UNESCO IOC/WESTPAC AND GOA-ON Science Workshop 2016
GOA-ON sites
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Development of a Long-term Monitoring Program on the Impacts of Ocean Acidification on Coral Reefs in the Western Pacific and its Adjacent region

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1st and 2nd workshops
On-going efforts on ocean acidification in the region

- Multi sensor data loggers are deployed
- Natural underwater hydrothermal vents are studied
On-going efforts on ocean acidification in the region

Effects of ocean acidification on marine organisms have been conducted.
Third GOA-ON Workshop
Breakout Questions

Regions
- Africa & Middle East
- Latin America
- Europe
- North America
- Arctic & NW Pacific
- Indo Pacific
- South Pacific
Indo Pacific Region

- Australia
- Bangladesh
- India
- Japan
- Malaysia
- Philippines
- Thailand
- USA
1. Many Challenges in the marine environment beyond OA with limited existing observations – key industries are fisheries, aquaculture, tourism, cultural

2. Need to get key national leaders with an initial stock-take of the existing effort

3. Limited GOA-ON effort in the region

4. Need for capacity building (knowledge and gear)

5. Identified 3 regional areas – Corals, Open Ocean and Upwelling (low oxygen zones)

The upwelling –OMZ may provide a similar case study as the Western USA oyster issue
IOC-WESTPAC Program

- OA monitoring program
- 21 pilot sites
- Standard Operating Procedure
Regional Implementation: Societal/political questions in the Indo-Pacific region

- Emergence time series data
- How long do we have to keep studying these questions?
- Are we trying to stop the lowering of pH or do we want to return it to normal pH?
- Other issues are more important
Regional Implementation: Regional hubs organization and connectivity

Regional hub organizations:
• Coral reefs (WESTPAC have 21 sites)
• Pelagic
• Hypoxia

Additional programmes:
• IOC-WESTPAC OA programme
• Coral Triangle Initiative (CTI)
• Relate to UN-SDG goals
Regional Implementation: Available infrastructure

• Long time series of data
• National programs
• Fisheries agencies - SEAFDEC, Marine Parks
• Funding agencies – i.e. JICA, Nippon Foundation etc
Regional Implementation: Critical OA observing needs

- Regional climate model
- Gap analysis
- Capacity building
Other breakout questions

Biological requirements for biological monitoring to serve GOA-ON goals

- What biological variables are the highest priority for the specific environment represented by your group? What are missing?

- What are the physical / chemical measurement needs (refer to GOA-ON Goal 1, Level 1) for biological response assessment in the specific environment represented by your group? Are any missing?
Capacity building needs: Regional GOA-ON capacity building needs in the next 2-3 years

- What are your region’s needs for data synthesis products (e.g., OA information products for decision makers, etc.) in both global and regional settings?
- What are your region’s needs for data management? Where are your data stored now?
- What are your region’s needs for training workshops and for developing communities of practice? What resources are available to organize these?
- What are your region’s needs for the development and/or support of your regional network?