

SCOR Conference on Developing a Global Strategy  
for Capacity Building in the Ocean Sciences  
(Bremen, 16-18 August 2010)



## IMBER Capacity Building Activities

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## Outline of presentation

- IMBER research themes
- Structure of IMBER
- IMBER Capacity Building Working Group
- Regional Project Office for IMBER
- Capacity building activities 2009 - 2010
- Related activities in the Western Pacific Region
- Lesson learned from capacity building activities

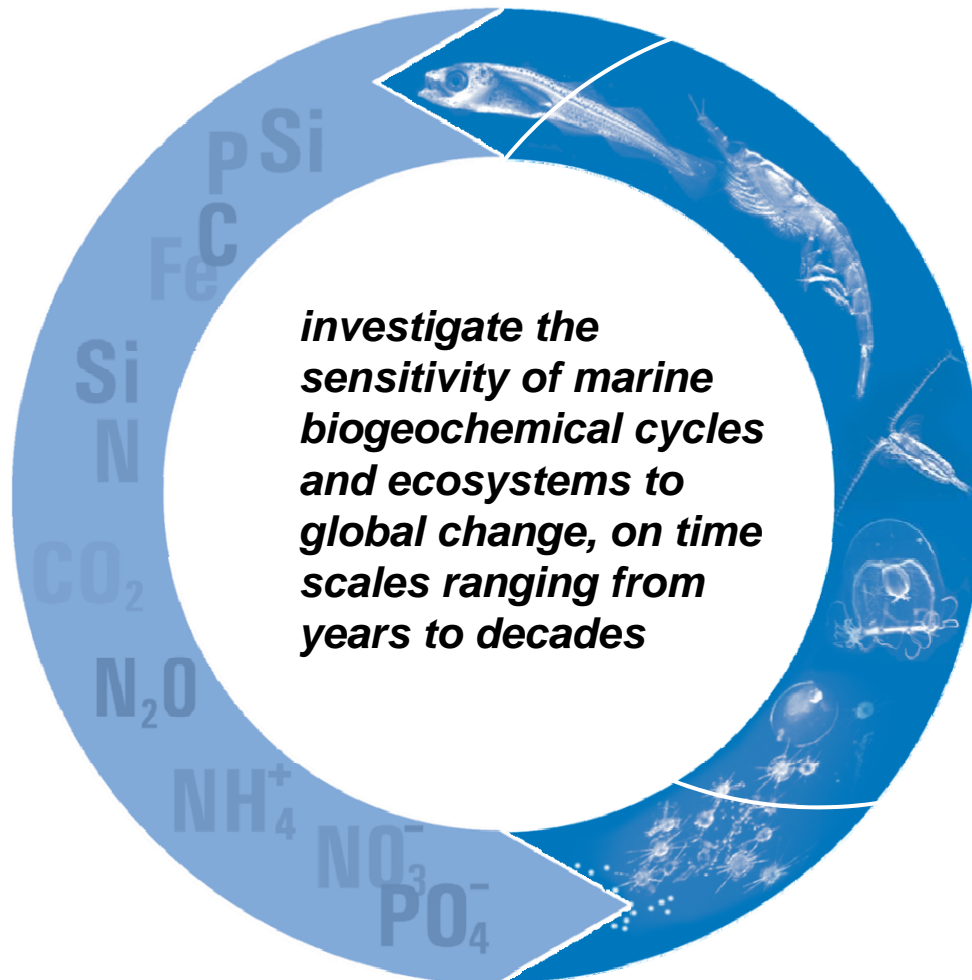


# Integrated **M**arine **B**iogeochemistry and **E**cosystem **R**esearch

“...to provide a comprehensive understanding of, and accurate predictive capacity for, **ocean responses to accelerating global change** and the **consequent effects on the Earth System and human society**”



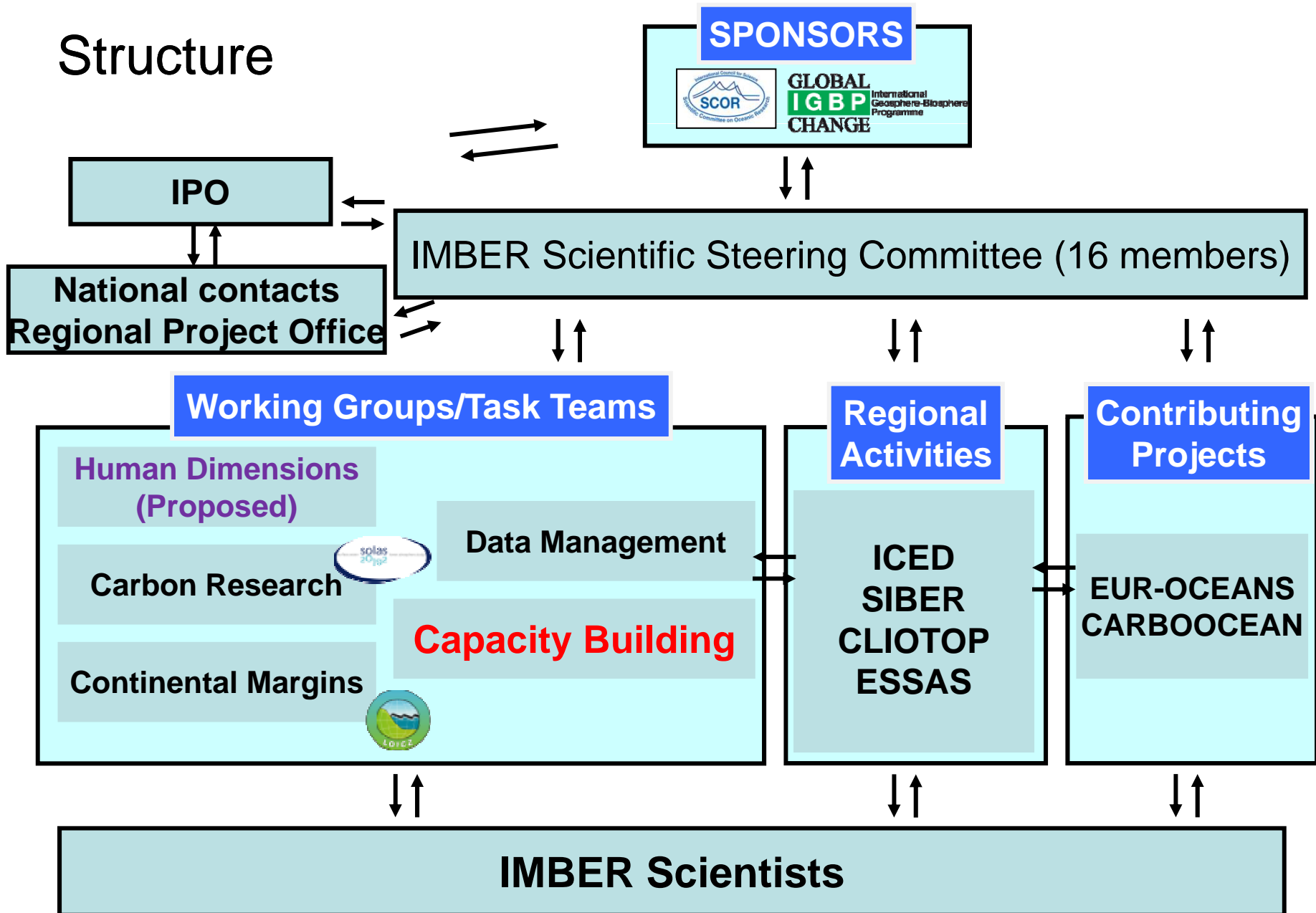
# IMBER RESEARCH FOCUS



## FOUR RESEARCH THEMES

- Interactions between biogeochemical cycles and marine food webs
- Sensitivity to global change
- Feedbacks to the Earth System
- Responses of society

# Structure



## A new Regional project Office for IMBER

Opening soon at the East China Normal University (ECNU), Shanghai, China.



- To promote IMBER in the Asia-Pacific Region.
- To support the IMBER Scientific Steering Committee in implementing the IMBER Science Plan and Implementation Strategy.
- To coordinate the Continental Margins Activities of IMBER.
- **To provide support for IMBER Capacity Building Working Group meetings and activities.**

## IMBER Capacity Building Working Group

- Laura David (The Philippines) [ldavid@upmsi.ph](mailto:ldavid@upmsi.ph)
- Juliet Hermes (South Africa) [juliet@saeon.ac.za](mailto:juliet@saeon.ac.za)
- Samina Kidwai (Pakistan) [skidwaipk@gmail.com](mailto:skidwaipk@gmail.com)
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- Wajih Naqvi (India) [naqvi@nio.org](mailto:naqvi@nio.org)
- Temel Oguz (Turkey) [oguz@ims.metu.edu.tr](mailto:oguz@ims.metu.edu.tr)
- Jing Zhang (China) [jzhang@sklec.ecnu.edu.cn](mailto:jzhang@sklec.ecnu.edu.cn)

## Objectives of the IMBER CB Working Group

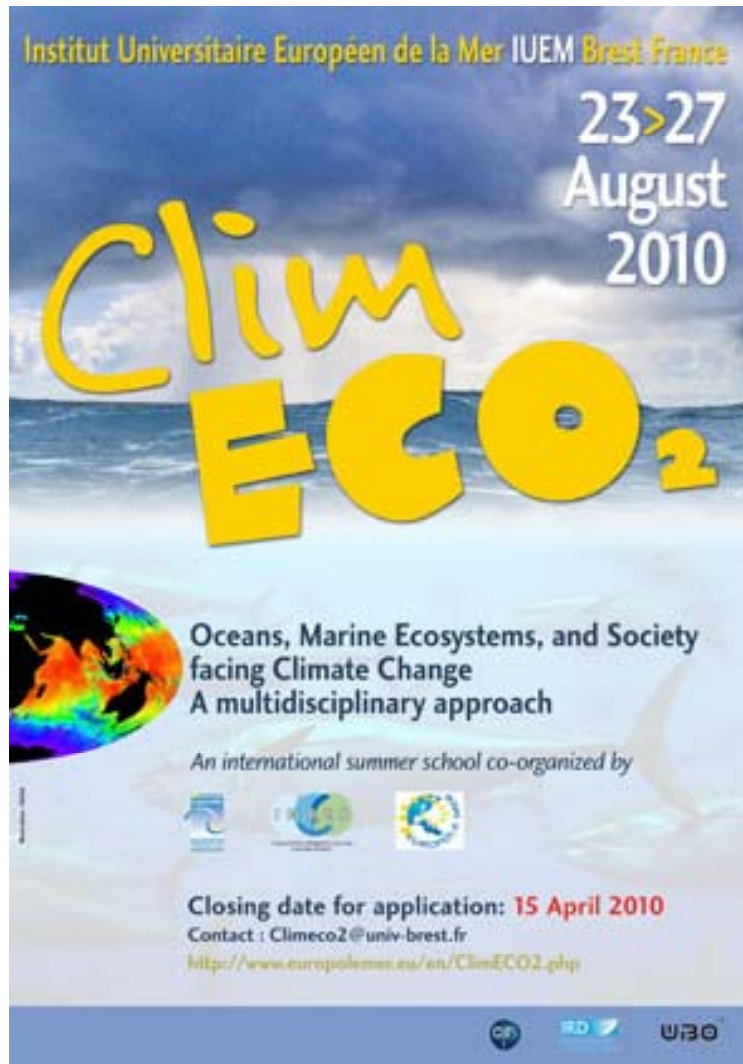


- To enhance research capabilities in less developed countries, especially those geographically close to regions of interesting biogeochemical/ecosystem provinces for optimal implementation of the IMBER science plan.
- To enhance research capabilities globally in those IMBER activities that have few practitioners but are crucial for optimal implementation of the IMBER science plan.
- To strengthen graduate education in ocean sciences.





# ClimECO<sub>2</sub> - Oceans, Marine Ecosystems, and Society facing Climate Change - A multidisciplinary approach



An international Summer School co-organized by IMBER, IUEM, and Europôle Mer. 23-27 August 2010, Brest, France

## □ Objectives

A 5-day training programme for **75** young scientists and students.

Lectures and interactive discussions.

Provide participants with an overview of knowledge, methods, models and approaches for analyzing the impact of climate change on marine ecosystems and the consequences for society.



**IMBER** **IMBIZO II**

**10-14 Oct 2010 — Crete (Greece)**

**Integrating biogeochemistry and ecosystems in a changing ocean**

**Regional comparisons**

Concurrent workshops :

- From elemental ratios to food quality
- Large-scale regional comparisons
- Food web sensitivity to enhanced stratification

Contact: [imbizo@univ-brest.fr](mailto:imbizo@univ-brest.fr) Web site: <http://www.imbizo-2010.confmanager.com>









Scientific images inside IMBIZO logo by Elena Gertch - gertch@ipcc.ch / Illustration & graphic design by Sebastian Kern - sebastian@sebastian-kern.com

## Next IMBIZO

**Workshop 1:** The effect of varying element ratios on community structure at low trophic levels and food quality at mid and high trophic levels

**Workshop 2:** Large-scale regional comparisons of marine biogeochemistry and ecosystem processes - research approaches and results

**Workshop 3:** Sensitivity of marine food webs and biogeochemical cycles to enhanced stratification

## Dry Cruise Workshop

- A one-day Dry Cruise workshop the day before the start of IMBIZO II for junior (and senior!) scientists and students.
- Good data management practices outlined in the IMBER Data Management Cookbook will be explained.
- Participants will be able to utilize and explore these techniques 'hand-on'.

# Lessons Learned from Capacity Building Activities

- **Funding sources** must be extensively explored, especially when participants from **developing countries** are involved.
- CB activities benefit when **regional experts are involved** as they can help to promote the **impacts**.
- **Themes and structure** must be well designed at beginning of CB development that **target regional problems**.
- **Lectures and practical work** should be combined and there is need to take **different educational backgrounds** into account.
- **Active communication** between lecturers and trainees, as well as among participants **is important**.

# Other related activities in the Western Pacific Region

- 4th China-Japan-Korea GLOBEC/IMBER Symposium (Jeju, 18-20 May 2010)
- Next China-Japan-Korea GLOBEC/IMBER Symposium (Shanghai, November 2011)
- **Training activities** will be part of next scientific symposium at Shanghai
- Possibility of using research ship of Hokkaido University as a platform for **capacity building**

# IOC/WESTPAC-CorReCAP Project

Jing Zhang

SKLEC/ECNU, Shanghai

IOC/WESTPAC-CorReCAP 1st Training Course

Koh Samui, Thailand, 15-18 June 2010

# IOC/WESTPAC-CorReCAP Project (Malaysia, 26-29 2008)

## Terms-of-References

- Status/conditions and critical issues of action for major coral reef ecosystems in WESTPAC
- Recommendations and cost-effective implementation related to sustainability of coral reef ecosystems
- Effective interaction/communication with other regional inter-governmental and non-governmental organizations
- **Capacity building** within WESTPAC on coral reef research and education

# IOC/WESTPAC-CorReCAP Project

## Membership

China, Indonesia, Vietnam, Thailand, Philippines, Australia, Korea, Malaysia, Russia, Germany

### **Contribution to international programs (e.g. IGBP)**

- GLOBEC: ecosystem dynamics
- IMBER: biogeochemistry and food-web
- LOICZ: coastal processes and human dimension

### **Linkage with other programs in WESTPAC, for example:**

- UNEP - South China Sea
- LMEs – Sulu Sea Conservation
- CTI



# IOCWESTPAC-CorReCAP Project

## Expected products of IOCWESTPAC-CorReCAP Project will be towards:

- Research **net-work** and coordination: collaboration within the region
- Promoting **capacity building** in WESTPAC: toward education and training of next generation and young people
- **Assessment report**: IOC Medium-Term Strategy (2008-2013)
- **Joint publication**: workshop and special issue in international media

## **IOC/WESTPAC Training Course: “Impact of Sedimentary Dynamics and Biogeochemistry on Coral Reefs”**

- Koh Samui, Thailand, 15– 18 June 2010
- Topic of Lectures:
  - Sedimentary dynamics of coral reef environment Hydrodynamics of coral reef systems
  - Marine pollution and biogeochemistry
  - Application of remote sensing and GIS in studying coral reefs
  - Biology and ecology of coral reefs
- Participants: **21 trainees from Malaysia, Indonesia, Philippines, Thailand, Vietnam, Korea, and China**



Integrated Marine Biogeochemistry and Ecosystem Research



Thank You for Your Attention!

