Building Blue Partnerships for the Future We Want

Advance research capacity and transfer marine technology for sustainable development

WESTPAC: Building Blue Partnerships

From science to innovative growth

A strategic link;

An Essential driver;

An indigenous clearing house;

A locally-rooted capacity developer
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Structure

WESTPAC International Marine Science Conference

- Ocean Observations & Services
- Marine Science & Applications
- Capacity Development
- Working Groups

WESTPAC Session

WESTPAC Office, Bangkok

WESTPAC Advisory Group

Jan 2016 – Dec 2017:
1880 participants
1 International conference
1 intergovernmental sessions
10 trainings/summer schools
33 regional science workshops

Upwelling Studies

IPOVAI

Ocean Acidification

Ocean Forecasting System

Monsoon Onset Monitoring

Safety

Harmful Algal Blooms

Ocean Remote Sensing

Marine Endangered Species

SCS Fluvial Sediments

IOC RTRC on ODC

IOC RTRC on MarBEST

Harmful Jellyfish Research

Marine Microplastic
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Areas of Action

Program Priorities

• Ocean processes and climate

• Marine biodiversity and seafood safety, security

• Ocean ecosystem health

• Enhanced ocean knowledge on emerging concerns (i.e., ocean acidification, microplastics)

• Strengthen science-policy interface for ocean governance

• Develop sustained ocean observations and services for maritime safety

• Safeguarding marine biodiversity and ecosystem health for green development

• Bolster institutional capacity for the Future We Want
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Area of Action 1: Strengthen science-policy interface for ocean governance

UN-ASEAN Plan of Action on Comprehensive Partnership (2016-2020)
Areas: Environment and climate change; cultural and education

Programme Area: Health of the coasts and ocean
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Area of Action 1: Strengthen science-policy interface for ocean governance

UN World Ocean Assessment I (2011-2015) and II (2016-2020)
"Advancing Ocean Knowledge, Fostering Sustainable Development: from the Indo-Pacific to the Globe"

17-20 April 2017, Qingdao, China

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Area of Action 2: Develop sustained observations and services for maritime safety
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Area of Action 2: Develop sustained observations and services for maritime safety

Ocean Forecasting System

Future focus.
1. Development of Higher-Resolution OFS in Sub-domains
2. Engagement of operational agencies and Capacity Building
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Area of Action 2: Develop sustained observations and services for maritime safety

Monsoon Onset Monitoring and its Social & Ecosystem Impacts (MOMSEI)

Andaman Sea Cruise

Bay of Bengal Cruise

Image: UN Poverty and Environment Initiative
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Area of Action 2: Develop sustained observations and services for maritime safety

Towards a Regional Ocean Acidification Monitoring Network
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Area of Action 2: Develop sustained observations and services for maritime safety

Marine Microplastic: Distribution, Source, Fate and Impacts

WESTPAC Microplastics Pilot Sites

Microplastics in Zooplankton (Cole et al., 2013)
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Area of Action 3: Safeguard biodiversity and ecosystem health

Marine Alien Species

Rapid Assessment Survey of Marine Alien Species

Scientific Workshops and Capacity Building
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Area of Action 3: Safeguard biodiversity and ecosystem health

Marine Toxins and Seafood Safety

Poster and brochure on common toxic puffers

Translation of the SPC/IRD Publication on Ciguatera into native languages

Regional Workshop on Toxic Marine Organisms,

Training workshop on Toxic Marine Organisms,

Training Workshop on Taxonomy and ecology of the diatom Pseudo-nitzchia,

Training workshop on Immunological method for detection of domoic acid in plankton and shellfish,
Coral Reef Restoration

Trainings and studies on the impact of sediment on coral reefs

Field study on coral reef restoration techniques
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Area of Action 3: Safeguard biodiversity and ecosystem health

Harmful Algal Blooms

Emergency response

HAB Species in the Western Pacific

Vietnam investigates mass fish deaths

Authorities are looking into whether pollution is to blame for a spate of mysterious mass fish deaths along the country’s central coast.

The Phnom Penh Post

The Guardian
Empowering people in marine science: WESTPAC Efforts in Capacity Development

Guiding principles:
Adaptive, inclusive and empowerment

Approaches:
- Target early career scientists
- Suit national and regional needs, while closely following global emerging issues;
- Link training to the attainment of research goals by integrating CD into program development;
- Co-design and co-development with Member States
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 trainings (or training workshops) in Member States, on a rotation basis

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

Establishment of “WESTPAC Best Young Scientist Award” and “WESTPAC Young Scientist Travel Grant” to nurture young science leaders and facilitate international exposure of young scientists

Meanwhile, WESTPAC has been exploring more feasible tools to develop capacity at different level, including:

Initiation of “WESTPAC Young Scientist Forum” for WESTPAC early career scientists 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

Integrated capacity development tools
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Area of Action 4: Capacity Development

Regional Training and Research Centers (RTRC)

Regional Training and Research Centre on Ocean Dynamics and Climate (RTRC-ODC)

Regional Training and Research Centre on Marine Biodiversity and Ecosystem Health (RTRC-MarBEST)

Bachok Marine Research Station, IOES, Malaysia

Phuket Marine Biological Center, Thailand

Institute of Oceanography, Vietnam
Regional Training and Research Center on Ocean Dynamics and Climate

RTRC-ODC

During 2011 to 2015, the ODC center has organized five regular training courses with total 239 trainees from 32 countries.

Proposed schedule and topics for next five years

- 2017 Development of coupled regional ocean models
- 2018 Ocean forecast system
- 2019 Climate dynamics and air-sea interaction
- 2020 Development and application of coupled regional climate models
Regional Training and Research Center on Marine Biodiversity and Ecosystem Health

RTRC-MarBEST
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Area of Action 4: Capacity Development

National/regional tailored trainings/summer schools

- Identification of HAB Species in the ASEAN Region, Singapore, 18-22 July 2016
- Hand-on exercise of the ARM processes, Phuket, Thailand, 29-31 August 2015
- Cultivation and restoration of reef organism populations, Chonburi, Thailand, 17 Sep 2016
- Box jellyfish research, Thailand, 13-17 June 2016
- Health Assessment of Marine Endangered Species, Trang, Thailand, 23-30 June 2016

10 trainings/summer schools, and 33 regional science development workshops/consultative meetings
Toxic and Anoxic Phenomena Associated with Algal Blooms in the WESTPAC region

leader of HAB science in their home country
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Area of Action 4: Capacity Development

Marine Microplastic: Distribution, Source, Fate and Impacts

WESTPAC Microplastics Pilot Sites

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Area of Action 4: Capacity Development

Marine Microplastic: Distribution, Source, Fate and Impacts

WESTPAC Microplastics Pilot Sites
Four IOC-WESTPAC Training Workshops on Research & Monitoring of the Ecological Impacts of Ocean Acidification on Coral Reef Ecosystems

Reports and Standards Operating Procedures (SOPs) at:

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Area of Action 4: Capacity Development

WESTPAC Best Young Scientist Award

10th WESTPAC International Scientific Conference
"Advancing Ocean Knowledge, Fostering Sustainable Development: From the Indo-Pacific to the Globe"
17-20 April 2017, Qingdao, China
Bringing marine science into schools!

Participation of 1200 students
Ocean is central to sustainable development

WESTPAC in Action for Sustainable Development Goals

IOC Sub-Commission for the Western Pacific (WESTPAC)
Intergovernmental Oceanographic Commission of UNESCO
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...
Develop research capacity and transfer of marine technology through the UNESCO/IOC Regional Network of Training and Research Centers (RTRCs) on Marine Science in the Western Pacific and adjacent regions in support of the SDG 14.a

by Intergovernmental Oceanographic Commission of UNESCO, via its Sub-Commission for the Western Pacific (WESTPAC) (United Nations).
WESTPAC: Challenge

- Understaffed WESTPAC Office and limited financial support from IOC;
Join the collective efforts!

http://iocwestpac.org
http://ioc.unesco.org;