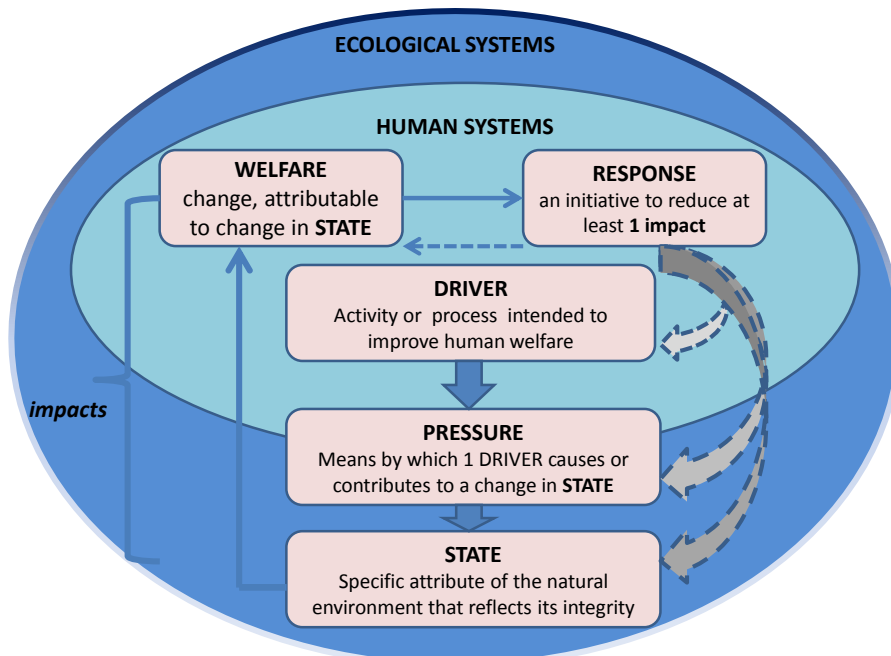
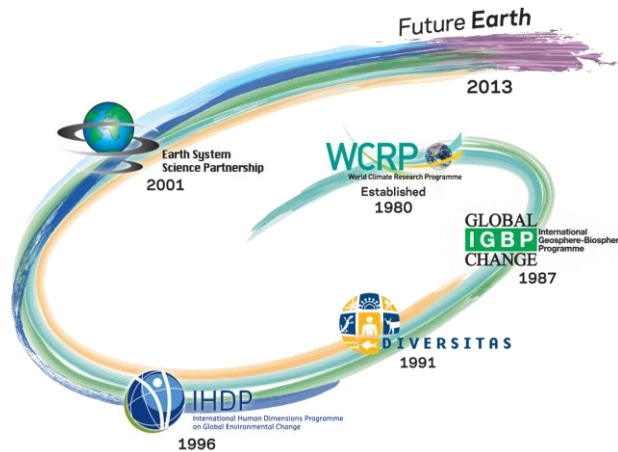


# Regional and International Marine Sustainability Programs

Annadel S. Cabanban  
Sustainability Initiative in the Marginal Seas  
of South and East Asia  
(SIMSEA)



# Future Earth



Future Earth –  
<http://www.futureearth.org>

futureearth  
research for global sustainability

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WHO WE ARE NEWS AND EVENTS SCIENCE IMPACT GET INVOLVED MULTIMEDIA

HOME

## Who we are

Future Earth is the global research platform providing the knowledge and support to accelerate our transformations to a sustainable world.

Bringing together and in partnership with existing programmes on global environmental change\*, Future Earth will be an international hub to coordinate new, interdisciplinary approaches to research on three themes: Dynamic Planet, Global Sustainable Development and Transformations towards Sustainability. It will also be a platform for

- Research Projects
- Structure and Governance
- Science Committee
- Engagement Committee
- Interim Engagement Committee

## Future Earth - themes

- A Dynamic Planet
- Global Sustainable Development
- Transformation toward Sustainability



## SIMSEA – a Future Earth program

**SIMSEA –**  
Sustainability Initiative in  
the Marginal Seas of  
South and East Asia



- **Co-design** with researchers
- **Co-implement** – SIMSEA Alliances
- **Co-manage:** stakeholders, partners

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# SIMSEA

- Regional Program, International Council for Science, Regional Office for Asia and the Pacific (ICSU ROAP)
- Memorandum of Understanding between ICSU ROAP host, Malaysia Academy of Sciences and the University of the Philippines (UP), 2014
- Based on The Marine Science Institute, UP
- <http://www.simseaasiapacific.org>



## The marginal seas of South and East Asia

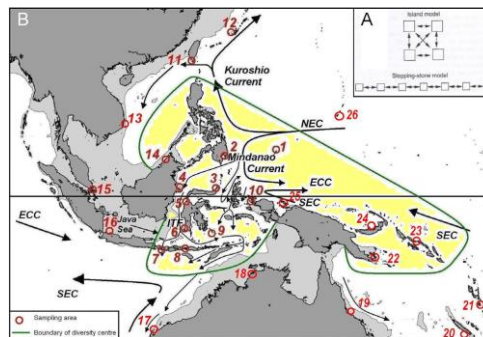


### East Asia:

- East Sea
- South China Sea and Gulf of Thailand
- West Philippine Sea
- Philippine Sea
- Sulu-Sulawesi Seas
- Indonesian Sea
- Arafura-Timor Sea

### South Asia:

- Andaman Sea
- Bay of Bengal



From Hoekema, B. proposal to SCOR, showing marginal seas, major currents, recommended sites for sampling for connectivity studies (yellow-shaded area is potential boundary of coral triangle (based on solitary corals)

## SIMSEA Research Scoping – 2015 to 2020



Question 3 only: What topics from the list (63 topics) in Rudd, 2014 should be the focus of SIMSEA ?

## RESULTS OF ON-LINE SURVEY

## Top-ranked priorities for research

- Sea-level rise and vulnerable coasts – 55.56
- Ocean productivity – 44.44
- Coastal hazard management – 44.44
- Ocean acidification – 38.89
- Biodiversity contribution to ecosystem function – 38.89
- Monitoring cumulative effects – 38.89
- Adaptive capacity of marine life – 33.33 %
- Contaminants – 33.33
- Science communication – 33.33



## SIMSEA On-line survey – 10<sup>th</sup> ranked research topics

- 10<sup>th</sup> position
- Global biodiversity and ecological function
- Cumulative stressors
- Coastal adaptation to sea-level rise
- **Local ecological knowledge**
- Seafood supply chains
- Integrated upland-coastal management (ICZM)
- Energy development



# Methodology

- Regional Workshop – November 2014
  - Session 1: ranking of research topics, by discipline (physical, ecological, socio-economic)
  - Session 2: linking research topics among disciplines
  - Session 3: formulating multi-disciplinary questions



XXXX

**MULTI-DISCIPLINARY QUESTIONS –  
ALIGNED TO FUTURE EARTH THEMES**





## 1 - A DYNAMIC PLANET

### SPATIAL AND TEMPORAL SCALES

What are the **appropriate spatial and temporal scales** in assessing **ecosystems services** in relation to biodiversity and food security?





# TIPPING POINTS

What are the **tipping points** and the **resilience of the marginal seas and its populations** in relation to global change?



## 2 - GLOBAL SUSTAINABLE DEVELOPMENT



# ECONOMIC GROWTH STRATEGIES

What are the **consequences of different economic growth strategies** for social and economic indicators and for the environment?



19

## Global sustainable development

How to define **ocean health and its indicators** from the stakeholders' point of view?



20

# Global sustainable development

How to build an **ecologically coherent network of locally-managed marine areas** including MPAs?



21



**TRANSFORMATION TOWARD  
SUSTAINABILITY**



## ROLE IN GREATER OCEAN VIEW

- on Ocean View

How do stakeholders (e.g., from government to local communities; different nationalities) understand their **role in the greater ocean view**?



23

## Building capabilities

- on Ocean View

What **role can SIMSEA play to build capabilities of local communities and convince decision makers to work towards sustainability**?

What is the **role of SIMSEA in communicating this large ocean/ borderless view**?



24

## Alternative models for action

How can an appreciation of diverse visions of sustainability at the regional, national and local level translate into the identification of plausible **alternative models (scenarios) for action?**



**cooperation and/ or conflict arising from mutually valued resources)**

How do the marginal seas unite and divide communities in the region ?



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## Building SIMSEA Alliances

- collaboration in socio-ecological ecosystems
- **SIMSEA Philippines** –  
Prof. Emeritus Rhodora V. Azanza
- SIMSEA Malaysia – Sabah node –  
Prof. Fadzilah Majid Cooke
- SIMSEA in the region – Indonesia, Japan,  
Malaysia, Philippines, and others



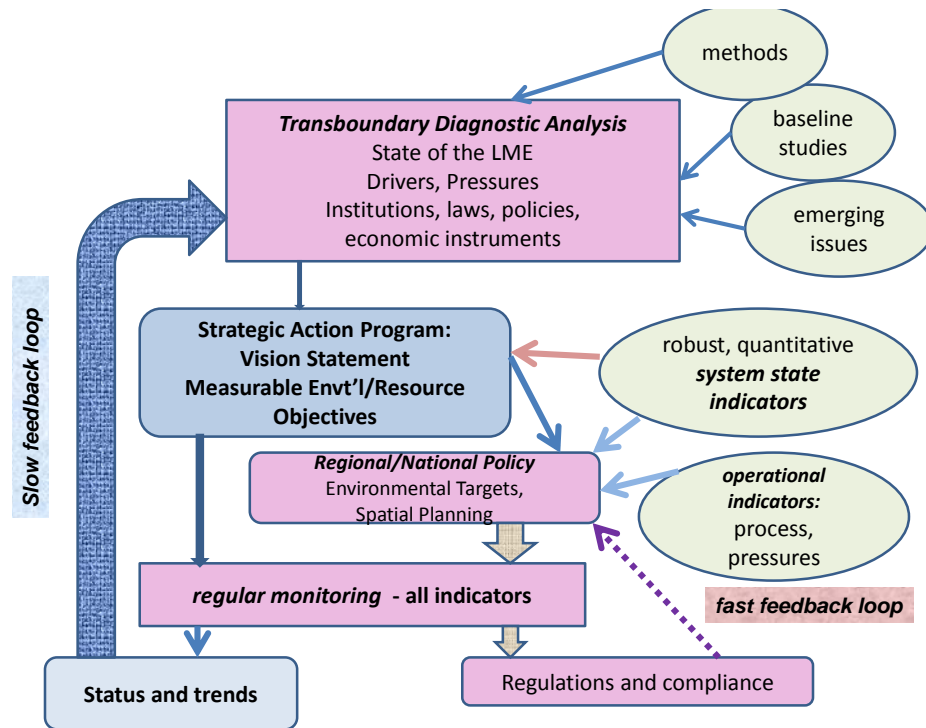
## Collaborative partnership

- Marine Science Institute, University of the Philippines
- Institute of Environmental Management and Science
- PAGASA, DOST
- NAMRIA
- JAMSTEC, Japan



**GLOBAL ENVIRONMENT FACILITY –  
INTERNATIONAL WATERS FOCAL AREA**





Thank you for your attention  
and reaction



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