Empowering Member States towards the Sustainable development of Marine and Coastal Resources

Somkiat Khokiattiwong and Wenxi Zhu
Intergovernmental Oceanographic Commission of UNESCO
IOC Within UN

- Focal point in UN for ocean observations, ocean science, ocean services and data exchange

- Competent international organization for marine science (UNCLOS)
IOC Sub-Commission for the Western Pacific
Westpac International Scientific Symposia

Westpac Intergovernmental Session

Westpac Office, Bangkok

Westpac Advisory Group

Ocean Observations & Services
- Neargoos
- Seagoos
- Odinwestpac

Marine Science & Applications
- Harmful Algae Bloom
- Toxic Marine Organism
- Ocean Remote Sensing
- Coastal and Marine Biodiversity
- Fluvial Sediment Supply to SCS
- Response of Marine Hazard to CC
- Coral Reef under Climate & Anthropogenic Perturb.
- DNA Taxonomy of Coral reef

Capacity Development
- Training & Research Centers
- Specific trainings under projects
- IOC Regional T&R Center on ODC

Air-Sea Interaction in the Kuroshio Extension and its climate impact

Working Groups
- WG001: Impact of Asian Dust on Marine Ecosystem
- WG002: Regular Process for Grame
- WG003: Mapping the Harmful Jellyfishes
- WG004: Marine Renewable Energy Technology

1403 participants,
1 international symposium,
4 joint cruises,
11 regional trainings,
27 regional workshops.
North East Asian Regional-GOOS

- **Regional Real Time Data Base (JMA)**
- **Regional Delayed Mode Data Base (JODC)**
- **National Real Time Data Base**
- **National Delayed-Mode Data Base**

**NEAR-GOOS operational regional data system**

**Map of North East Asia showing countries and flags:**

- China
- Japan
- Republic of Korea
- Russia

**Diagram showing data flow and providers:**

- **GTS**
- **Data provider**

**User interface options:**

- **Users**
JMA High resolution GPVs (temperature and current) from ocean data assimilation

Storm surge forecast by KORDI-S

http://goos.kishou.go.jp/
http://near-goos1.jodc.go.jp/
South East Asian Regional-GOOS

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

Ocean Forecasting Demonstration
MOMSEI Implementation

22 occupied out of 46 proposed Sites
(47% completion; as of January 2009)

- Surface mooring
- ADCP
- Flux Reference Site
- Deep Ocean

(Deep colors; Occupied locations)
Ocean Forecasting Demonstration

Joint Cruise for PMES, September 2011

SEAGOOS Ocean Forecasting Demonstration System Website
http://221.0.186.5/IOC-WESTPAC_OFDS
Strengthened Efforts in Capacity Building

A series of training courses/workshop conducted by respective programmes/projects

IOC Regional Network of Training & Research Centers on Marine Science

MOMSEI Summer Schools
- Qingdao, China, 2010
- Phuket, Thailand, May 2011

• Impact of Sedimentary Dynamics and Biogeochemistry on Coral Reefs, Koh Samui, Thailand, 15–18 June 2010
• Water Quality and its Impact on Coral Reefs, Sanya, China, 8–11 June 2011
• Taxonomy and Ecology of Diatom Pseudo-nitzschia, Sarawak, Malaysia, 20–23 March 2011
• Immunological method for detection of domoic acid in plankton and shellfish, Nha Trang, Vietnam, 19–22 March 2012
IOC Regional Network of Training & Research Centers on Marine Sciences

Signing on 11 May 2010

Inaugurating on 9 June 2011

http://www.fio.org.cn/english/training_center/index.htm

To be established:
Regional T&R Center on Tropical Marine Biodiversity (Indonesia);
Regional T & R Center on Climate Change and Ocean Ecosystems (Thailand);
Regional T & R Center on Ocean Remote Sensing (Korea)
leader of HAB science in their home country
Third Symposium
Bali, Indonesia, 22-26 November 1994

Fourth Symposium
Okinawa, Japan, 2-7 February 1998

Fifth Symposium
Seoul, Republic of Korea, 27-31 August 2001

Sixth Symposium
Hangzhou, China, 19-23 April 2004

Seventh Symposium
Sabah, Malaysia, 21-25 May 2008

Eighth Symposium
Busan, Republic of Korea, 28-31 March 2011
Eighth WESTPAC International Scientific Symposium, Busan 2011

- More than 500 participants
- 11 sessions and 8 workshops
- 5 prestigious marine scientists and 1 national agency awarded
- Best young scientist award 2011
Activities (1 Jul- Dec 2012)

- IOC/WESTPAC Training on Ocean Dynamics, 16-22 July 2012, Qingdao
- IOC/WESTPAC SEAGOOS Workshop on Ocean Forecasting Demonstration System, 23 July 2012, Qingdao;
- IOC/WESTPAC Workshop on the Development of RORP (Theme 1&2), 24 July 2012, Qingdao;
- IOC/WESTPAC MOMSEI Summer School; 6-10 August 2012, Qingdao;
- IOC/WESTPAC 6th MOMSEI Expert Workshop; 10-13 Sep 2012, Yangon;
- IOC/WESTPAC-UNEP/NOWPAP, COBSEA Regional Scientific and Technical Capacity Building Workshop on Integrated Marine Assessment in support of Regular Process; 17-19 Sep 2012, Bangkok;
- IOC/WESTPAC Workshop on Coral Reef Restoration Techniques; 21-23 Sep 2012, Bangkok;
- IOC/WESTPAC-ICG/PTWS Training on Tsunami models; 24-27 Sep 2012, Beijing
- IOC/WESTPAC Workshop on Harmful Algal Bloom; 29 Oct-2 Nov 2012, Changwon;
- IOC/WESTPAC Workshop on Remote Sensing for Coastal Habitat Mapping; 29 Oct- 1 Nov 2012, Kyoto;
- IOC/WESTPAC-IODE Workshop on Mapping the Capacity Building Needs for Ocean Data and Information Management towards the Sustainable Development; Dec 2012, Tianjin
Thank You for your attention