



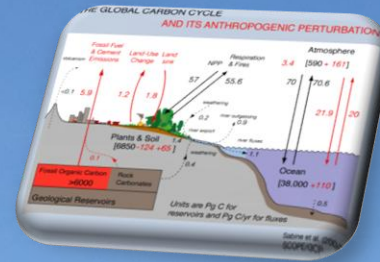
By.
Andreas A.C & Tonny Wagey
GLOC-2 at Montego Bay, 2-5 Oct 2013

NATIONAL **BLUE CARBON** POLICY DEVELOPMENT - INDONESIA

Blue Carbon Center

Research Center for Coastal and Marine Resources
Agency for Research and Development of Marine and Fisheries
Ministry of Marine Affairs and Fisheries

email : [bluecarbon.indonesia \(at\) kkp.go.id](mailto:bluecarbon.indonesia@kkp.go.id) or [andreas \(at\) kcp.go.id](mailto:andreas@kcp.go.id)



Outline Presentation

1. Introduction

2. Blue Carbon : The Gaps

3. Goals

4. Communication & Outreach Strategies

5. A Way Forward

6. Conclusions

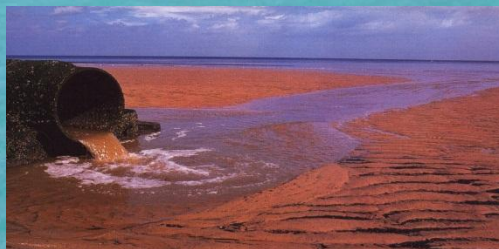
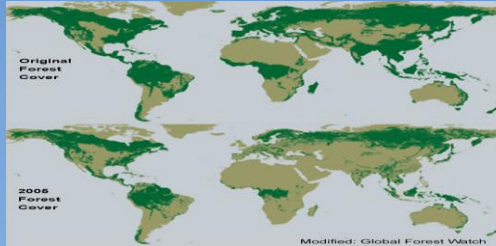
1. Introduction

The Colors of CARBON

BLACK/BROWN CARBON
(Atmosfer)

GREEN CARBON
(Forest)

BLUE CARBON
(Coastal-Marine)



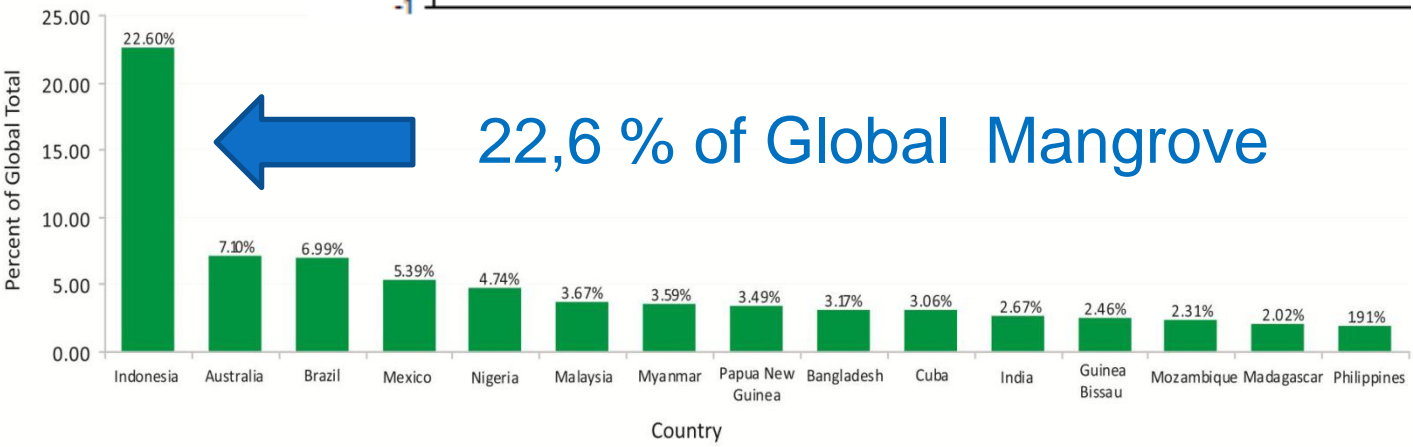
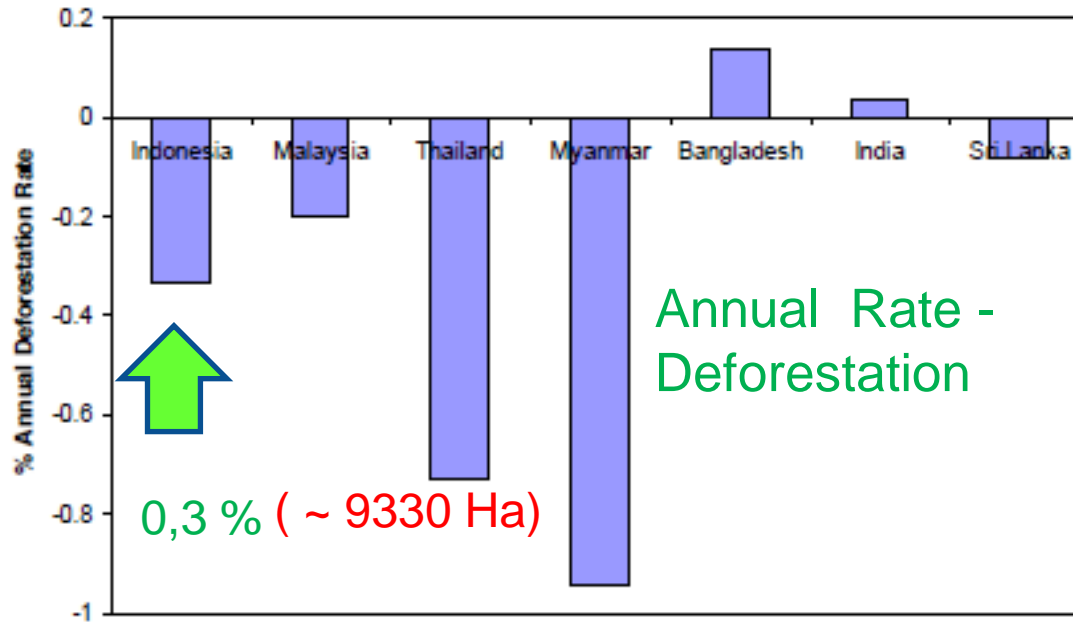
BLUE CARBON: Definition

Biological carbon captured by coastal-marine living organisms through photosynthetic process (ex. *Mangroves, Seagrass, Seaweed and Chlorophyll*)



Mangrove Distribution in Indonesia

Total Area: 3.11 million Ha (The largest on Earth)
(Giri *et al*, 2011)

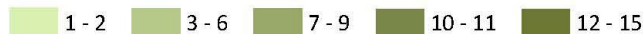


Seagrass Species Richness in the Coral Triangle

Total Seagrass Area in Indonesia: 300.000 Km² (The largest on Earth)



Seagrass Species Richness



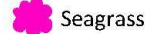
DATA SOURCES:

EEZ boundaries: Flanders Marine Institute (VLIZ).

Distribution of Seagrass (points and polygons):

Global distribution of seagrasses (V2.0, 2005) prepared by UNEP World Conservation Monitoring Centre (UNEP-WCMC) in collaboration with Dr. Frederick T. Short. Download from UNEP-WCMC's Ocean Data Viewer (points) <http://data.unep-wcmc.org/datasets/9> and (polygons) <http://data.unep-wcmc.org/datasets/10>.

Seagrass species Richness: Global seagrass diversity (V 1.0, 2003) prepared by UNEP World Conservation Monitoring Centre (UNEP-WCMC) in collaboration with Dr. Frederick T. Short. Download from UNEP-WCMC's Ocean Data Viewer <http://data.unep-wcmc.org/datasets/11>.



Coral Triangle scientific boundary (Veron *et al.* 2009)

Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security (CTI-CFF) implementation area

Dashed line represents disputed EEZ boundary

NOTE:

1. Singapore and Brunei are not members of the CTI-CFF;
2. This boundary is based on the Exclusive Economic Zones (EEZ) of the CTI countries. EEZ internal boundaries are not shown;
3. Disputed boundaries exist in this geography;
4. Boundaries are only for illustration and are not legally binding.

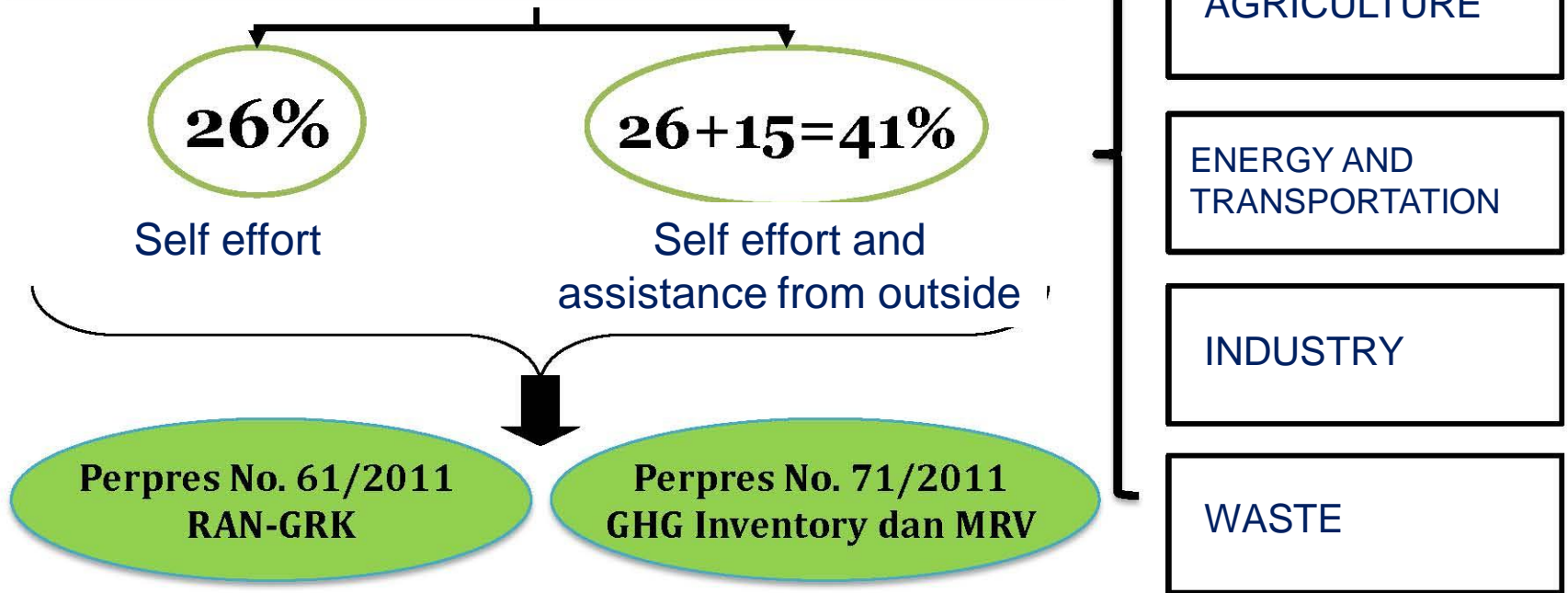




KEMENTERIAN PPN/
BAPPENAS

NATIONAL ACTION PLAN – GREEN HOUSE GASES

President Commitment made at the G20 Meeting (Pittsburgh) and COP15 (Copenhagen) on Indonesia GHG Emission in 2020



BLUE CARBON

**Coastal &
Marine**

2. BLUE CARBON : THE GAPS

Why the critical role of coastal and marine ecosystems are overlooked in global climate change discussions ?

The Reasons :

1. Lack of scientific basis due to complexity of coastal-marine ecosystems.
2. Status of the ecosystems as common property resources
3. Limited national-international attentions and available funding.



UNEP AWARD to President Rep. Indonesia

Ocean & Marine Conservation and Management



United Nations Environment Programme

UNEP Award for Leadership in Promoting
Ocean & Marine Conservation and Management
Awarded to

His Excellency Susilo Bambang Yudhoyono
President of the Republic of Indonesia

Bali - February 24, 2010

- In February 2010, *Dr. Fadel Muhammad* (Minister of Marine Affairs and Fisheries and *Mr. Achim Steiner* (UNEP Executive Director) launched the global scientific assessment on [Blue Carbon](#) during the UNEP Governing Council / Global Ministerial Environment Forum in Bali



KARBON BIRU

PERAN EKOSISTEM LAUT YANG SEHAT DALAM MENGIKAT KARBON



3. GOALS

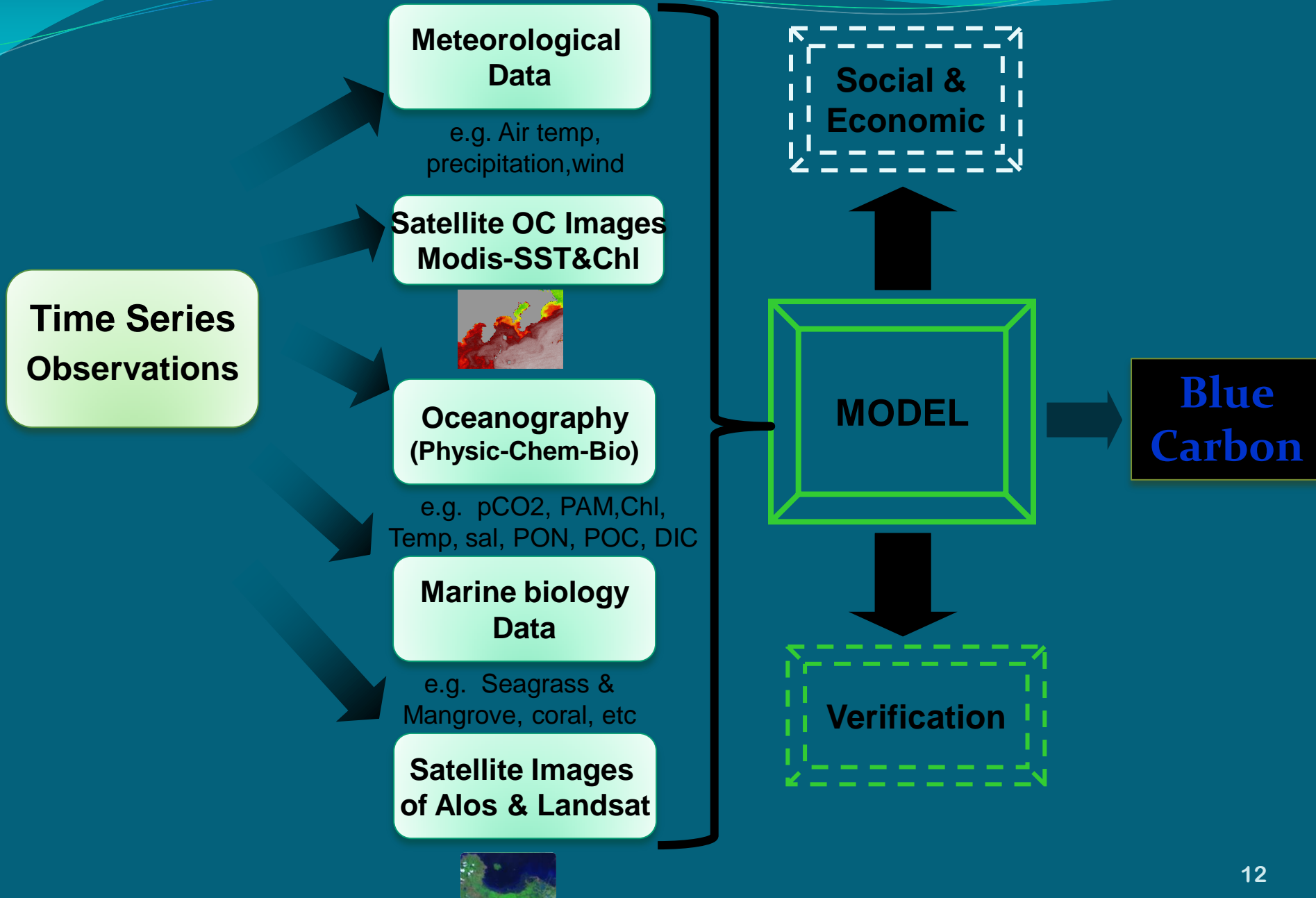
Coastal-Marine "Blue Carbon" in Indonesian Waters



Scientific Findings

Coastal-Marine *Blue Carbon* Policy

➤ Flow Chart Metodology of Integrated Blue Carbon Study



3. Scientific Observations (2010~) – The Sites

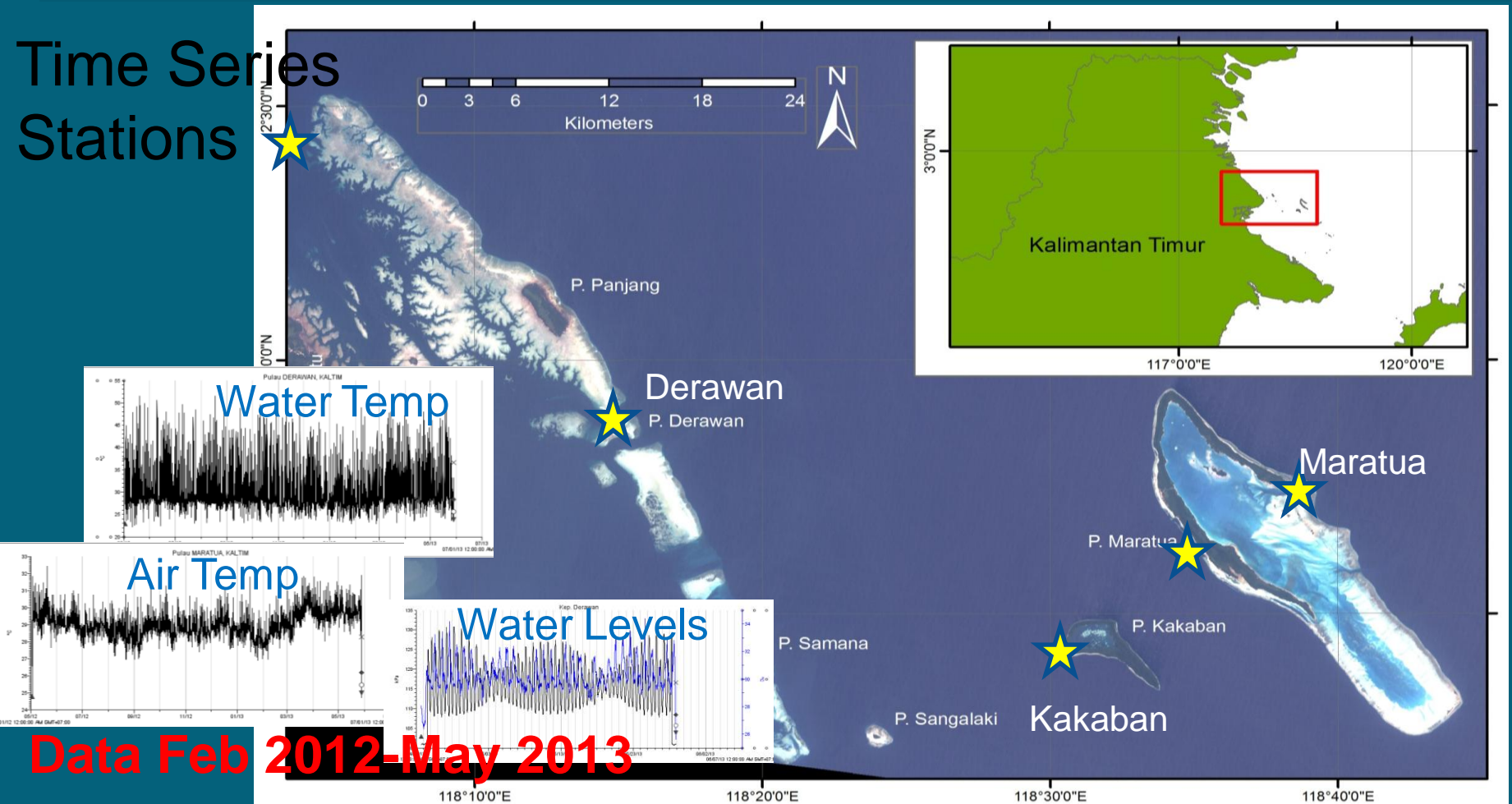
* Funded by Agency of R&D for Marine and Fisheries Indonesia



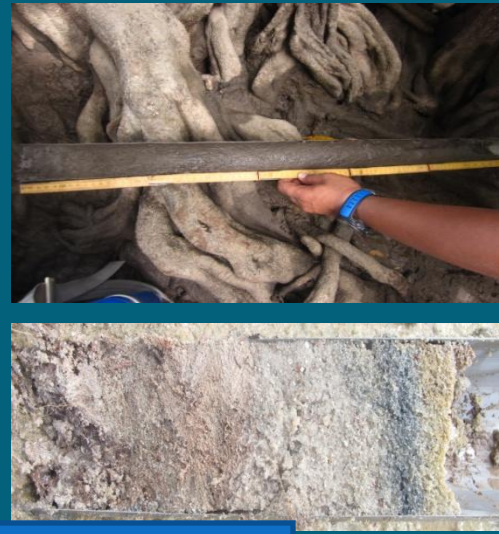
Demo Site for Blue Carbon in Derawan Islands

1. Establishing 4 permanent stations for time series measurement (meterological and oceanographical data). Collecting the data every 15 minutes.

Time Series
Stations



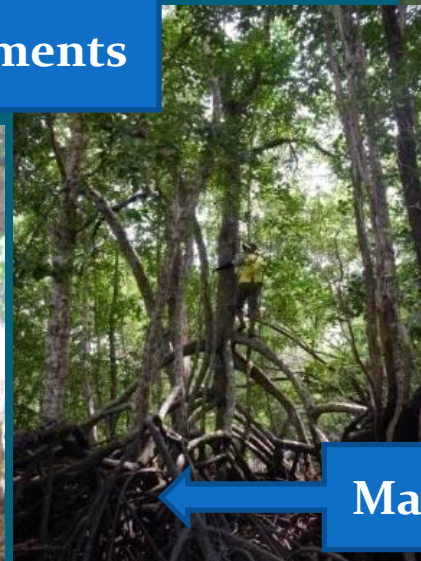
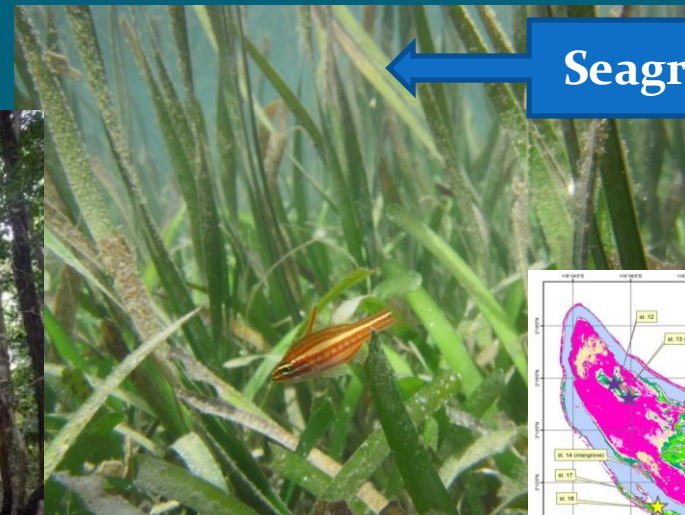
2. Coastal's Team : Collecting physical-Chem-Bio data of coastal ecosystem (e.g. Seagrass, mangrove and sediment) for understanding the ecosystem dynamics and estimating Blue Carbon Stock



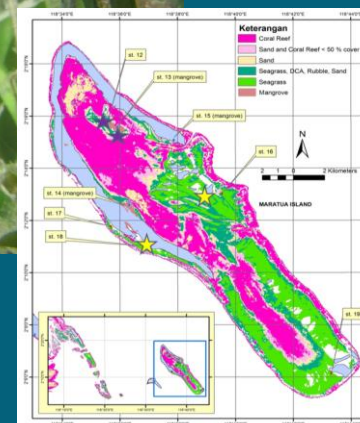
Sediments



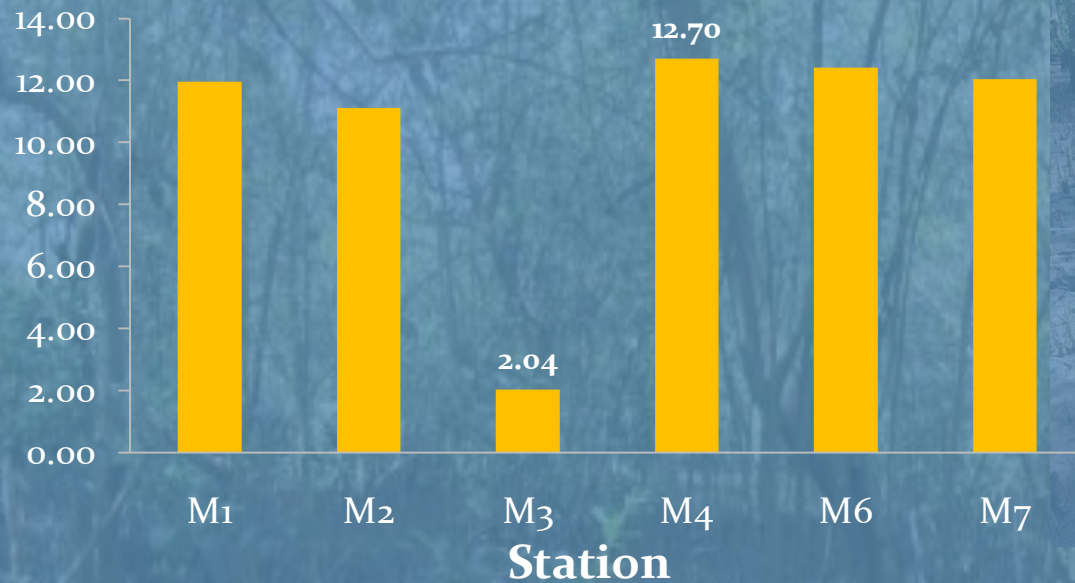
Seagrass



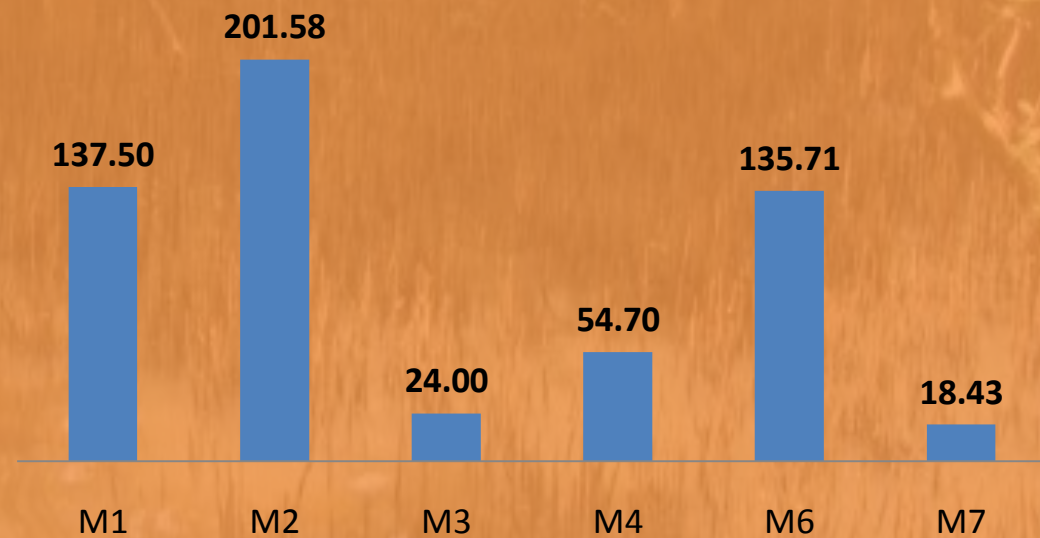
Mangroves



Total Carbon of Mangrove Sediment (%)

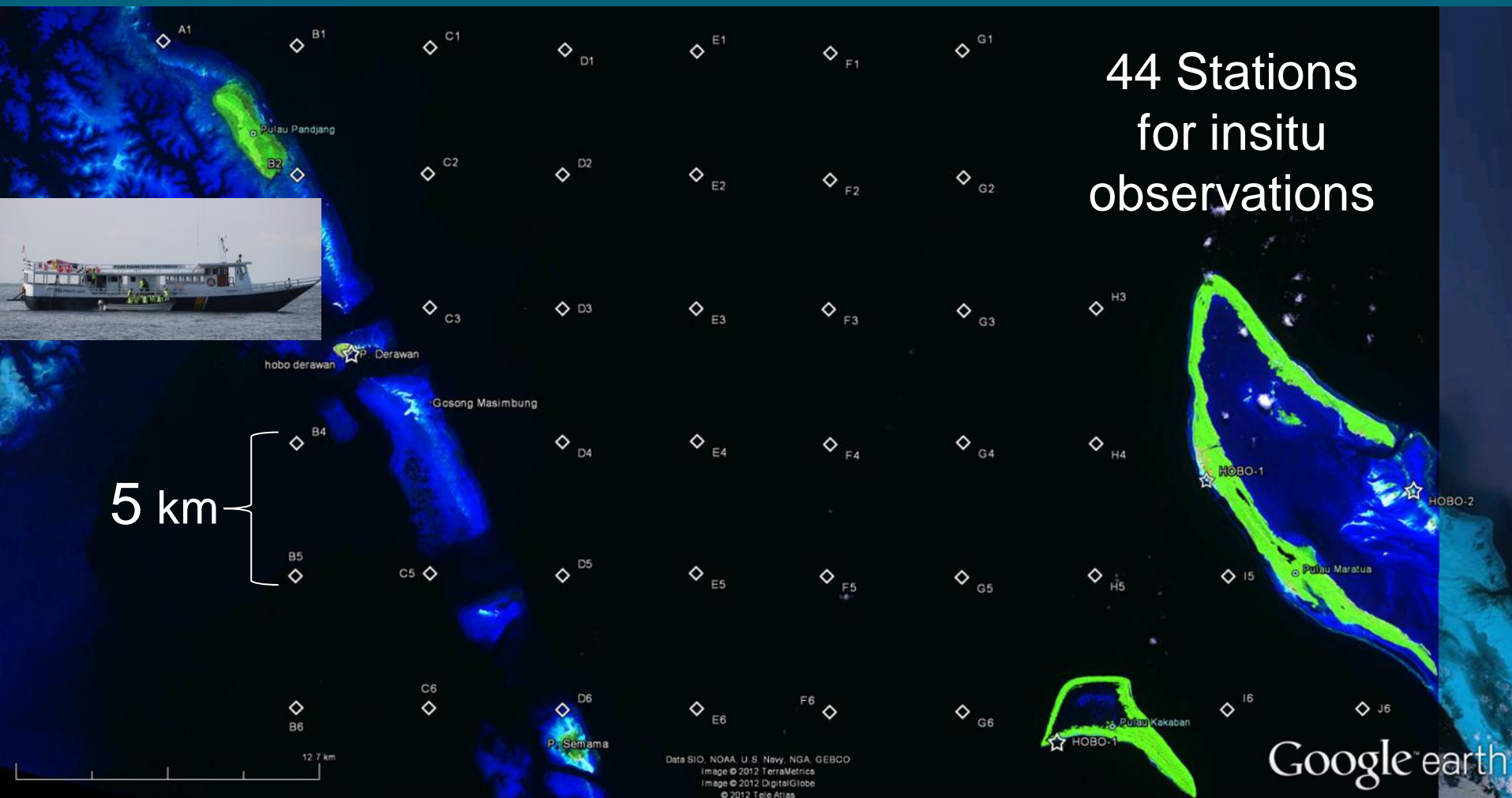


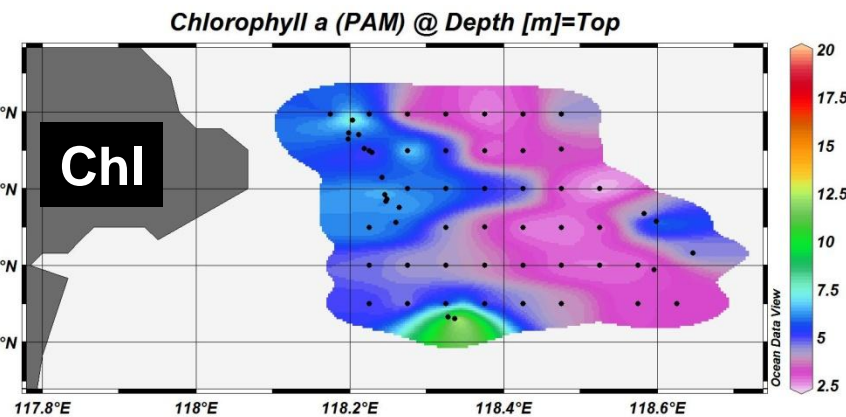
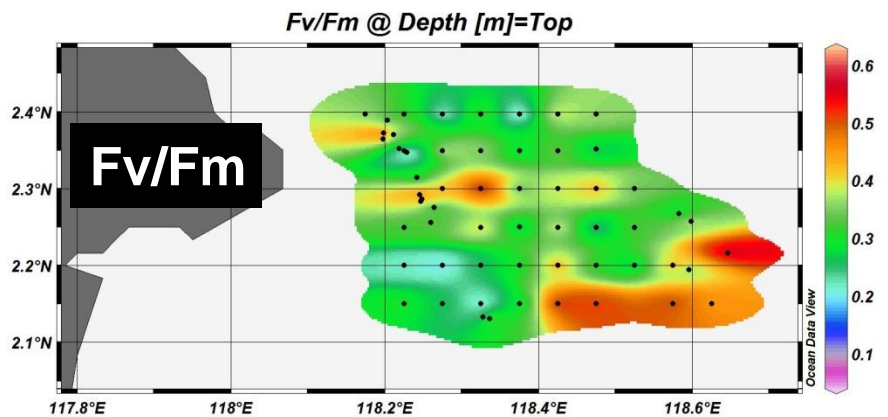
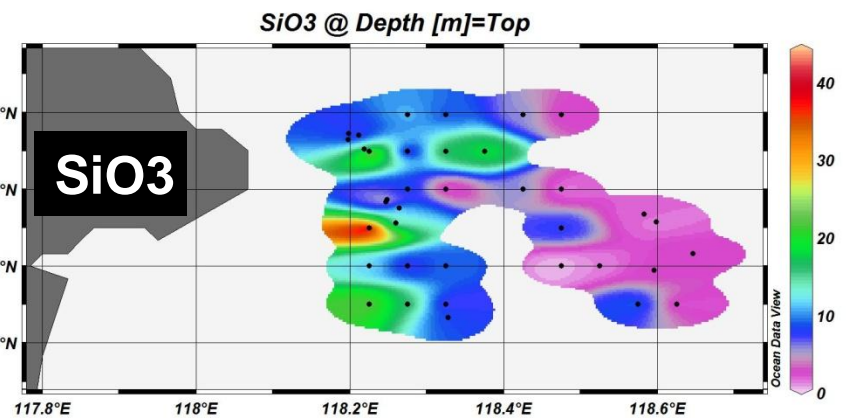
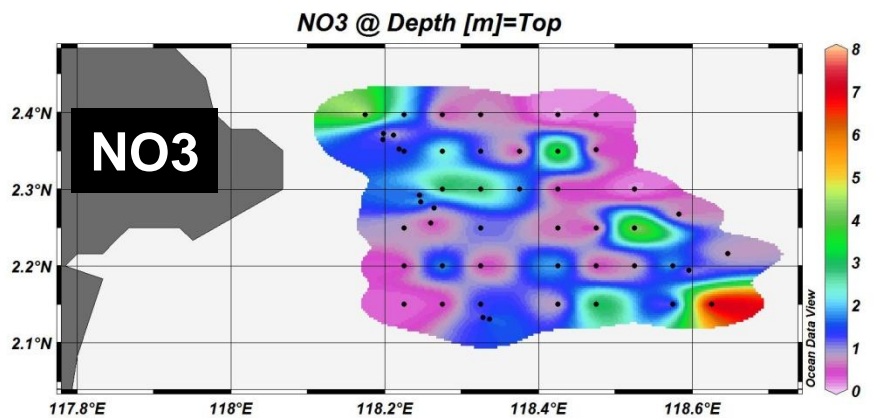
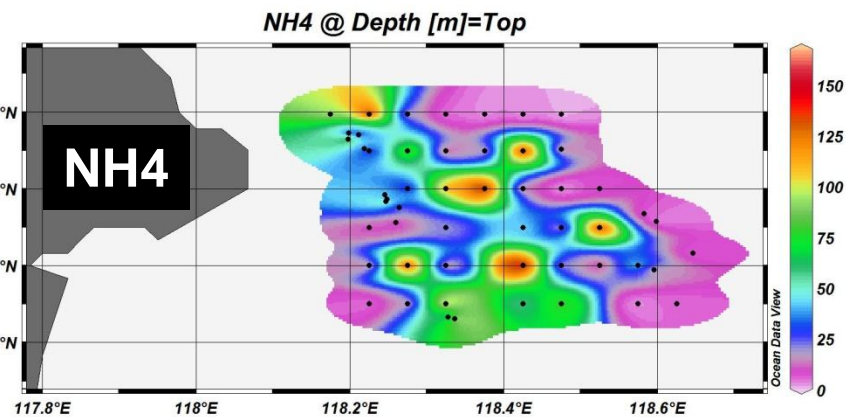
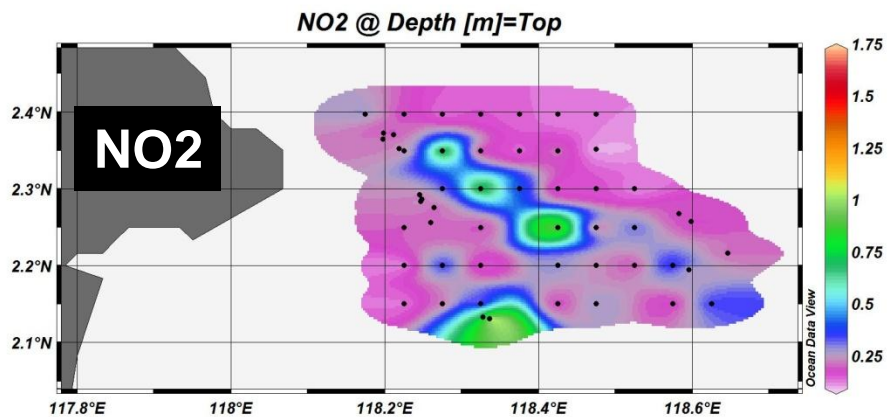
CN Ratio of Sediment



RESEARCH ACTIVITIES IN DERAWAN ISLS.

3. **Marine's Team:** Collecting meteorological, oceanographical (Physical-Chem-Bio) data for estimating and understanding the Blue Carbon dynamics in Derawan coastal-marine waters.







4. COMMUNICATION and INTERVENTION STRATEGIES on BLUE CARBON

To create an effective communication and intervention to educate and engage the public to help increase their understanding and awareness on Blue Carbon Ecosystems.



Blue Carbon Communications & Outreach Strategies

6 Steps of Planning and Strategizing Communication Programs



1. Appreciation of the situation
 - Stakeholder mapping



2. Defining the Objectives
 - What do you want to achieve



3. Determining the Public
 - Demo, psycho and socio-graphic



4. Media Selection
 - Traditional and modern media
 - Delivery technique



5. Budget
 - Cap cost (expense + fee)
 - Production, placement,



6. Evaluation
 - Lessons learnt & improvement



Blue Carbon - Comm & Outreach Strategic

Forum for Indonesian **Blue Carbon** Stakeholders



This forum plans to have regular meeting to discuss both scientific and policy of Blue Carbon.

The meeting was attended more than 20 institutions from government, international org, NGOs and Universities

Blue Carbon - Comm & Outreach Strategic

TV & Radio



Translate Blue Carbon's book into Indonesian Language

Badan Litbang KKP Riset Blue Carbon di Tanjung Lesung

Apr 10, 2013 20:38 Editor : Aas Arbi



Pemanasan Global Flora Fauna Pencemaran

The Jakarta Post

Home News Views Life Multimedia

Editor's Choice Business National Archipelago Jakarta World S

Blue carbon: A new hope for Indonesia

Andreas A. Hutanaeani, Jakarta | Opinion | Tue, August 28 2012, 4:17 AM

News paper

A- A A+



Indonesia gaungkan karbon biru

Selasa, 13 November 2012 23:34 WIB | 2529 Views

Pewarta: Ella Syafputri



Jakarta (ANTARA) Indonesia terus menyoal karbon biru (blue carbon) sebagai target peng...

Meningkap Potensi Karbon Biru Indonesia

Dari ekosistem padang lamun dan mangrove saja, ke negara-negara kepulauan di seluruh Indonesia. Konsep karbon biru sebenarnya bukan hal baru. Banyaknya potensi karbon biru dunia telah digembar...

rapan karbon dapat mencapai sekitar 136 juta ton/tahun. Selain itu, penyerapan karbon akan bertambah jika memperhatikan hamparan rumput laut yang destruktif, yakni menggunakan bom, slandis, dan pukuk dasar. Salah satu contoh kerusakan yang tinggi terjadi di kawasan Teluk Banten, Andreas menyebutkan alih fungsi



Blue Carbon - Comm & Intervention Strategic

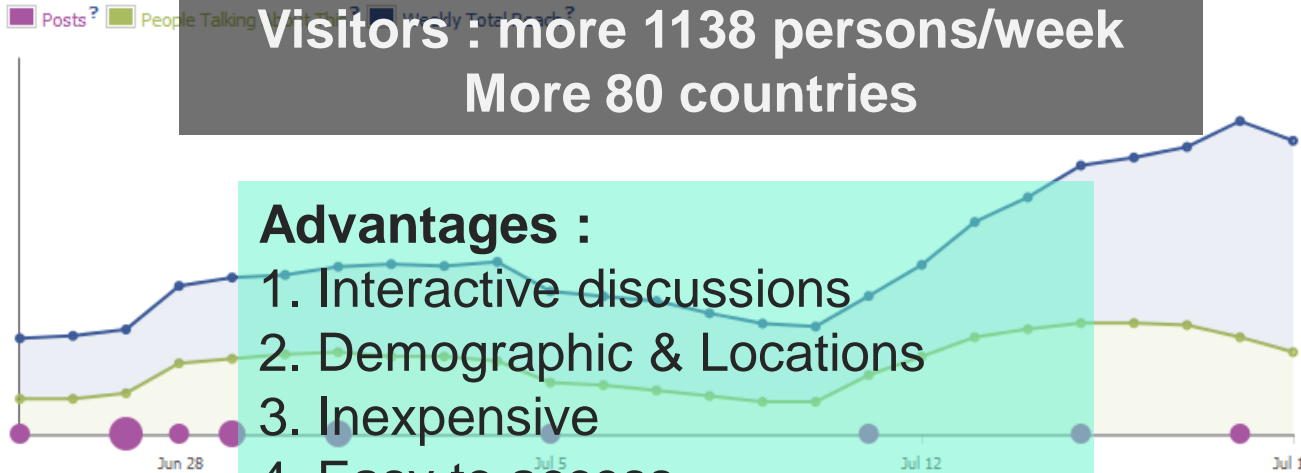
- Indonesia
- United States
- Germany
- Australia
- France
- Japan
- United Kingdom
- Malaysia
- Netherlands
- Philippines
- Singapore
- China
- Canada
- Brazil
- India
- Malta
- Qatar
- South Korea
- Israel
- Finland
- Italy
- Taiwan
- Saudi Arabia
- Belgium
- Spain
- United Arab Emirates
- Sudan
- New Zealand
- Maldives
- Thailand
- Madagaskar, etc



Blue Carbon Indonesia Timeline

Blog and Social Networks

Total Likes? **179** ↑ 2.87%
 Friends of Fans **134,639** ↑ 17.51%
 People Talking About This **15** ↓ -64.29%
 Weekly Total Reach **1,138** ↑ 108.42%

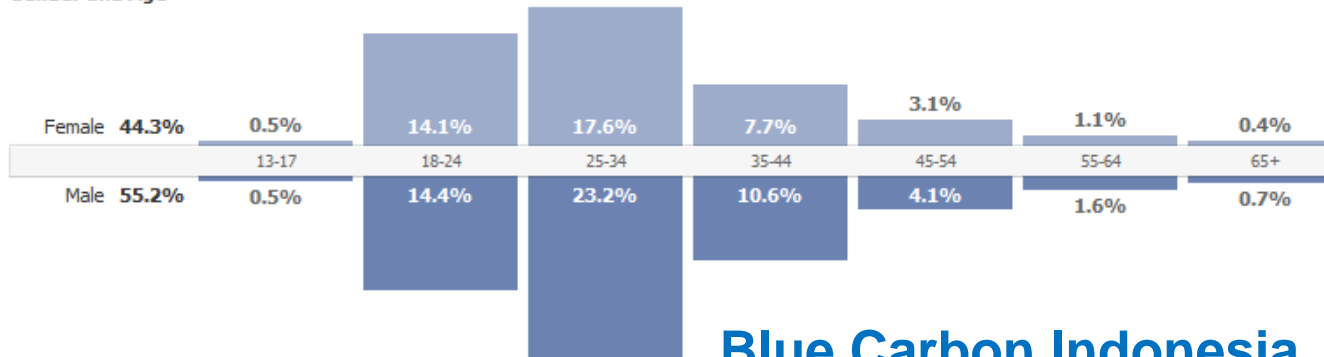


Advantages :

1. Interactive discussions
2. Demographic & Locations
3. Inexpensive
4. Easy to access
5. Less maintenance

Who You Reached (Demographics and Location)

Gender and Age?



Blue Carbon Indonesia

5. Way forward:

1. National Seminar/Workshop on Blue Carbon in Jakarta, 10-12 December 2013

Objectives:

Develop national strategic actions on Blue Carbon – Science Plan and Policy Briefs

2. Establishing Blue Carbon Center To links between Science and Policy on Blue Carbon .

6. Conclusion

The key messages for developing BC Policy in Indonesia

1. Provide Scientific information on BC
2. Create good communications among BC stakeholders.
3. Enhance the public awareness and understanding of BC ecosystem .

Thank You !!

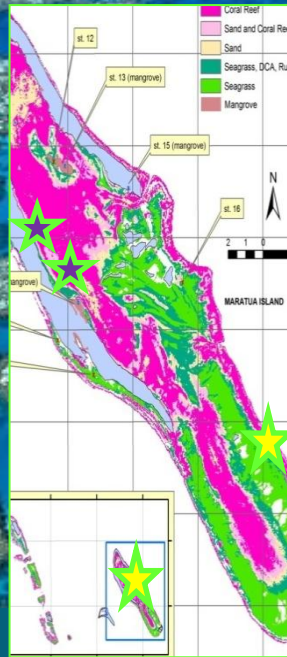
Blue Carbon Center

**Research Center for Coastal and Marine Resources
Agency for Research & Development of Marine and Fisheries
Ministry of Marine Affairs & Fisheries**

email : andreas (at) kkp.go.id



THANK YOU !!!



Blue Carbon Center

**Agency for R & D of Marine and Fisheries
Ministry of Marine Affairs and Fisheries**

email : andreas (at) kkp.go.id

