



## Agenda 3.2

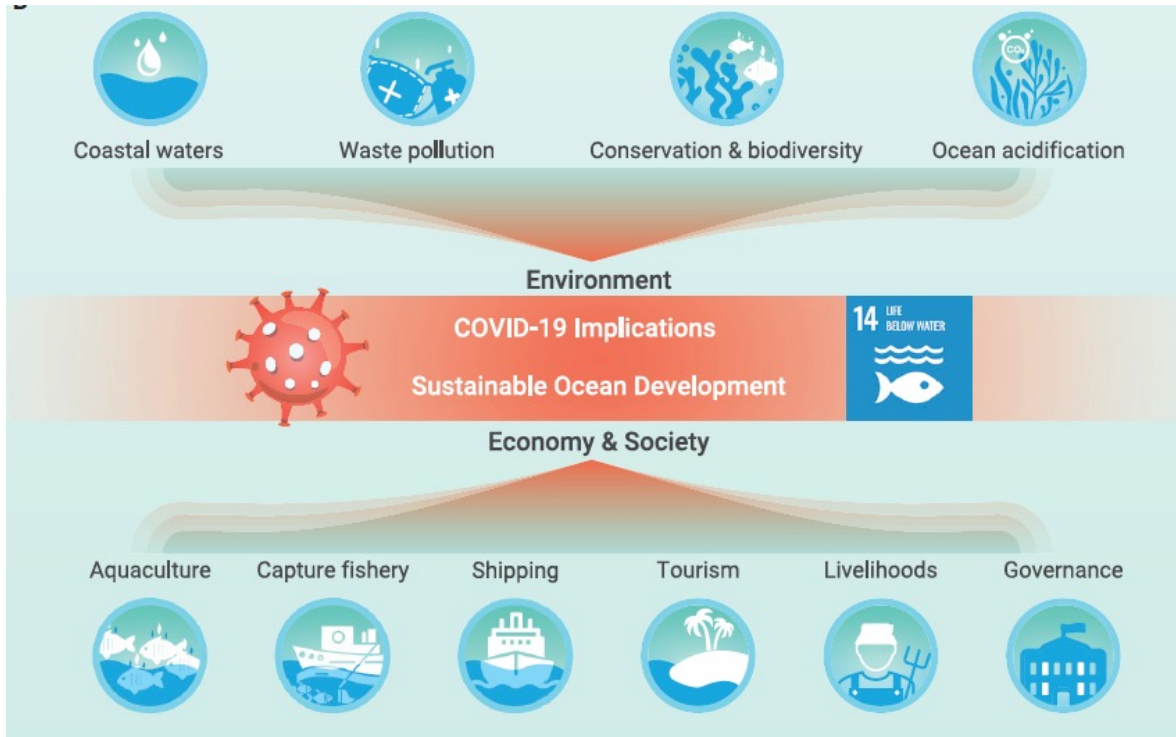
An overview of the Sub-Commission's major progresses  
since the last session (WESTPAC-XIII, 27-29 April 2021)

Wenxi Zhu, Ken Ando, Fangli Qiao, Tan Shau Hwai, Vo Si Tuan,  
Zainal Arifin, Gil Jacinto, Somkiat Khokiattiwong, Youn-Ho Lee, Weidong Yu  
Decade Coordination Office, IOC Sub-Commission for the Western Pacific



Fourteenth Intergovernmental Session of the IOC Sub-Commission for the Western Pacific  
4-7 April 2023, Jakarta, Indonesia

# Reflections on The COVID-19 impacts and sustainable ocean development



**Ocean in the UN Frameworks**

14 LIFE BELOW WATER

THE LAW OF THE SEA + BBNJ

UNEP Regional Seas

Sendai Framework for Disaster Risk Reduction 2015 - 2030

SOLAS

MARPOL CONSOLIDATED EDITION 2017

ISLAND VOICES GLOBAL CHOICES

SAMOA PATHWAY

CCRP RESPONSIBLE FEDERALS

PSMA

Convention on Biological Diversity

GPA

UNESCO World Heritage

**United Nations** Intergovernmental Conference on Marine Biodiversity of Areas Beyond National Jurisdiction



**UN Ocean Conference**  
Lisbon, Portugal



Schematic diagram credit: Jiang Q., Xu Z., and Zhang H. (2022), Global impacts of COVID-19 on sustainable ocean development. The Innovation 3(4), 100250



WESTPAC-XIV, 4-7 April 2023, Jakarta, Indonesia

# Looking back to move forward!

## Major results of the last Session (WESTPAC-XIII, 27-29 April 2021, online)



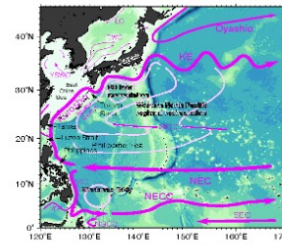
Issue based, co-designed and solution-oriented approach; responding to national and regional priorities;

Capitalizing on and strengthening existing networks and resources; and engaging more relevant stakeholders;

Integrating capacity development as an integral part of the proposed Action;

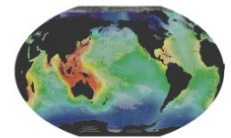
Building on a strong willingness and commitment

### Establishment of new programmes/Working Groups

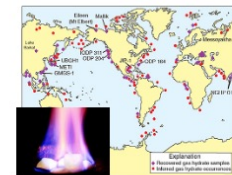


Asian Marginal Seas

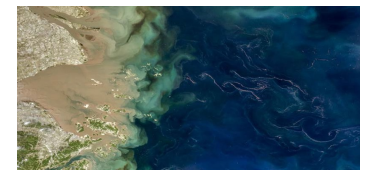
2<sup>nd</sup> Cooperative Study of Kuroshio and its adjacent regions



WG: Indo-Pacific Convergent Center - Marine Ecosystem and Biodiversity (I3PCC-MEB)



WG: Gas hydrate study



WG: Rapid detection technologies for harmful algal blooms








### Promoting, and mobilizing actions for the Ocean Decade

Welcomed the kind offer of the Government of Thailand to host: (i) a Decade Coordination Office; (ii) the Decade Regional Kickoff Conference (August 2021, online), and the first Decade Regional Conference in conjunction with the 11th WESTPAC International Marine Science Conference in 2023.

- Development of pipeline proposals for UN Decade Actions
- Adopted its Programme and Budget (May 2021-April 2023) – most of joint activities to be conducted via EXB support

# 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 and seafood safety and security**

**C: Ocean ecosystem health**

**D: Enhanced knowledge of emerging ocean science issues**

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



# WESTPAC PROGRAMMES/WORKING GROUPS

|   |   |
|---|---|
| A 1: NEAR-GOOS  |    |
| A 2: MOMSEI (SEA-GOOS)  |   |
| A 3: OFS (SEA-GOOS)   |   |
| A 4: Ocean Acidification (SEA-GOOS)                                       |    |
| A 5: Air-Sea Interactions in the Kuroshio Extension                       |   |
| A 6: Upwelling studies through data integration towards ocean science     |   |
| A 7: South China Sea Fluvial Sediment and its Environmental Changes       |   |
| A 8: Indo-Pacific Ocean Environmental Variations and Air-Sea Interactions |   |
| A 9: 2 <sup>nd</sup> Cooperative Study of Kuroshio and adjacent region    |   |
| A 10: Asian Marginal Seas   |    |
| B 11: Coral Reef Conservation, Restoration and Resilience                 |   |
| B 12: DNA taxonomy and recruitment monitoring                             |   |
| B 13: Marine toxins and seafood safety                                    |   |
| B 14: Marine endangered species   |    |
| B 15: Harmful Algal Blooms  |   |
| C 16 : Ocean remote sensing for coastal habitat mapping                   |   |
| C 17: Harmful jellyfish research and monitoring                           |   |
| C 18: Marine microplastic research and monitoring                         |   |
| C 19: Harmful algae blooms  |   |
| WG on Ocean Oxygen Network  |  |
| WG on Gas Hydrates and Methane Fluxes                                     |   |
| WG on RDT for HABs  |   |
| WG on Indo-Pacific Convergent Center                                      |   |

# Key Areas of Action-1

## Mobilize Actions for the UN Ocean Decade



### Regional Planning Workshop for the North Pacific

2019/Tokyo



Regional Consultative and Planning Workshop towards the UN Decade of Ocean Science for Sustainable Development (2021-2030)  
31 July - 2 August 2019, Tokyo, Japan

Regional Planning Workshop for the North Pacific  
on 31 July – 2 August 2019, Tokyo, Japan

### Decade regional dialogue on co-designing ocean science we need

2020/remote



Decade Regional Dialogue on co-design ocean science on 9 November 2020, Remote

2021/Xiamen, China



Special Forum on the UN Decade of Ocean Science for Sustainable Development on September at the X-MAS, on 14 January 2021, Xiamen, China

2019/Qingdao, China



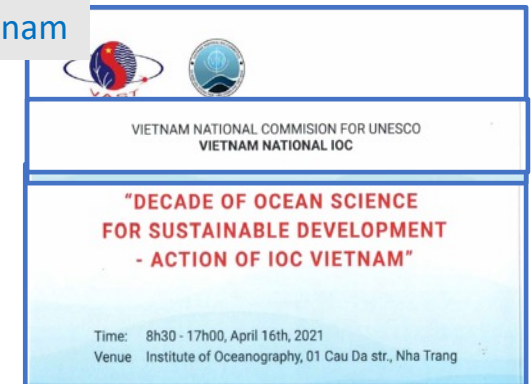
Workshop on UN Decade of Ocean Science for Sustainable Development on 5-6 September 2019, Qingdao, China

2021/Malaysia



Launch of Malaysia's Decade of Ocean Science for Sustainable Development, on March 29-31, 2021, Malaysia

2021/Vietnam



National Workshop on the UN Decade of Ocean Science for Sustainable Development, on 16 April 2021, Nha Trang, Vietnam

# Key Areas of Action-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

# Key Areas of Action-1

## Mobilize Actions for the UN Ocean Decade



### 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



**Participant logging in**

**Opening**

**Introduction to the Ocean Decade – "The Ocean Science We Need for the Ocean We Want"**

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



**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 Aisjahbana**  
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 Sasakawa Peace Foundation

**Montri Rawanchaikul**  
CEO, PTT Exploration and Production Public Company Limited

**Maeve Nightingale**  
Senior Programme Officer, IUCN

**Seung-Tae Yoon**  
Early Career Ocean Professional, Kyungpook National University, Republic of Korea



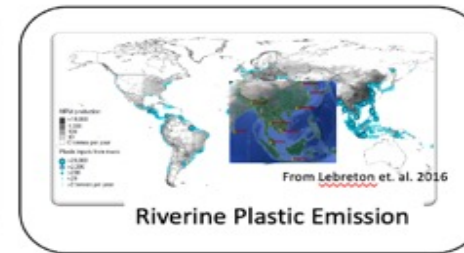
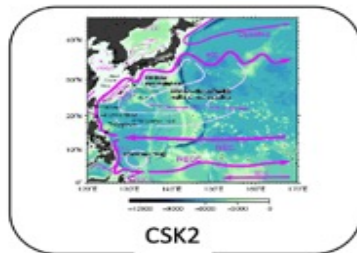
Watch the YouTube livestream video!

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

More Decade Actions details under Agenda 4.2

### 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



Decade DCO extending WESTPAC office with the support of all countries !

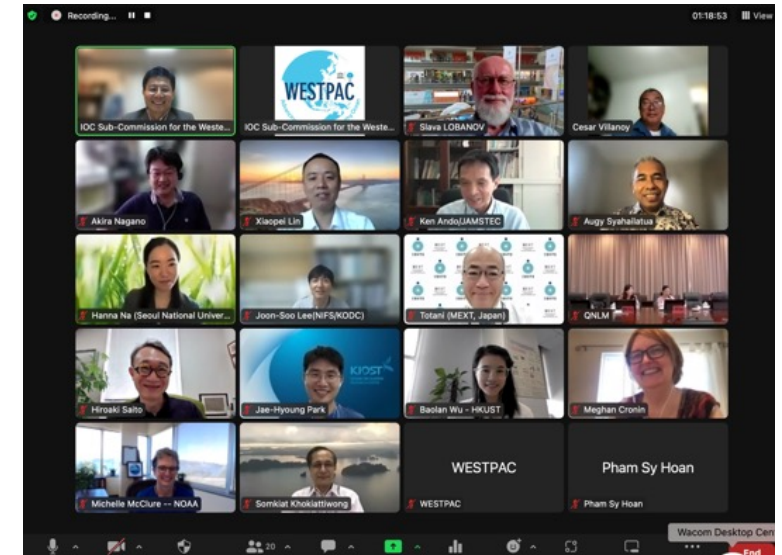


# Key Areas of Action-1

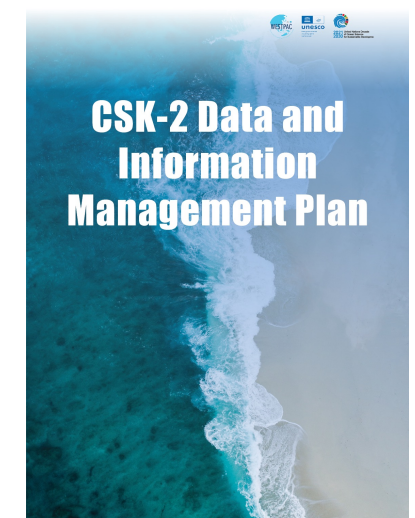
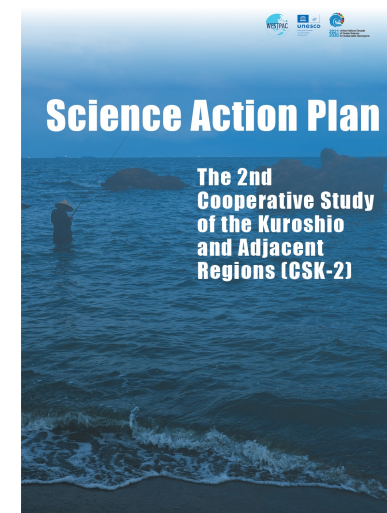
## Mobilize Actions for the UN Ocean Decade



- *UN 24: 2<sup>nd</sup> Cooperative Study of Kuroshio and Adjacent Areas (CSK-2)*
  1. The ISG for CSK-2 formed in Aug 2021, with three meetings convened in Dec 2021, June 2022, and Feb 2023
  2. CSK-2 Science Action Plan and Data & Information Management Plan developed and adopted at ISG-2;
  3. CSK-2 registered as a UN Decade Program (UN24) in April 2022;
  4. The first call for CSK-2 issued in Mid Oct 2022;
  5. Engagement efforts made at various international for a, including AOGS 2022, OSJ 2022...



More details at the Agenda item 5.2



# Key Areas of Action-2

## Delivering knowledge and services to serve member states' needs



- Minimize and address the impacts of ocean acidification, including through enhanced scientific cooperation at all levels

Development and strengthening of the regional research and monitoring network, as part of global efforts, on the ecological impacts of ocean acidification on coral reef ecosystems in the Western Pacific and its adjacent regions in support of the SDG 14.3 by Intergovernmental Oceanographic Commission of UNESCO, via its Sub-Commission for the Western Pacific (WESTPAC) (United Nations entity)

#OceanAction15274

OA monitoring pilot sites, 2015

OA monitoring sites, 2020

### 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 seawater 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 batches of Reference Materials (RM) will be shipped to participating laboratories and must be analyzed 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**

When monitoring ocean acidification, at least two of these basic parameters must be measured. From these, the remaining two—including other related carbonate parameters—can be calculated.

**Figure 1:** Average (open circles) and standard deviation (vertical line) measurement values of pH Certified Reference (TRIS) of 16 labs. The plot shows pH values clustered around 8.0.

**Figure 2:** Average (open circles) and standard deviation (vertical line) measurement values of Certified Reference Material of total alkalinity (TA) of 17 labs. The plot shows TA values clustered around 2000  $\mu\text{mol kg}^{-1}$ .

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

On going efforts since August 2021

# Key Areas of Action-2

## Delivering knowledge and services to serve member states' needs



- Minimize and address the impacts of ocean acidification, including through enhanced scientific cooperation at all levels



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



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



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



National training and stakeholder engagement workshops in Malaysia (Penang, 20-22 September 2022), Vietnam (Nha Trang, 13-15 October 2022), and Thailand (Phuket, 2-4 November 2022)

# Key Areas of Action-2

## Delivering knowledge and services to serve member states' needs



- Advance the application of remote sensing for sustainable development

**International Webinars on**  
Advancing Remote Sensing Applications for the Sustainable Development of Ocean, Marine and Coastal Resources  
Scheduled for 15 November 2022 - 17 January 2023

**CALL FOR SPEAKERS**

**Objectives**

- 1. To facilitate an exchange of latest knowledge and development practices about ocean remote sensing applications.
- 2. To develop opportunities for applying remote sensing to the conservation and sustainable use of marine and coastal resources.

**Webinar speakers are expected to:**

- 1. Showcase ongoing or planned efforts in applying ocean remote sensing for ocean and climate research, climate change mitigation and adaptation, coastal and marine management, marine biodiversity conservation and ecosystem restoration, and disaster risk reduction.
- 2. Analyze the progress achieved and explore concrete ideas/plans for future cooperation in ocean remote sensing application.

**Submission of proposals**  
**Deadline: 15 October 2022**

Please submit your abstract of less than 400 words, together with your CV to [iocwestpac@unesco.org](mailto:iocwestpac@unesco.org), with a copy to [penchanla@go.buu.ac.th](mailto:penchanla@go.buu.ac.th) and [tachanat@go.buu.ac.th](mailto:tachanat@go.buu.ac.th)

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

**Webinar Series | Week 2**  
Date: Tue 22<sup>nd</sup> November 2022  
Time: 9:30-11:00 AM (GMT+7)

**Dr. David M. Noth**  
NOAA's Coral Reef Watch, Three decades of providing decision support tools for coral reef management in a changing world

**Dr. Teruaki Kuroiwa**  
APOLAR Researcher in a Coral Reef Ecosystem by using GIS and Remote Sensing for Coral Reef Ecosystems Using Remote Sensing in the Case of Okinawa Bay

**Dr. Teruaki Kuroiwa**  
Japan's Marine Resources Conservation and Future (JMAR)

**Dr. Teruaki Kuroiwa**  
Remote Sensing of Coral Reef Ecosystems by using GIS and Remote Sensing for Coral Reef Ecosystems Using Remote Sensing in the Case of Okinawa Bay

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

**Webinar Series | Week 3**  
Date: Tue 29<sup>th</sup> November 2022  
Time: 9:30-11:00 AM (GMT+7)

**Dr. Nishant Singh**  
Remote sensing of marine seagrass beds for management and conservation

**Dr. Nishant Singh**  
University of Technology (India)

**Dr. Nishant Singh**  
Multi-scale remote sensing for coral reef ecosystem assessment: a case study of the Great Barrier Reef

**Dr. Nishant Singh**  
University of Technology (India)

**Dr. Nishant Singh**  
Remote Sensing of Marine Ecosystems by using GIS and Remote Sensing for Coral Reef Ecosystems Using Remote Sensing in the Case of Okinawa Bay

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

**Webinar Series | Week 4**  
Date: Tue 6<sup>th</sup> December 2022  
Time: 9:30-11:00 AM (GMT+7)

**Dr. Nishant Singh**  
Ocean color remote sensing and its impact on marine biodiversity: impacts on the marine ecosystem

**Dr. Nishant Singh**  
University of Technology (India)

**Dr. Nishant Singh**  
Remote Sensing of Marine Ecosystems by using GIS and Remote Sensing for Coral Reef Ecosystems Using Remote Sensing in the Case of Okinawa Bay

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

**Webinar Series | Week 5**  
Date: Tue 13<sup>th</sup> December 2022  
Time: 9:30-11:00 AM (GMT+7)

**Dr. Nishant Singh**  
Multi-scale remote sensing of marine seagrass beds for management and conservation

**Dr. Nishant Singh**  
University of Technology (India)

**Dr. Nishant Singh**  
Remote Sensing of Marine Ecosystems by using GIS and Remote Sensing for Coral Reef Ecosystems Using Remote Sensing in the Case of Okinawa Bay

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

**Webinar Series | Week 6**  
Date: Tue 20<sup>th</sup> December 2022  
Time: 9:30-11:00 AM (GMT+7)

**Dr. Nishant Singh**  
Application of satellite remote sensing for coral reef ecosystem assessment: a case study of the Great Barrier Reef

**Dr. Nishant Singh**  
University of Technology (India)

**Dr. Nishant Singh**  
Remote Sensing of Marine Ecosystems by using GIS and Remote Sensing for Coral Reef Ecosystems Using Remote Sensing in the Case of Okinawa Bay

**International Webinars on**  
Advancing Remote Sensing Applications for the Sustainable Development of Ocean, Marine and Coastal Resources  
Scheduled for 15 November 2022 - 17 January 2023

In collaboration with

**CALL FOR SPEAKERS**

**Objectives**

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Each presentation will take about 30 mins, including 5 mins for questions.

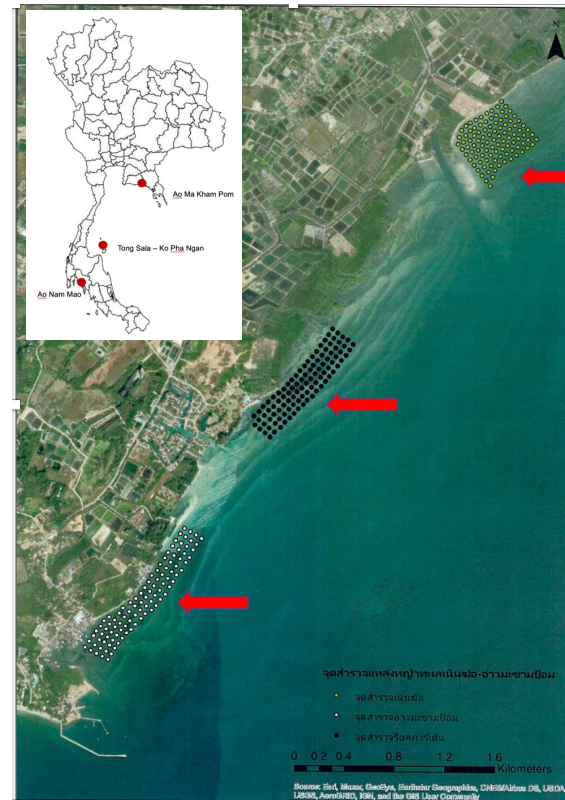
The webinar program will be available by 31 October 2022 at <https://ioc-westpac.org>

# Key Areas of Action-2

## Delivering knowledge and services to serve member states' needs



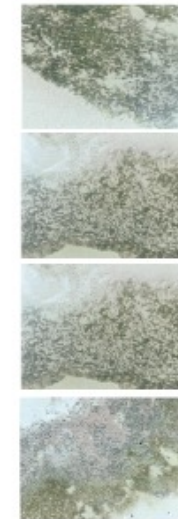
- Advance the application of remote sensing for marine habitat conservation



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>



Legend for GEE analysis results:

- Yellow: Sand
- Light Green: Low density (% of seagrass coverage is < 25)
- Dark Green: High density (% of seagrass coverages 51-75)

Ao Ma Kham Pom, Rayong Province, Thailand

# Key Areas of Action-2

## Delivering knowledge and services to serve member states' needs



- Accelerate marine spatial planning in the Western Pacific- UN 21 & MSPglobal 2.0

### MSP matters to the region

**TREND 2000-2021**  
Annual percent change

**SELECTION 2021**

- Emerging market and developing economies: 4.2
- Advanced economies: 1.6
- World: 2.8
- East Asia: 4.4
- Southeast Asia: 4.9

**Challenges to sustainability**

**the guardian**  
Vietnam investigates mass fish deaths

Source: IMF World Economic Outlook

Global trade's recovery from COVID-19 starts hits record high

The Ocean is Leading the Recovery

### MSP development status in the region

**GENERAL SCHEME OF INDOONESIAN MSP**

Development varies greatly from one to another!

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

16 December 2022, 0900-1600 (UTC+7, Bangkok Time)

Marine Spatial Planning (MSP) is a process that proposes a more integrative, multisectoral approach to managing marine spaces and resources. It can improve decision-making and provide a framework for balancing sectoral interests, to achieve the sustainable use of marine resources.

The IOC/UNESCO is working on promoting ecosystem-based management through MSP, which is also a major contribution to the UN Decade of Ocean Sciences for Sustainable Development (2021-2030).

**Objectives:** To bring together various MSP stakeholders in the region, including local/national authorities, research/academia, business/private sectors, NGOs, and foundations, to

- Share the outcomes of the 3rd International Marine Spatial Planning Conference and relevant achievements, tools, and innovation demonstration,
- Express views, and seek a better mutual understanding of marine spatial planning processes undertaken within the specific regional contexts,
- Seek new opportunities for exchange and cooperation, and explore the possibility of developing a roadmap to accelerate marine spatial planning in the region.

Organized by: WESTPAC, unesco, marine spatial planning global

Hosted by: [Logos]

With the support of: Sweden Sverige, 中国海洋发展基金会 CHINA OCEAN DEVELOPMENT FOUNDATION, FIO, PSU, PRINCE OF SULTAN, KIOST, THE UNIVERSITY OF PAPA NEW GUINEA

Register for this event  
You will receive a confirmation email.

### Regional MSPforum for Western Pacific and its Adjacent Areas – 1<sup>st</sup> edition

Event Report

When: 16 December 2022  
Where: Online

unesco Intergovernmental Oceanographic Commission

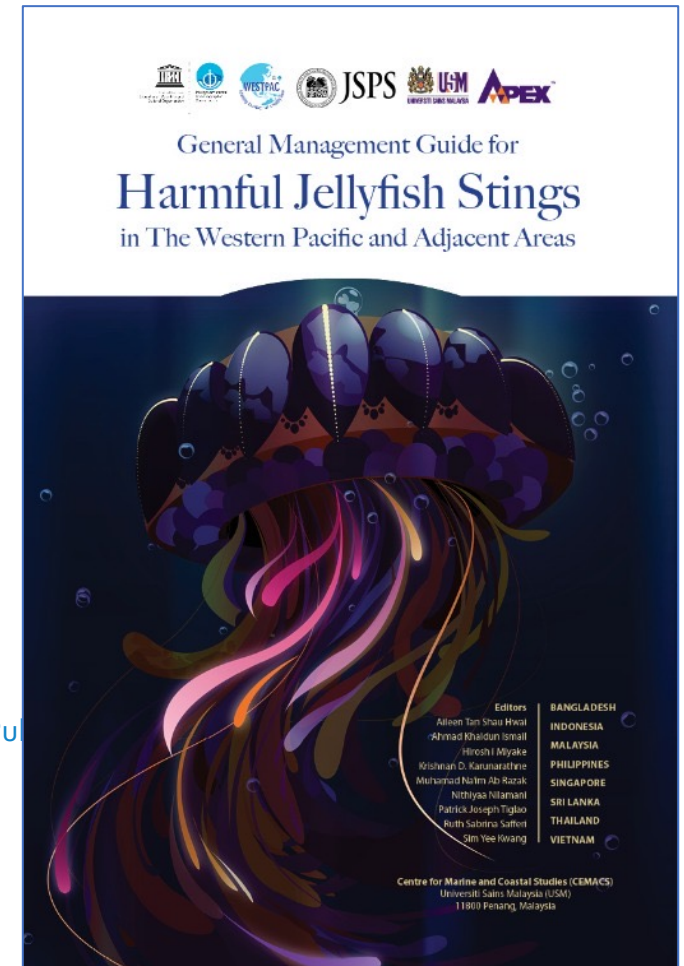
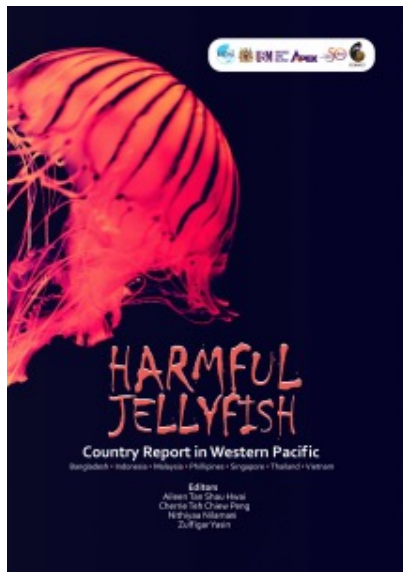
WESTPAC

# Key Areas of Action-2

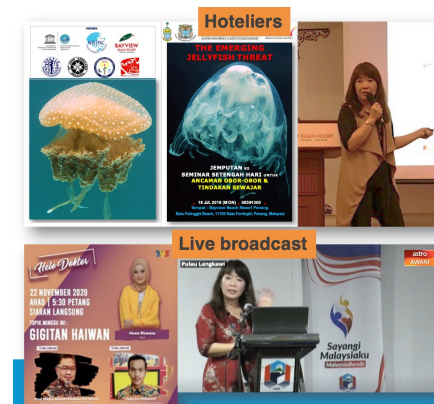
## Delivering knowledge and services to serve member states' needs



- Delivering knowledge on harmful jellyfish for public health



Science for society, Headlines, The Star, 19 July 2020



# Key Areas of Action-2

## Delivering knowledge and services to serve member states' needs



- *Development of integrated coral reef monitoring manual for MPAs in Vietnam*



Literature review to provide a template of proposed indicators and techniques



Conduct site visits and consultation to analyze the status of using coral reef resources



Contact (online) MPA authorities in Vietnam to verify and revise the indicators in the template



Conducting demonstration workshop for MPAs in Vietnam to get advice and comments on the draft of manual from potential managers and experts



Developing and publishing integrated coral reef monitoring manual on the WESTPAC website



# Key Areas of Action-2

## Delivering knowledge for emerging ocean issues

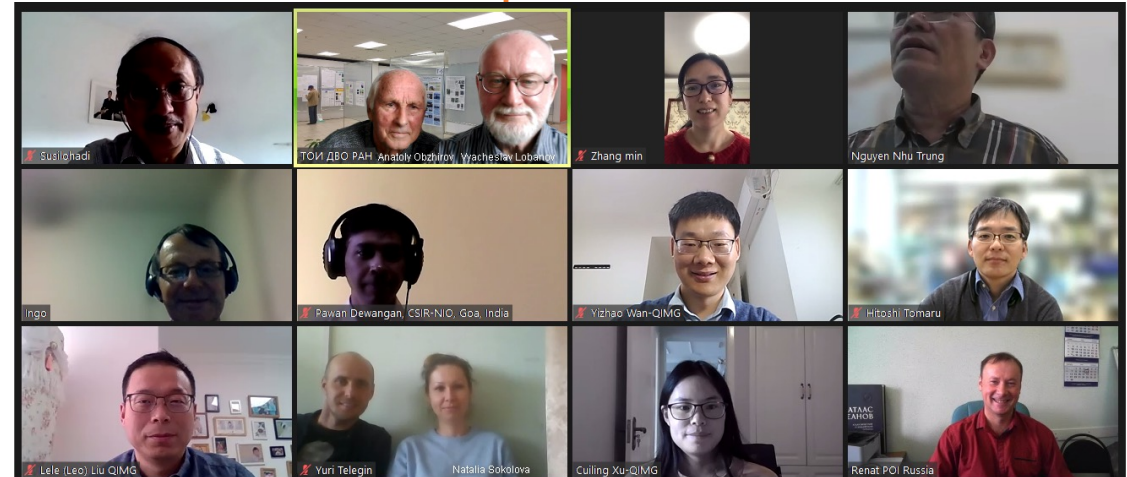


- WG on gas hydrates and methane fluxes in the Indo-Pacific region and their impact on climate, ecosystem and socio-economic development

**Objective:** to prepare a long-term international collaborative project under WESTPAC.

### Workplan for 2023-2024

- 2<sup>nd</sup> CoSGas workshop, September, 2022 – presentation of national reports on related studies
- Development of the CoSGas Report on the status of the gas hydrates studies and associated phenomena in the WESTPAC countries – draft by Feb 1, 2023
- 3<sup>rd</sup> CoSGas workshop, Mar, 2023, and 4<sup>rd</sup> CoSGas workshop, Sept 2023: Discussion on main WG results and key items of the new project on Gas-hydrates and methane studies under WESTPAC .



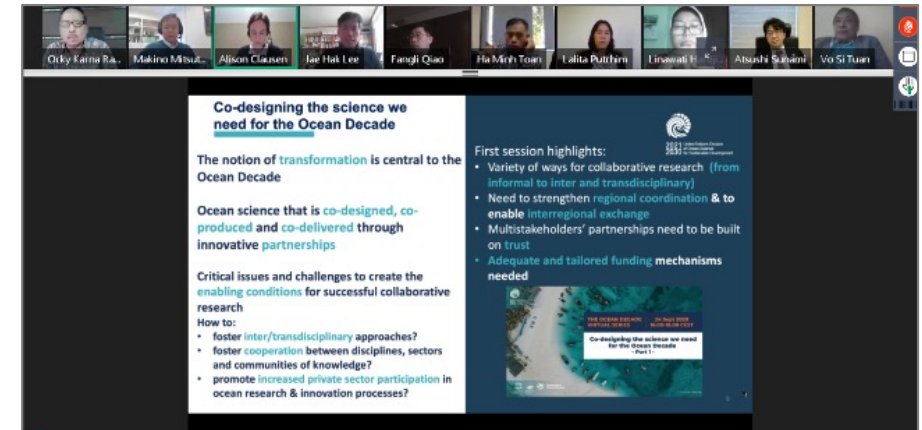
- 1<sup>st</sup> CoSGas meeting, March 18, 2022, 15 participants: China, India, Indonesia, Japan, New Zealand, Russia, Vietnam
- 1<sup>st</sup> CoSGas workshop “Recent Advances and Current Challenges of Gas Hydrates and Methane Research in the Indo-Pacific Region”, May 17, 18 and 24, 2022, 12 participants: China, India, Indonesia, Japan, Russia, Vietnam

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

**Objective:** Identify the priority issues on marine ecosystem and biodiversity research in the IPCC area from multi-circle and multi-disciplinary perspectives, which could address A Healthy and Resilient Ocean; Improve understandings on formation mechanism, current status, and trend of evolution of the biodiversity center in the IPCC and their socio-economic impacts.

#### Workplan for 2023-2024

- Organize several Co-design meetings to promote the I<sup>3</sup>PCC-MEB Programme and develop the Science Action Plan.
- Coordinate a I<sup>3</sup>PCC-MEB Side Event at the 4<sup>th</sup> Open Science Symposium on Western Pacific Ocean Circulation and Climate organized by NPOCE and engage more partners in Oct 2022.
- Organize International conference on Indonesian Throughflow (ITF) 2023 (Organizer: BRIN-RCO and IOCAS)
- Promote the communication and collaboration within the I<sup>3</sup>PCC-MEB framework



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

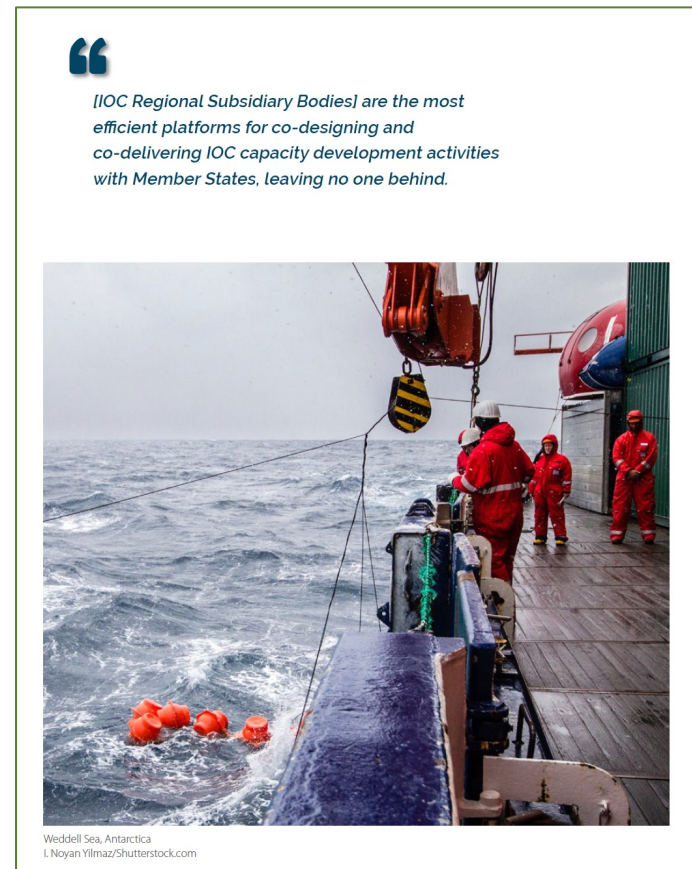
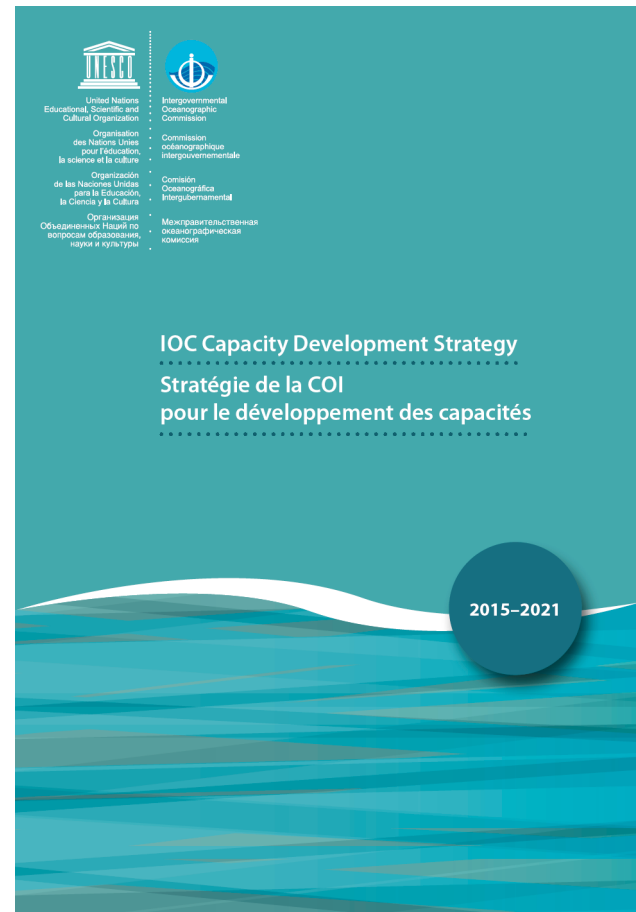
Conducted a side event – “the Decade Action Incubator 8” at the UN Ocean Decade Regional Kickoff Conference for the Western Pacific and its adjacent areas

# Key Areas of Action-3

## Capacity building for development



*'If you want to go fast, go alone;  
If you want to go far, go together!'*



# Empowering people in marine science: WESTPAC Efforts in Capacity Development



## Key Areas of Action-3

### Capacity building for development

**Guiding principles:** Adaptive, inclusive and empowerment

#### Approaches:

- Target early career ocean professionals
- Link training to the attainment of research goals by integrating CD into program development
- Co-design and co-development with Member States
- Suit national and regional needs, while closely following global emerging issues



# *Integrated capacity development tools*

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

Inclusion of capacity building into WESTPAC research programmes and conduct of a series of regional and national tailored training (or training workshop) in Member States on a rotation basis

“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” to nurture young science leaders and facilitate international exposure of young scientists

WESTPAC remains adaptive and inclusive to any capacity development tools

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

Conduct of “Bring Marine Science to School” to inspire young generations/school students on ocean and marine science



2021 United Nations Decade  
2030 of Ocean Science  
for Sustainable Development



**Somkiat Khokiattiwong**  
Programme officer for  
marine biodiversity



**Wenxi Zhu**  
Head of the Office



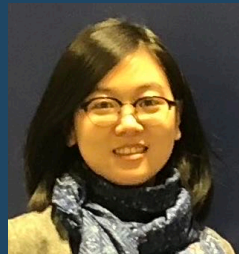
**Nachapa Saransuth**  
Senior Programme Assistant



**Angkana Rawichutiwan**  
Decade Regional Coordination Officer



**Zhiwei Zhang**  
Programme officer for  
Marine Spatial Planning



**Shengle Yin**  
Junior Professional Officer



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Ocean Science Communication



**Thirakan Saibua**  
Administrative Staff

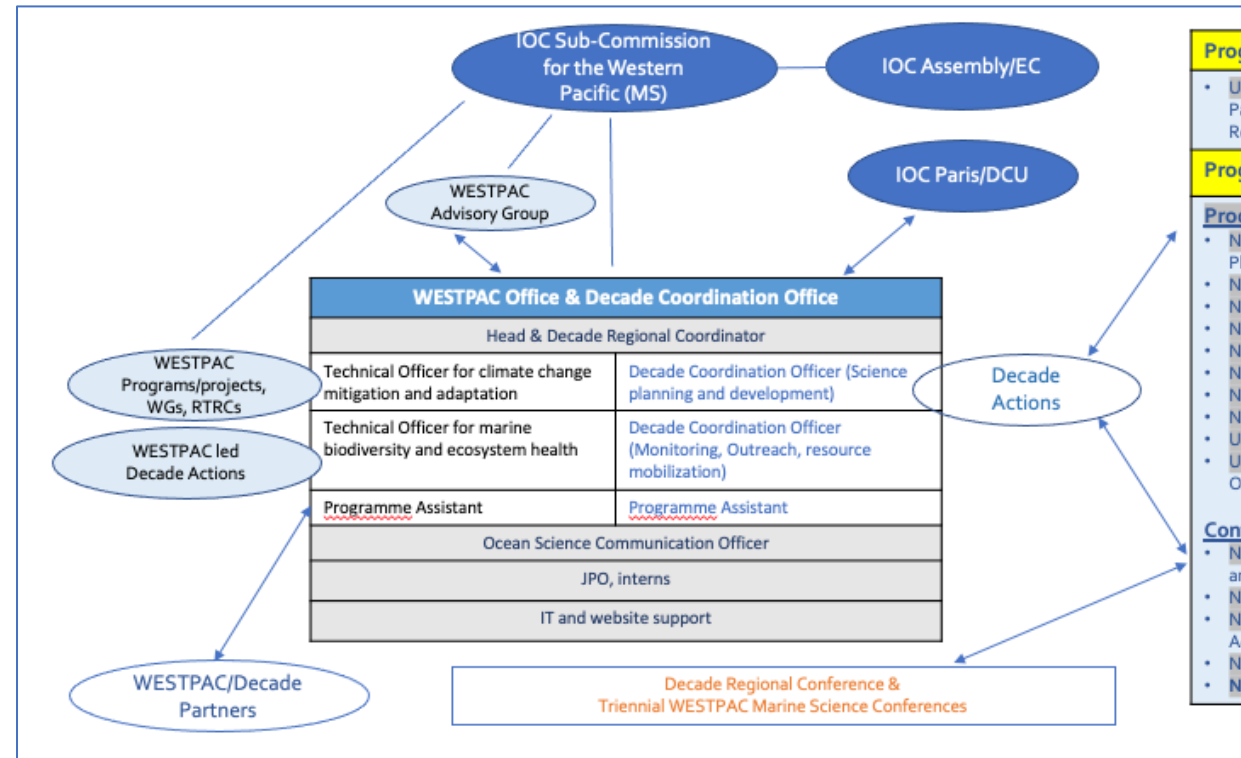


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Knowledge and Information  
Management



2021 United Nations Decade  
2030 of Ocean Science  
for Sustainable Development

# Operation WESTPAC Office/Decade Coordination Office



# Future effort

1. A huge amount of efforts in adapting to the new normal, in particular in relation to the Ocean Decade, with a lot of good practices made in delivering direct benefits to MS.
2. **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
3. Leverage the opportunities of the UN Ocean Decade
4. Strengthen the WESTPAC Office/DCO





United Nations Educational, Scientific and Cultural Organization



UNESCO-China Funds-in-trust



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  
สำนักงานเลขาธิการคณะกรรมการแห่งชาติว่าด้วยการศึกษา วิทยาศาสตร์ และวัฒนธรรม แห่งสหประชาชาติ (ยูเนสโก)



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