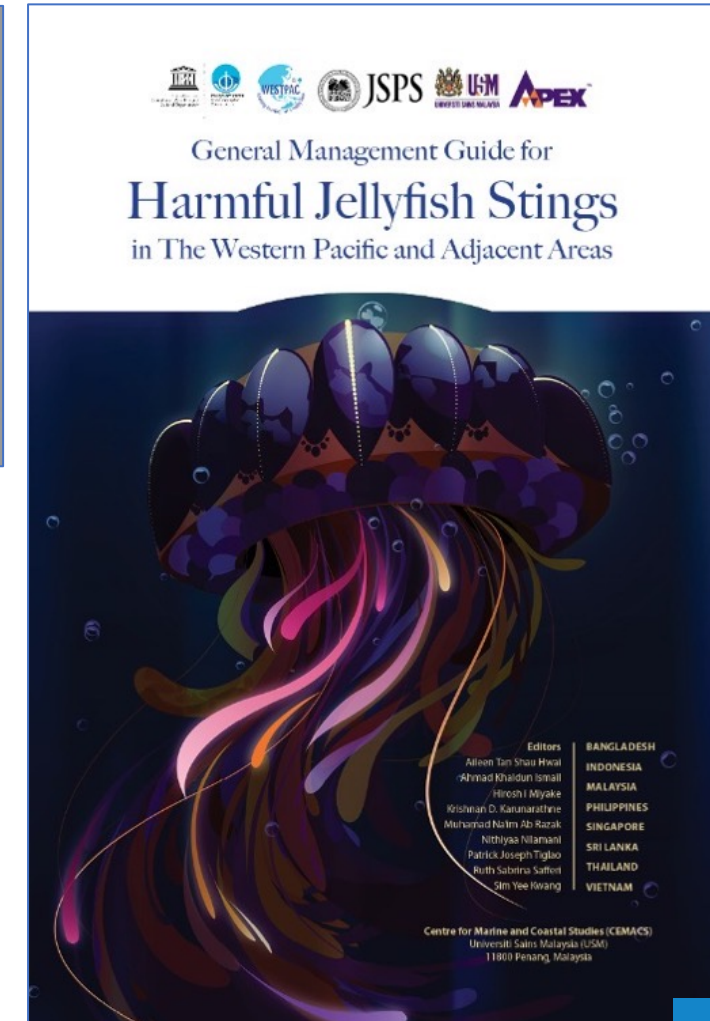
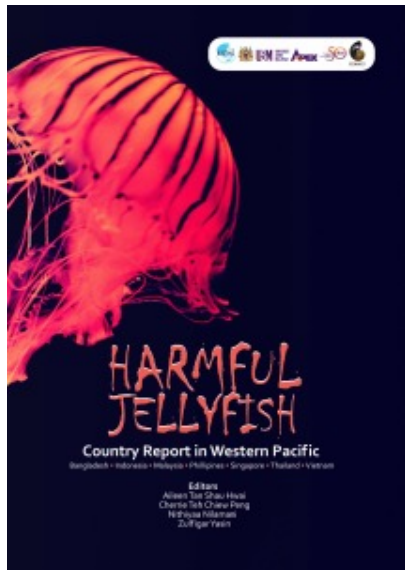
Ao Ma Kham Pom, Rayong Province, Thailand



# Part 1-2: Delivering knowledge and services for Sustainable Development



## Delivering Knowledge on Harmful Jellyfish for Public Health



Public awareness and community services

Science for society, Headlines, The Star, July 2020

# Part 1-2: Delivering knowledge and services for Sustainable Development



## Accelerate Marine Spatial Planning in the Western Pacific- UN 21 & MSP Global 2.0

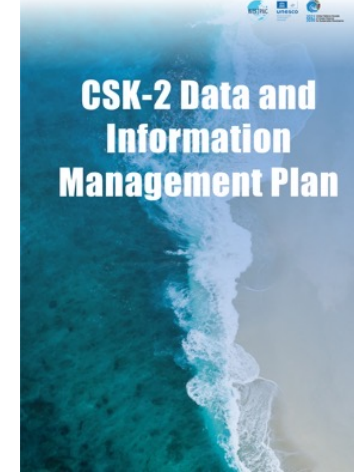
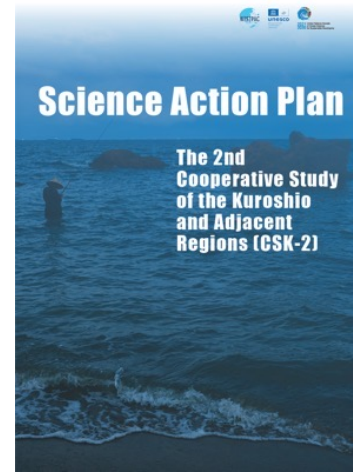


December 2022

- Regional Dialogue for Accelerating Marine Spatial Planning in the Western Pacific

Then, Published “Regional MSPforum for Western Pacific and its Adjacent Areas – 1<sup>st</sup> edition” as an event report.

## 2<sup>nd</sup> Cooperative Study of Kuroshio and Adjacent Areas (CSK-2)–UN24



3 times of Steering Group Meetings from eight (8) MSs (China, Indonesia, Japan, Korea, Philippine Russia, USA, Vietnam)

## WG on Gas Hydrates and Methane Fluxes and their Impact on Climate, Ecosystem and Socio-Economic Development

1<sup>st</sup> CoSGas meeting, March 18, 2022, 15 participants: China, India, Indonesia, Japan, New Zealand, Russia, Vietnam

## WG on Integrated Investigation in Indo-Pacific Convergence Center: Marine Ecosystem and Biodiversity

Organized two Scientific Committee meetings to identify the priority areas and common interests in the Indo-Pacific Convergent Center



# Part 1-3: Capacity Development Strategy and Actions



“Development of “UNESCO/IOC Regional Network of Training and Research Centers (RTRCs) on Marine Science””

“Training Through Research” via the engagement of early career scientist into WESTPAC research programmes

Establishment of “WESTPAC Best Young Scientist Award” and “WESTPAC Young Scientist Grant”

Initiation of “WESTPAC Young Scientist Forum” to exchange their perspective on marine science development and cooperation

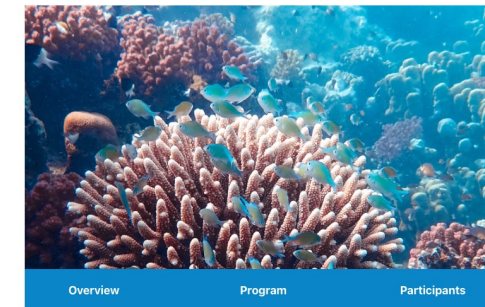
Conduct of “Bring Marine Science to School” to inspire young generations/school



RTRC-ODC: 11<sup>th</sup> meeting in China

## Training Workshop on Coral Larval Reseeding, Bolinao, Pangasinan, Philippines

03 Apr 2023 @ 9:00 am - 13 Apr 2023 @ 6:00 pm UTC+8



RTRC in Philippine on Coral Reseeding

**PROGRAMME BOOK**

**MANGROVE MONITORING INTERNATIONAL TRAINING**  
October 29<sup>th</sup> – November 6<sup>th</sup> 2021

Sponsored by  
COREMAP CTI Programme  
United Nations Development Programme

Hosted by  
National Research & Innovation Agency (BRIN)  
Archipelagic & Island States (AIS) Forum

2021

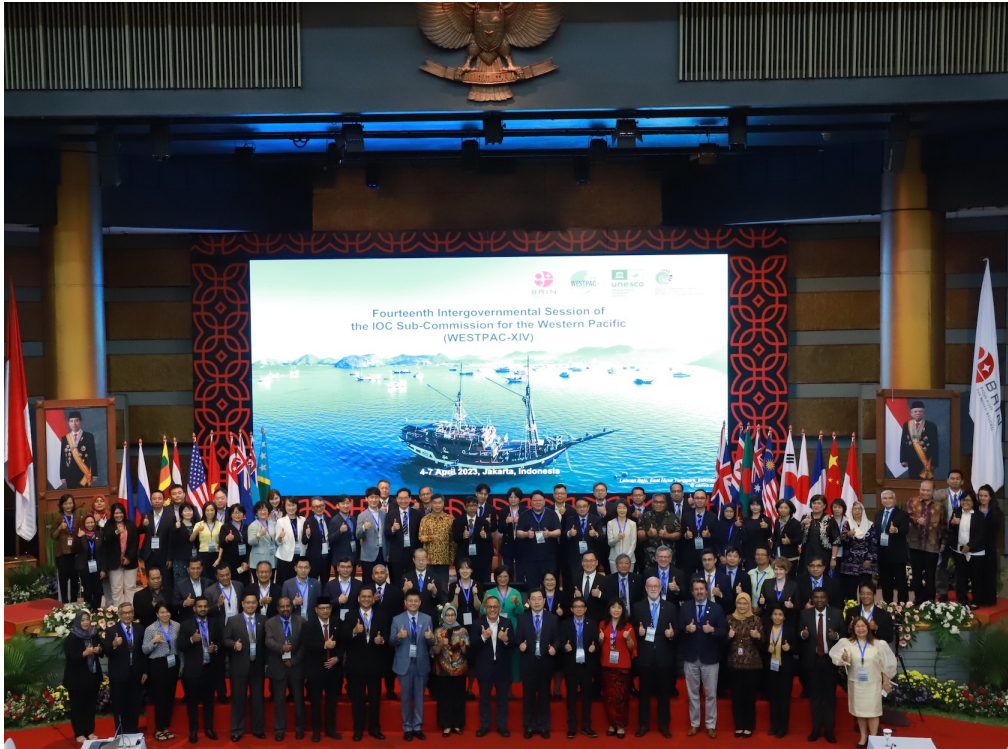
## Mangrove Monitoring International Training

29 Aug 2021 @ 1:30 pm - 06 Nov 2021 @ 4:00 pm UTC+7



RTRC-MarBEST in Indonesia on Mangrove Monitoring

# Part 2: Major results WESTPAC-XIV, 4-6 April, Jakarta, Indonesia



- Results of elections

- Kentaro Ando (Chair), Aileen Tan (Vice Chair), Fadli Syamsudin (Vice Chair)

- Next Session

- March or April 2025 in Tokyo Japan

- Establishment of new Working Groups

- Small Island Research and Development
- Blue carbon Actions in the Western Pacific
- Advancing Marine Citizen Science
- Traditional and Local Knowledge

- Establishment of RTRC

- Coastal Contaminant Monitoring and Marine Innovative Technologies (RTRC-Coastal COMMIT)

- Senior Governmental Official meeting

- Jakarta Statement for fostering UN Decade of Ocean Science in the region and further contribution to our globe

- Programme and Budget:

- Adopted the Programme and Budget for 2023 to 2025, with a total budget estimate of USD3.4 M
- Have to be carried out via extrabudgetary support from Member States, either in cash or in kind








- Side event: National Decade Committee forum

- Pro. Yutaka Michida and Dr. Youn-Hoo Lee led the event
- Share experiences and lessons learned in the development
- Discuss how NDCs could further demonstrate their value



# DECADE OUTCOMES

## "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**

## WESTPAC KEY AREAS OF ACTIONS

**A: Ocean processes and climate change**

**B: Marine biodiversity seafood safety and security, blue economy**

**C: Ocean ecosystem and public health**

**D: Enhanced knowledge for emerging issues**

## WESTPAC PROGRAMMES/WORKING GROUPS 2023-2025 (total number: 29 including RTRCs)



**A 1: NEAR-GOOS**  
**A 2: Ocean Forecasting (SEA-GOOS)**  
**A 3: Ocean Acidification (SEA-GOOS)**  
**A 4: Changing Asian Marginal Seas and their responses**  
**A 5: Upwelling studies through data integration towards ocean health**  
**A 6: South China Sea Fluvial Sediment and its Environmental Changes**  
**UN 24: 2<sup>nd</sup> Cooperative Study of Kuroshio and its adjacent areas**

**B 8 Coral Reef Conservation, Restoration and Resilience**  
**B 9: DNA taxonomy and recruitment monitoring-environment DNA**  
**B 10: Marine toxins and seafood safety**

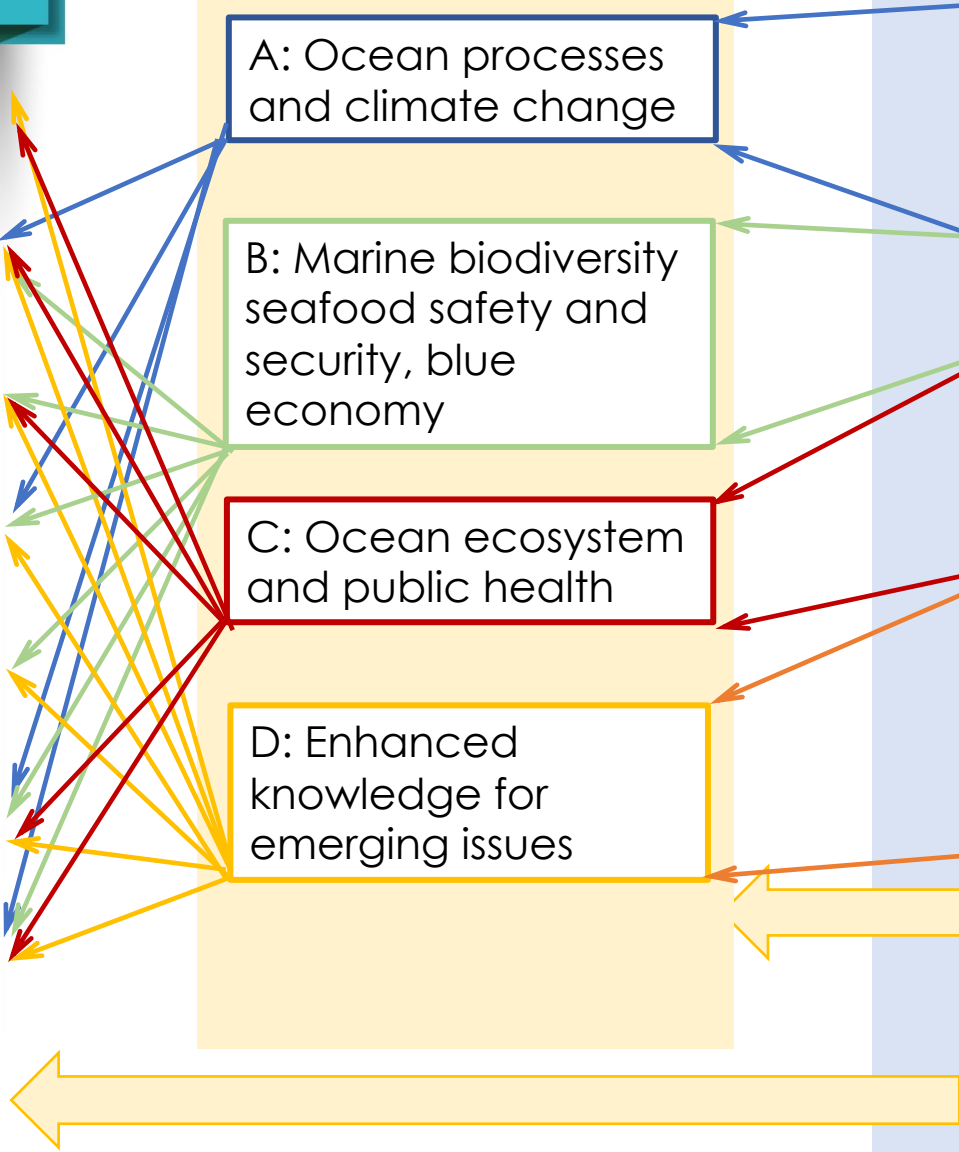
**UN 21: Marine Spatial Planning**

**C 12: Ocean remote sensing for habitat mapping**  
**C 13: Harmful jellyfish research and monitoring**  
**C 14: Harmful algae blooms**  
**UN 22: Asian rivers' plastic input to ocean**

**WG2019: Ocean Oxygen Network (WG)**  
**WG2021: Rapid Detection Techniques for Harmful Algal Blooms**  
**WG2021: Gas hydrate and methane flux**  
**WG2021: Indo-Pacific Convergent Center**  
**WG2023: Small island research and development**  
**WG2023: Blue carbon actions**  
**WG2023: Citizen science**  
**WG2023: Traditional and local knowledge**

**UN 23: Regional Network of Training and Research Centers (RTRCs) on Ocean Science**

- RTRC on Marine Biodiversity and Ecosystem Health (BRIN, Indonesia)
- RTRC on Ocean Dynamics and Climate (FIO/MNR, China)
- RTRC on Marine Toxins and Seafood Safety (IO/VAST, Vietnam)
- RTRC on Coral Reef Restoration and MPAs (UPMSI, Philippines)
- RTRC on Plastic and Microplastic Research (ECNU, China)
- RTRC on Coastal Contaminant Monitoring and Marine Innovative Technology (CityU, Hong Kong SAR, China)



# Operation of the WESTPAC Office / Decade Coordination Office

## - New Era and Big Challenge to the UN Ocean Decade -



### WESTPAC PROGRAMMES/WORKING GROUPS

**2023-2025 (total number: 29 inc. RTRCs)**



A 1: NEAR-GOOS  
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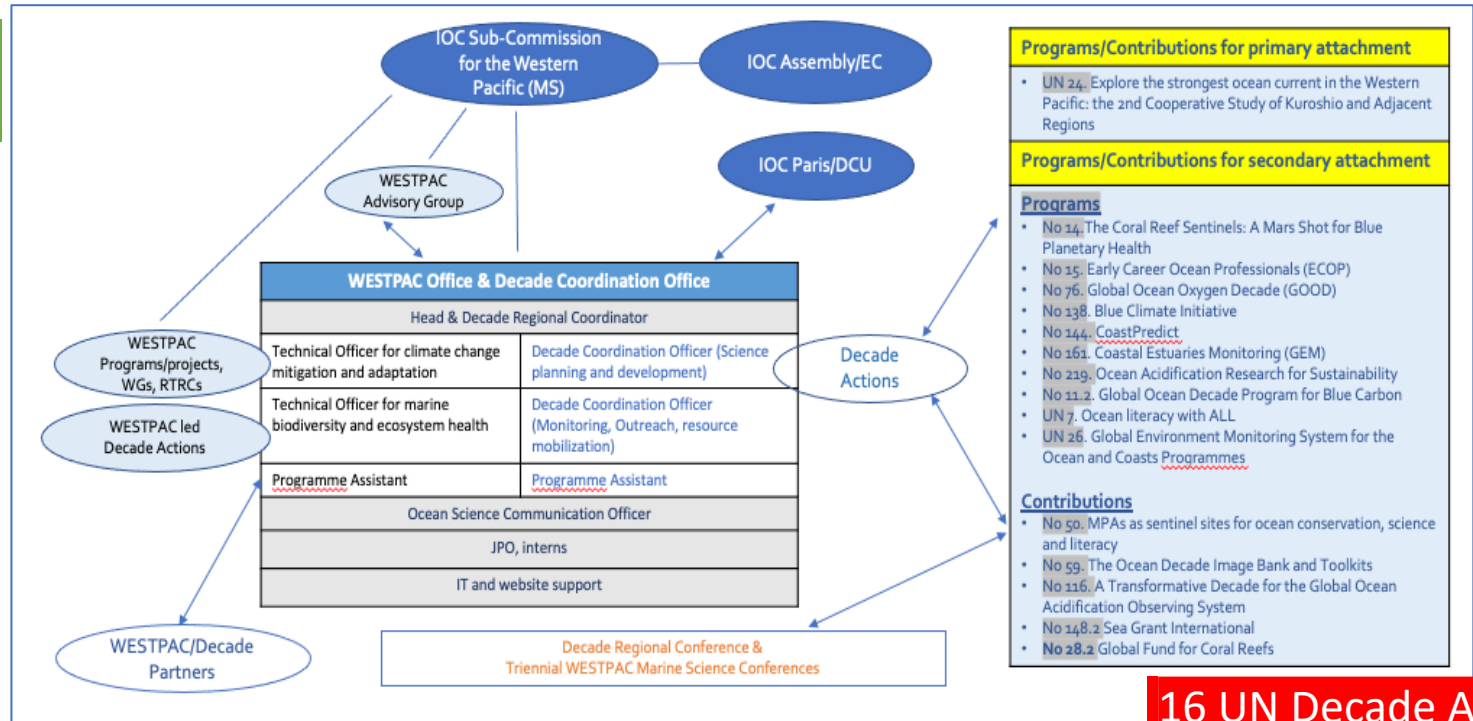
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- RTRC on Coastal Contaminant Monitoring and Marine Innovative Technology (CityU, Hong Kong SAR, China)



Programs/Contributions for primary attachment
<ul style="list-style-type: none"> <li>• UN 24. Explore the strongest ocean current in the Western Pacific: the 2nd Cooperative Study of Kuroshio and Adjacent Regions</li> </ul>
Programs/Contributions for secondary attachment
<p><b>Programs</b></p> <ul style="list-style-type: none"> <li>• No 14. The Coral Reef Sentinels: A Mars Shot for Blue Planetary Health</li> <li>• No 15. Early Career Ocean Professionals (ECOP)</li> <li>• No 76. Global Ocean Oxygen Decade (GOOD)</li> <li>• No 138. Blue Climate Initiative</li> <li>• No 144. CoastPredict</li> <li>• No 161. Coastal Estuaries Monitoring (GEM)</li> <li>• No 219. Ocean Acidification Research for Sustainability</li> <li>• No 11.2. Global Ocean Decade Program for Blue Carbon</li> <li>• UN 7. Ocean literacy with ALL</li> <li>• UN 26. Global Environment Monitoring System for the Ocean and Coasts Programmes</li> </ul> <p><b>Contributions</b></p> <ul style="list-style-type: none"> <li>• No 50. MPAs as sentinel sites for ocean conservation, science and literacy</li> <li>• No 59. The Ocean Decade Image Bank and Toolkits</li> <li>• No 116. A Transformative Decade for the Global Ocean Acidification Observing System</li> <li>• No 148.2 Sea Grant International</li> <li>• No 28.2 Global Fund for Coral Reefs</li> </ul>

**16 UN Decade Actions**

Works in the office include to support **29 Programme/Project/Working Groups/RTRCs** in WESTPAC, plus **16 UN Decade Actions**, to **conduct several AG meetings**, one **Intergovernmental Session**, one **International Marine Science Conference**, one **Regional Decade Conference**, and also to serve as regional **DCO** to coordinate with DCU and others.

**Need further supports from Member States to the office**



# Future Directions

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1. **Ocean research impacts** to be greatly enhanced, with the following approach to future programme development

- Issue-based, solution-oriented approach, responding to **national and regional priorities**
  - Define “SMART” objectives
  - Involve end users, engage key stakeholders--- uptake and use of research outside academia
  - Co-design and co-produce
  - Disseminating of research-efficient communication
- Off course, we keep promotion of **basic marine science**

2. Leverage the opportunities of the UN Ocean Decade

3. Strengthen the WESTPAC Office/Decade Coordination Office

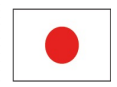




Thanks to all



PEMSEA



United Nations Educational, Scientific and Cultural Organization

From the People of Japan



United Nations Educational, Scientific and Cultural Organization

Korea Funds-in-Trust



United Nations Educational, Scientific and Cultural Organization

THAI National Commission for UNESCO



East China Normal University



USM UNIVERSITI SAINS MALAYSIA



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