



COORDINATING MINISTRY FOR MARITIME AFFAIRS
REPUBLIC OF INDONESIA

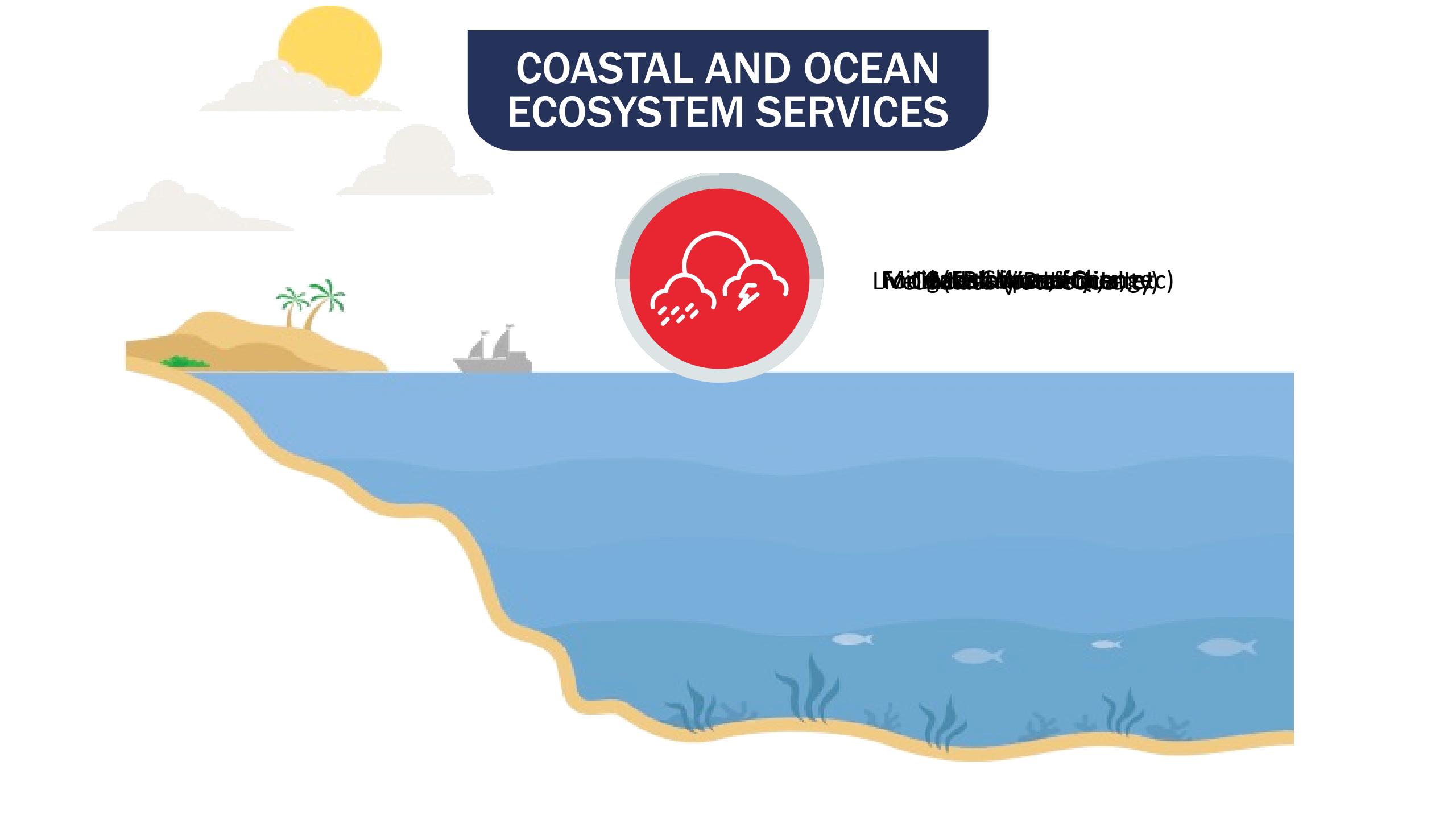
INDONESIA OCEAN AGENDA ON BLUE CARBON

By. Andreas A. Hutahaean*

*Email: andreashut@maritim.go.id

EAST ASIA SEAS CONGRES
Iloilo, 27 November 2018



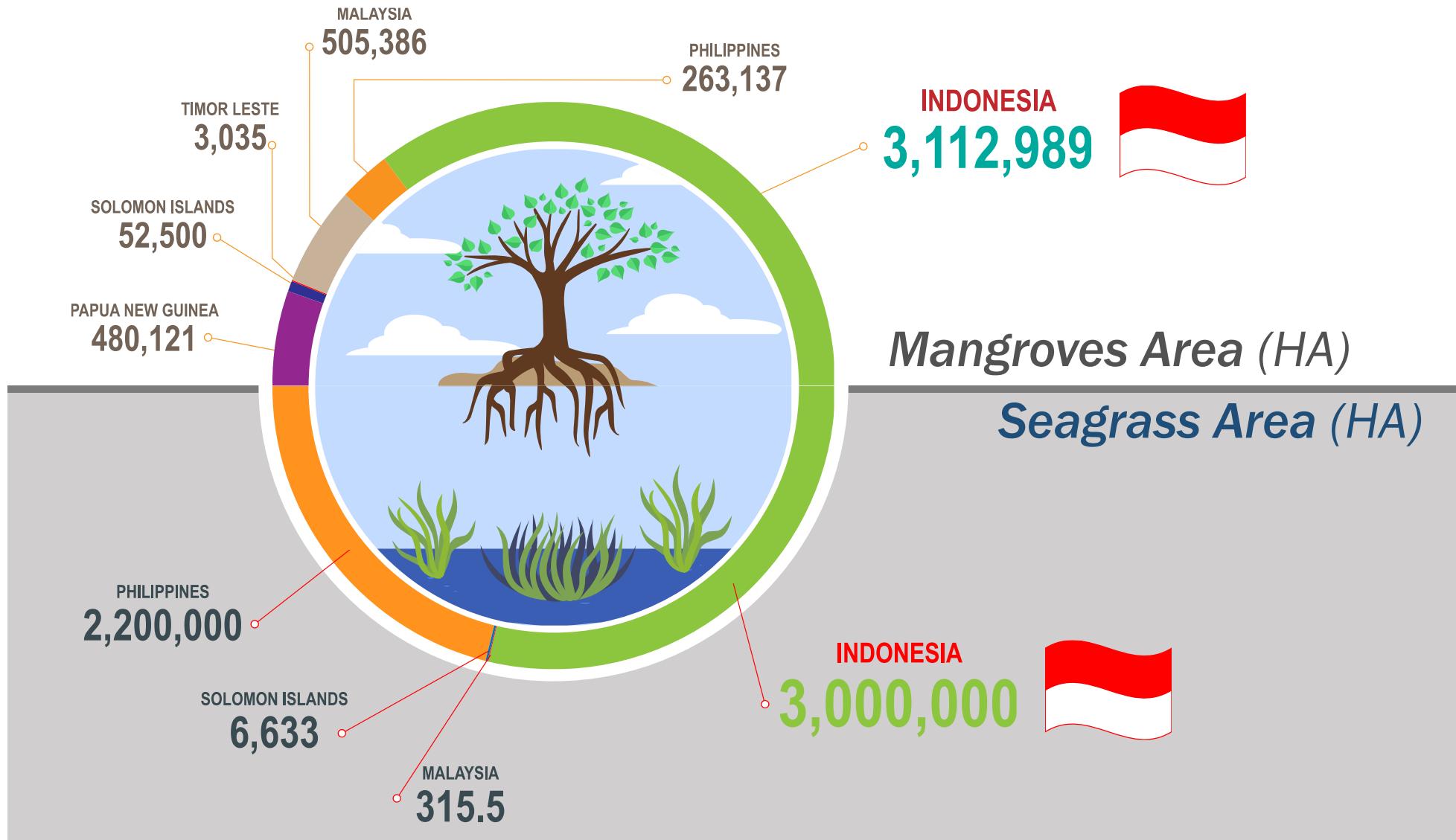


COASTAL AND OCEAN ECOSYSTEM SERVICES



Mitigation (adaptation)

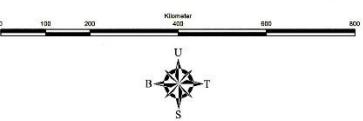
INDONESIA BLUE CARBON SIGNIFICANCY



MAP of MANGROVE ECOSYSTEM



SKALA 1 : 5.000.000



KETERANGAN :

- IBUKOTA NEGARA
- IBUKOTA PROVINSI
- KOTA LAIN
- GARIS BATAS NEGARA
- GARIS BATAS PROVINSI
- JALAN ARTERI
- JALAN KOLEKTOR

MANGROVE :

- GARIS PANTAI
- SUNGAI
- DANAU / WADUW

RIVAIAT PETA

Datu Mangrove Nasional dilihat mengikut sistem
perancangan dan klasifikasi yang berbeza-beza.
Untuk maklumat lanjut, sila rujuk:
1. Peti Postmark Indonesia, Balai Informasi Geospasial, alamat 1293/00, 156/00, 128/00, telur 1893/2014
2. Peti Postmark Brunei Darussalam, Balai Informasi Geospasial, alamat 1293/00, Januari 2013
3. Peti Postmark Brunei Darussalam, Balai Informasi Geospasial, alamat 1293/00, Januari 2014
4. Peti Postmark Brunei Darussalam, Balai Informasi Geospasial, alamat 1293/00, Januari 2015
5. Peti Postmark Brunei Darussalam, Balai Informasi Geospasial, alamat 1293/00, Januari 2016
6. Peti Postmark Brunei Darussalam, Balai Informasi Geospasial, alamat 1293/00, Januari 2017
7. Data Proyeksi Peti Postmark Jepun, Kementerian Kejuruteraan dan Perikanan, alamat 152/00, telur 2306/2013.
8. Data Proyeksi Peti Postmark Jepun, Kementerian Kejuruteraan dan Perikanan, alamat 152/00, telur 2306/2011.
9. Data Proyeksi Peti Postmark Jepun, Kementerian Kejuruteraan dan Perikanan, alamat 152/00, telur 2310/2012.
10. Data Proyeksi Peti Postmark Jepun, Kementerian Kejuruteraan dan Perikanan, alamat 152/00, telur 2310/2013.

SUMBER DATA:

1. Peti Postmark Indonesia, Balai Informasi Geospasial, alamat 1293/00, 156/00, 128/00, telur 1893/2014
 2. Peti Postmark Brunei Darussalam, Balai Informasi Geospasial, alamat 1293/00, Januari 2013
 3. Peti Postmark Brunei Darussalam, Balai Informasi Geospasial, alamat 1293/00, Januari 2014
 4. Peti Postmark Brunei Darussalam, Balai Informasi Geospasial, alamat 1293/00, Januari 2015
 5. Peti Postmark Brunei Darussalam, Balai Informasi Geospasial, alamat 1293/00, Januari 2016
 6. Peti Postmark Brunei Darussalam, Balai Informasi Geospasial, alamat 1293/00, Januari 2017
 7. Data Proyeksi Peti Postmark Jepun, Kementerian Kejuruteraan dan Perikanan, alamat 152/00, telur 2306/2013.
 8. Data Proyeksi Peti Postmark Jepun, Kementerian Kejuruteraan dan Perikanan, alamat 152/00, telur 2306/2011.
 9. Data Proyeksi Peti Postmark Jepun, Kementerian Kejuruteraan dan Perikanan, alamat 152/00, telur 2310/2012.
 10. Data Proyeksi Peti Postmark Jepun, Kementerian Kejuruteraan dan Perikanan, alamat 152/00, telur 2310/2013.
- Orientasi peta:
BAGIAN INFORMASI GEOSPASIAL (BIG)
Jl. Peti Postmark No. 152, Kuningan, Jakarta Selatan
Edisi Tahun 2014
- Jika terdapat kesalahan dalam peta ini, mohon disampaikan kepada BIG
a. Peti Postmark Nasional
b. Peti Postmark Brunei Darussalam
c. Peti Postmark Jepun
d. Peti Postmark Indonesia
e. Peti Postmark Negara
f. Peti Postmark Negara Nasional



KEMENTERIAN
LINGKUNGAN HIDUP
DAN KEHUTANAN



KEMENTERIAN
KELAUTAN DAN PERIKANAN



LEMBAGA PENANAMAN
DAN ANTRIKSA NASIONAL



BADAN
INFORMASI
GEOSPASIAL



Wetlands
INTERNATIONAL

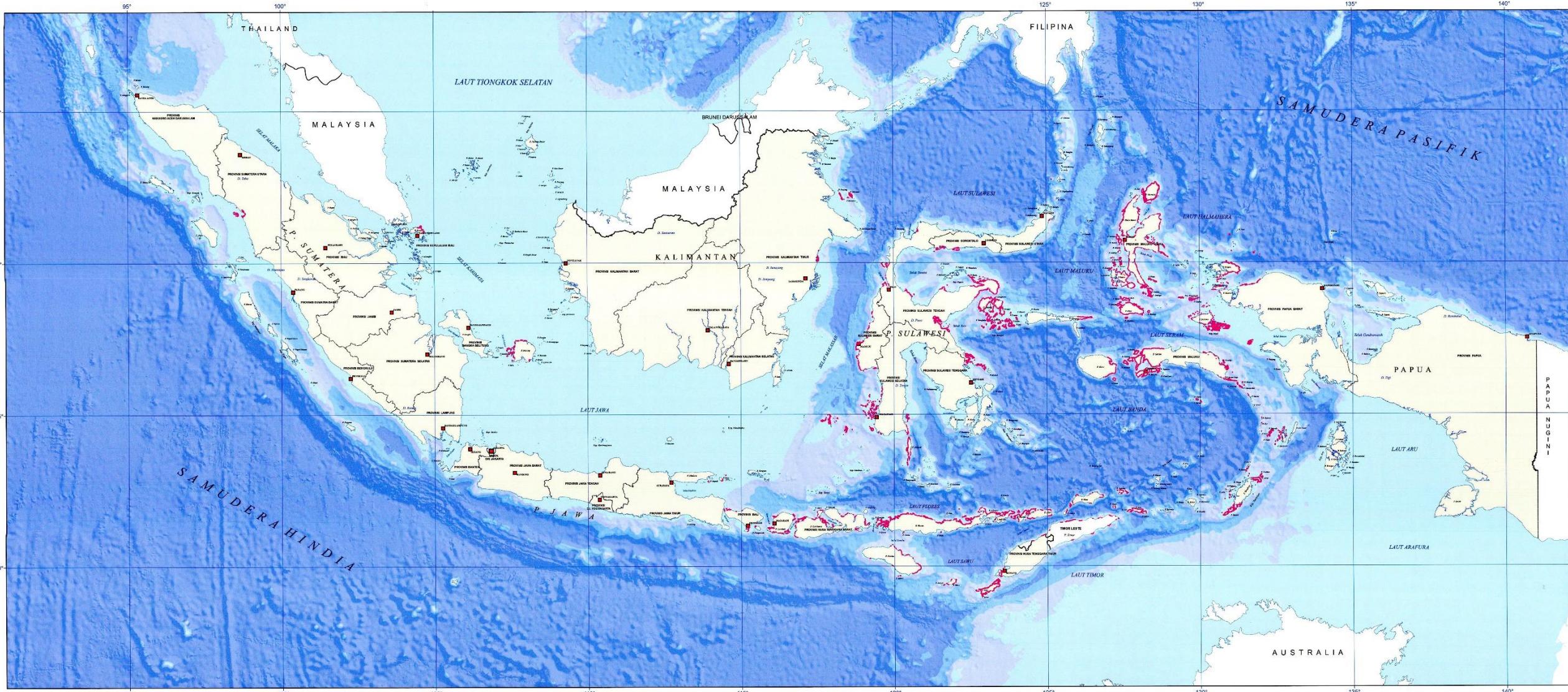
[Signature]

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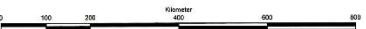
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MAP of SEAGRASS ECOSYSTEM



SKALA 1 : 5.000.000



KETERANGAN :

- IBUKOTA NEGARA
- IBUKOTA PROVINSI
- KOTA LAIN
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- GARIS BATAS PROVINSI
- JALAN ARTERI
- JALAN KOLEKTOR
- GARIS PANTAI SUNGAI
- DANAU / WADUK

HABITAT LAMUN :



RAMAYAT PETA

Batu Patah Lamun Nasional adalah daerah yang terkenal dengan konsentrasi batu patah yang besar di seluruh dunia. Data batu patah Batu Patah ini merupakan hasil dari penambangan batu patah yang dilakukan oleh perusahaan tambang batu patah di Batu Patah. Batu Patah merupakan salah satu daerah yang terkenal dengan batu patah yang berkualitas tinggi dan banyak digunakan dalam pembangunan bangunan.

SUMBER DATA

1. Konservasi Kepulauan Riau
2. Komisi Lingkungan Hidup dan Kehutanan
3. Badan Geografi Nasional
4. Badan Geografi Nasional
5. Badan Geografi Nasional
6. Badan Geografi Nasional
7. Badan Geografi Nasional
8. Badan Geografi Nasional
9. Badan Geografi Nasional
10. Badan Geografi Nasional
11. World Wide Fund

EDITION

Jl. Raya Jakarta - Bandung Km. 100
Edisi Pertama
Edisi Terbaru

KEMENTERIAN
KELAUTAN DAN PERIKANAN

LEMBAGA ILMI
PENGETAHUAN INDONESIA

LEMBAGA PENERBANGAN
DAN ANTARIKSA NASIONAL

BANDAR
INFORMASI GEOSPATIAL

Nurwulan

Arifin

Mulyati

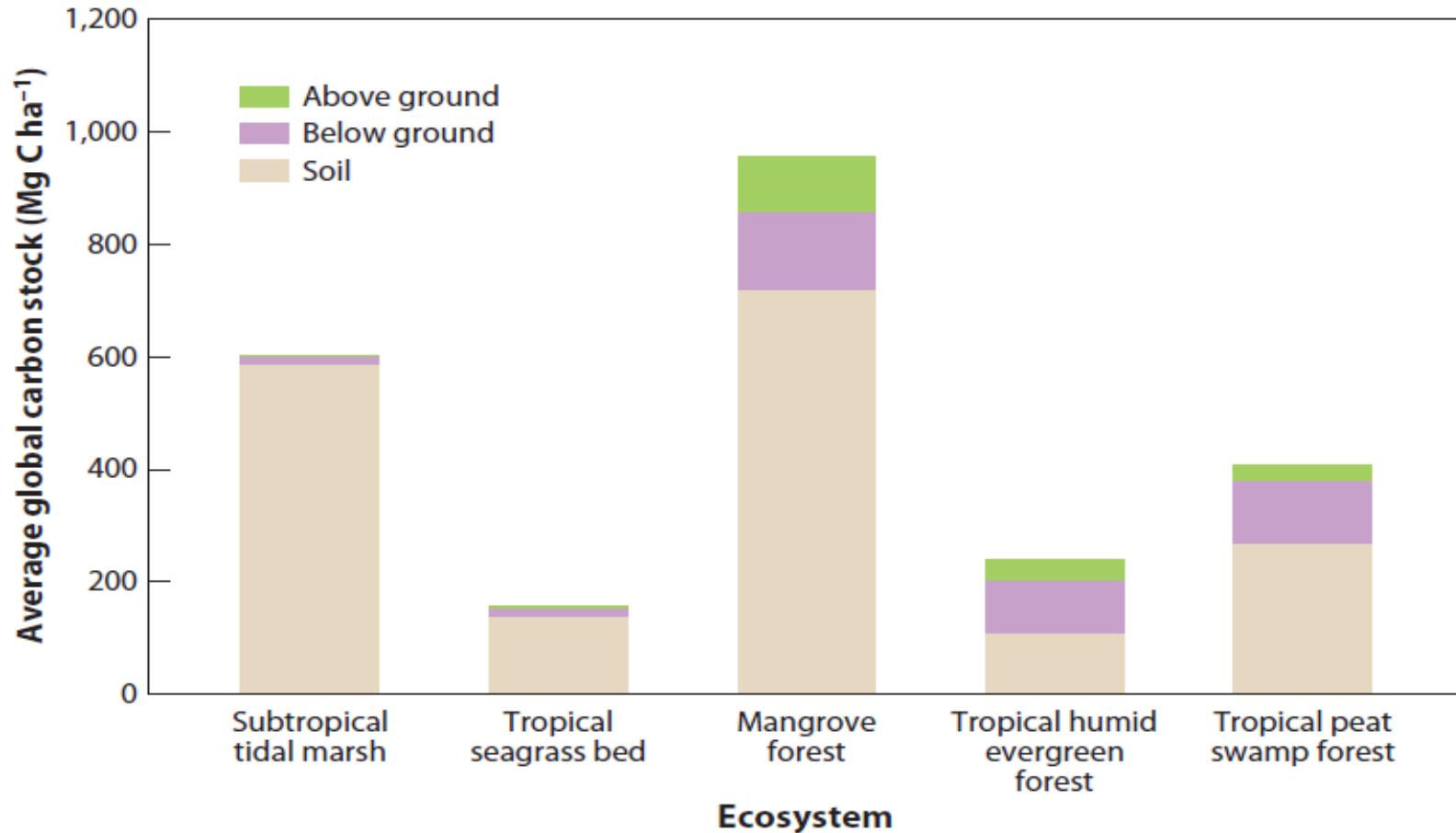
Sugiharto

The Nature Conservancy

THE NATURE CONSERVANCY

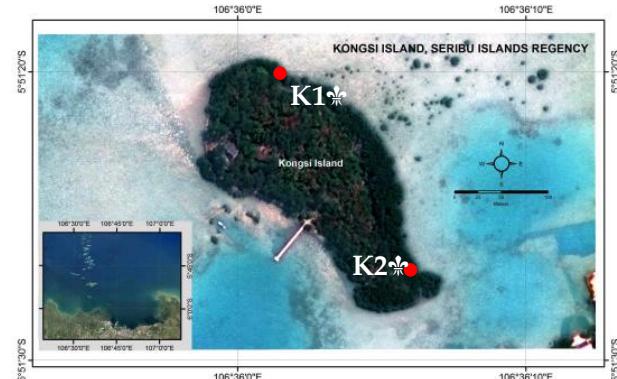
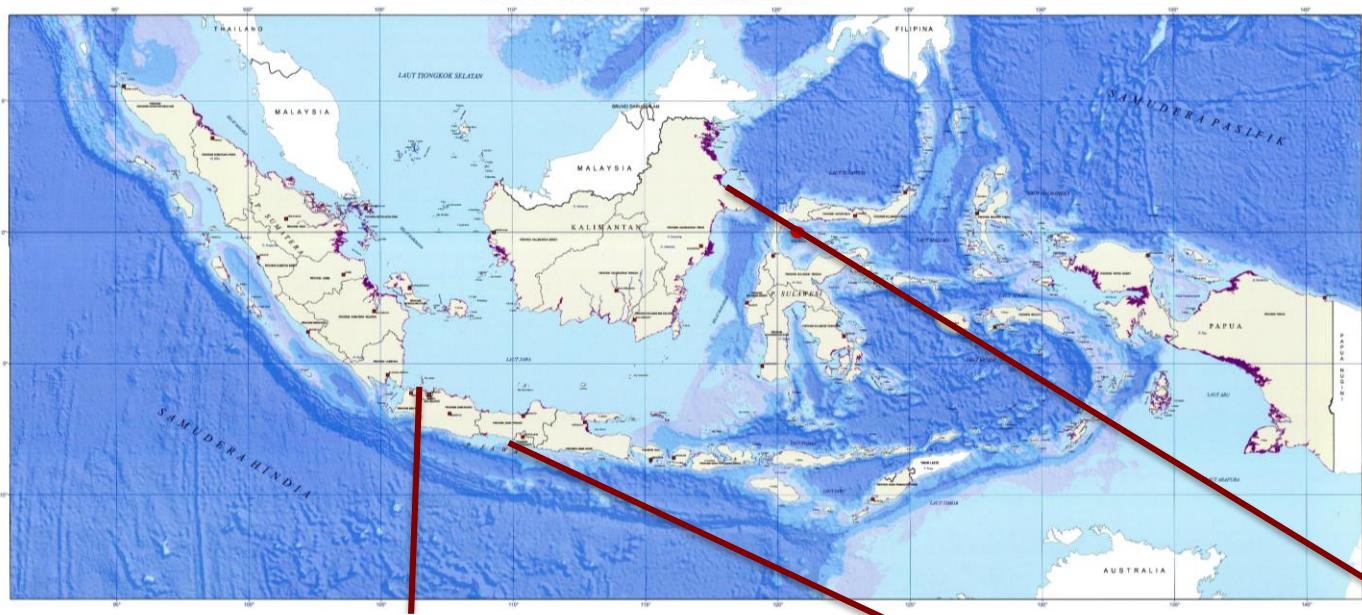
Background

Seagrass & Mangrove are important natural carbon sink

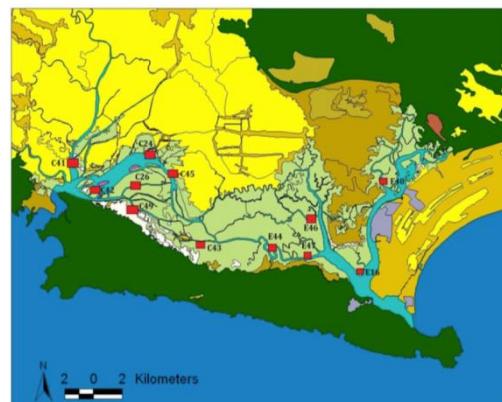


Alongi et al., 2014

Mangrove's Habitat

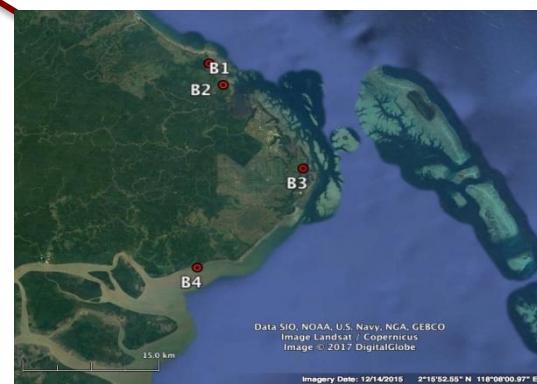
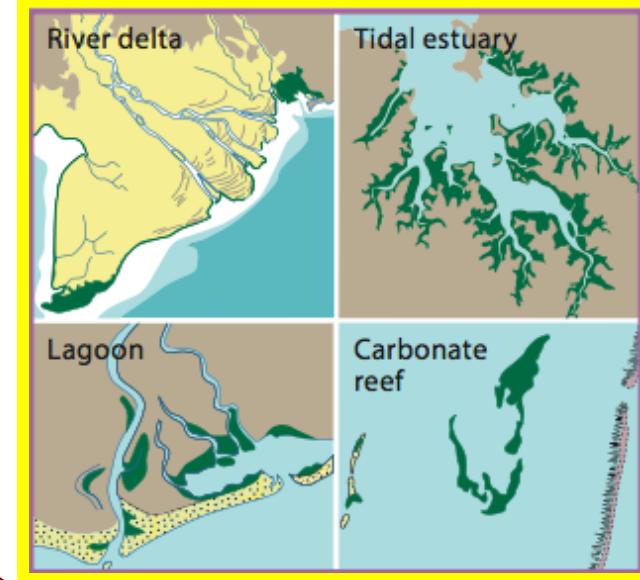


An undegraded marine mangrove in Kongsi Island,



A degraded estuarine mangrove, in Segara Anakan Lagoon, Central Java

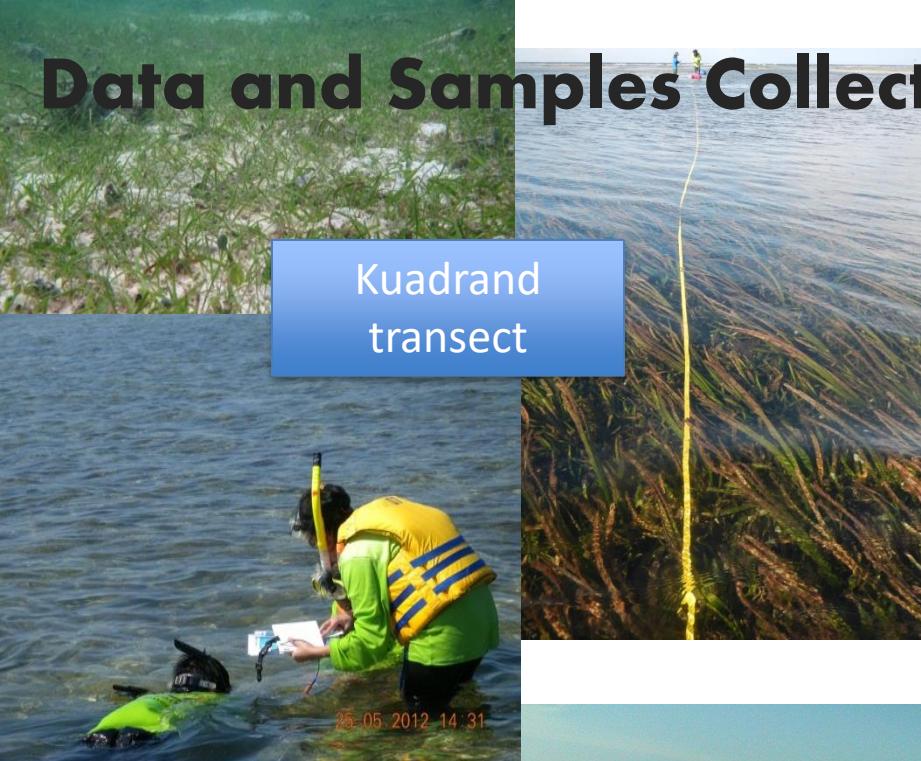
4 Major Mangrove Settings



An undegraded estuarine mangrove, in Berau Delta

Data and Samples Collection at COASTAL Ecosystem

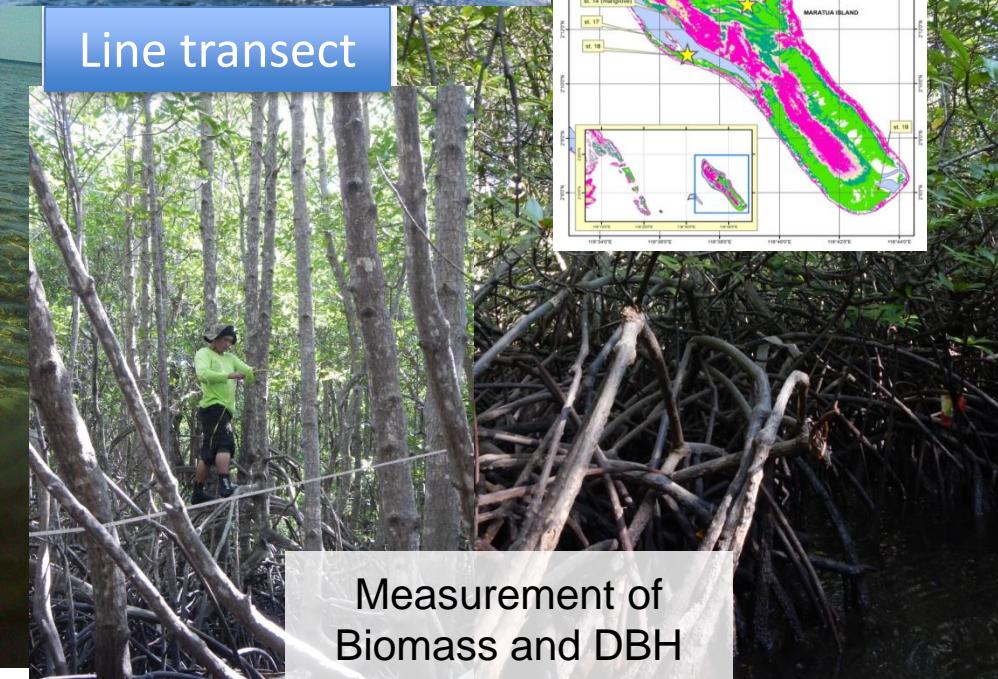
Kuadrand
transect



Sediment Core

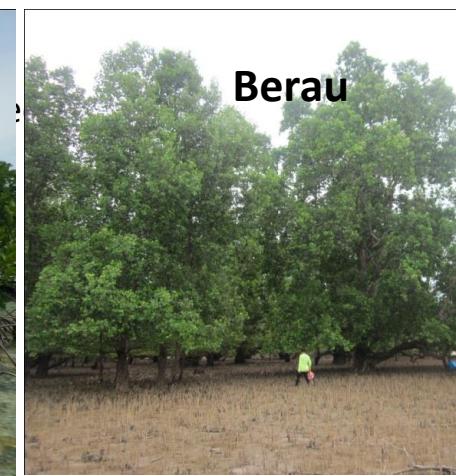
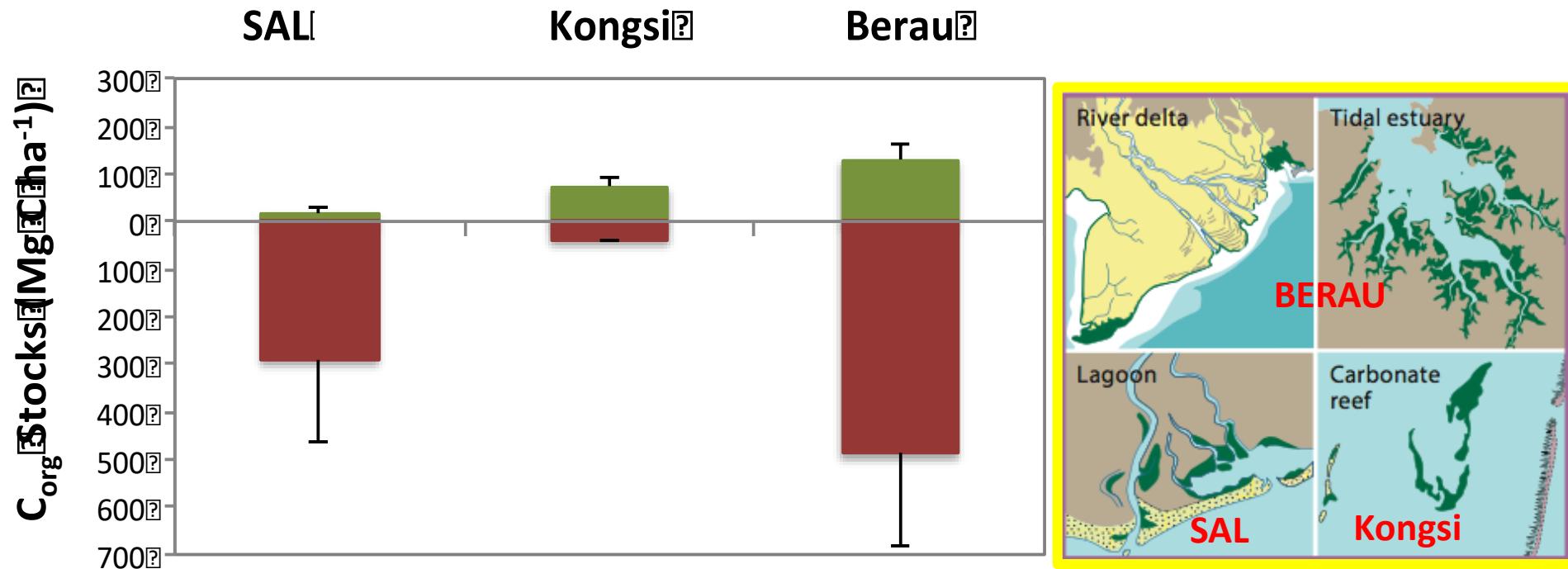


Line transect



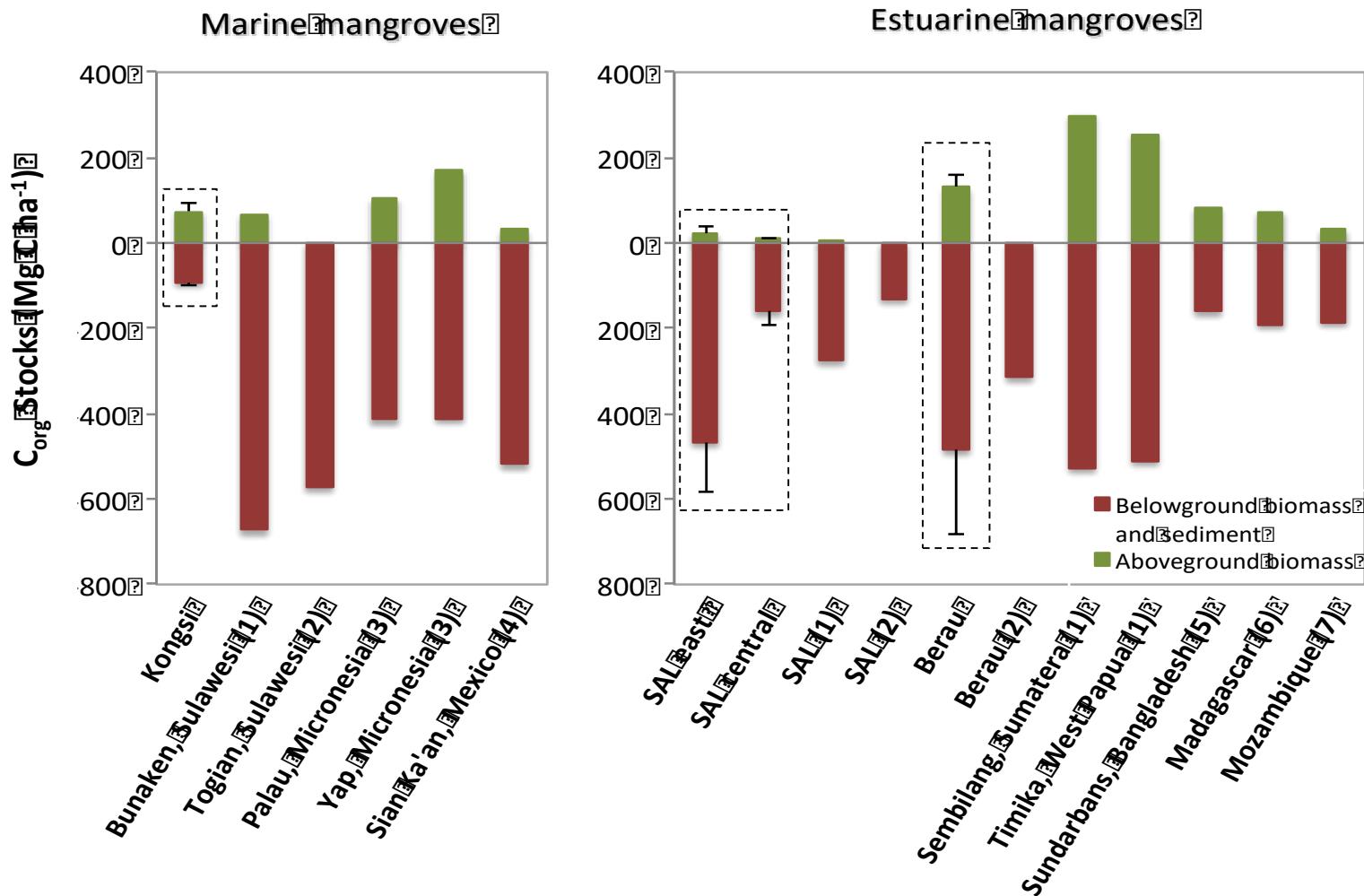
Measurement of
Biomass and DBH

Total C_{org} Stocks In The Studied Sites

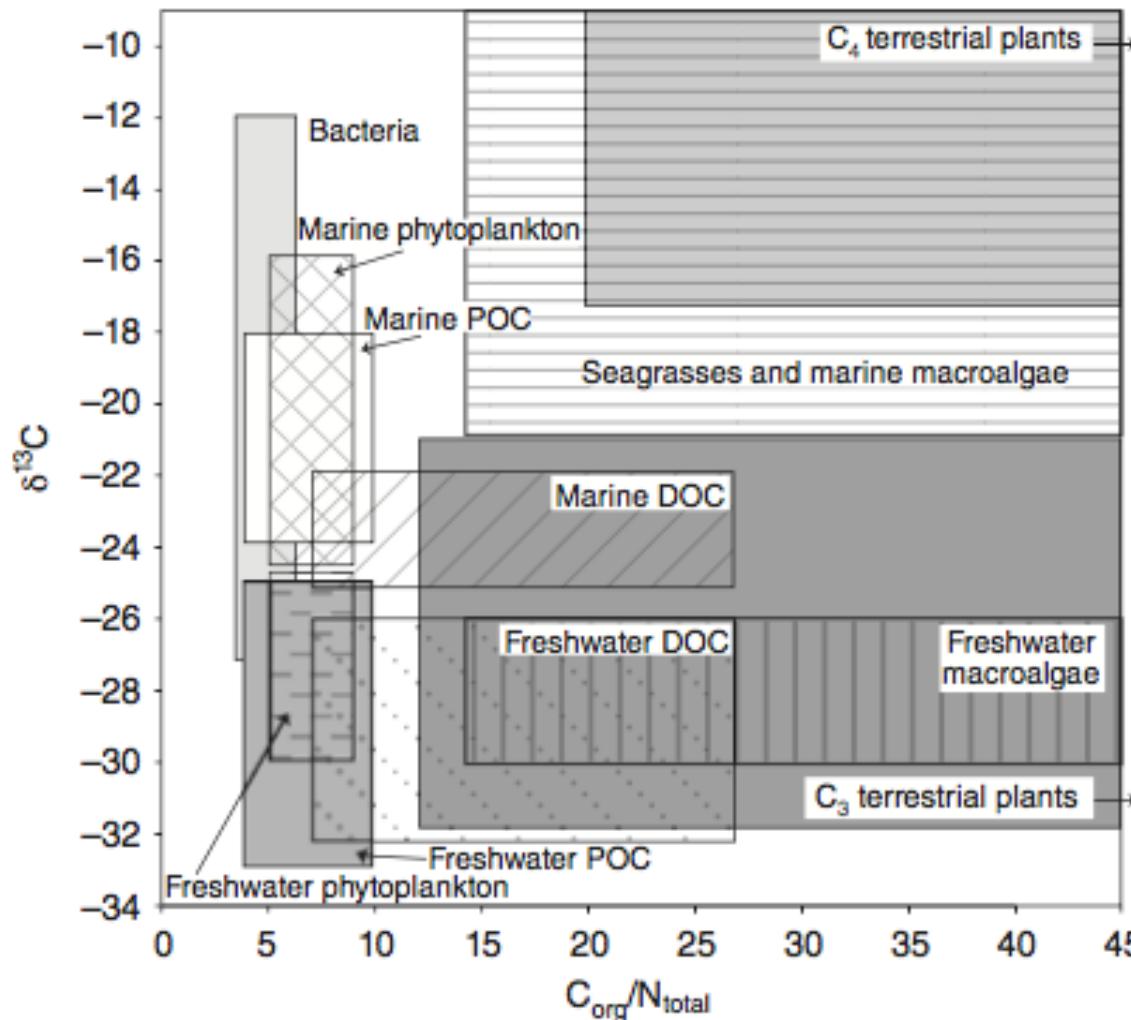


Total C_{org} Stocks

C_{org} stocks (at the top 1 m depth) from several sites

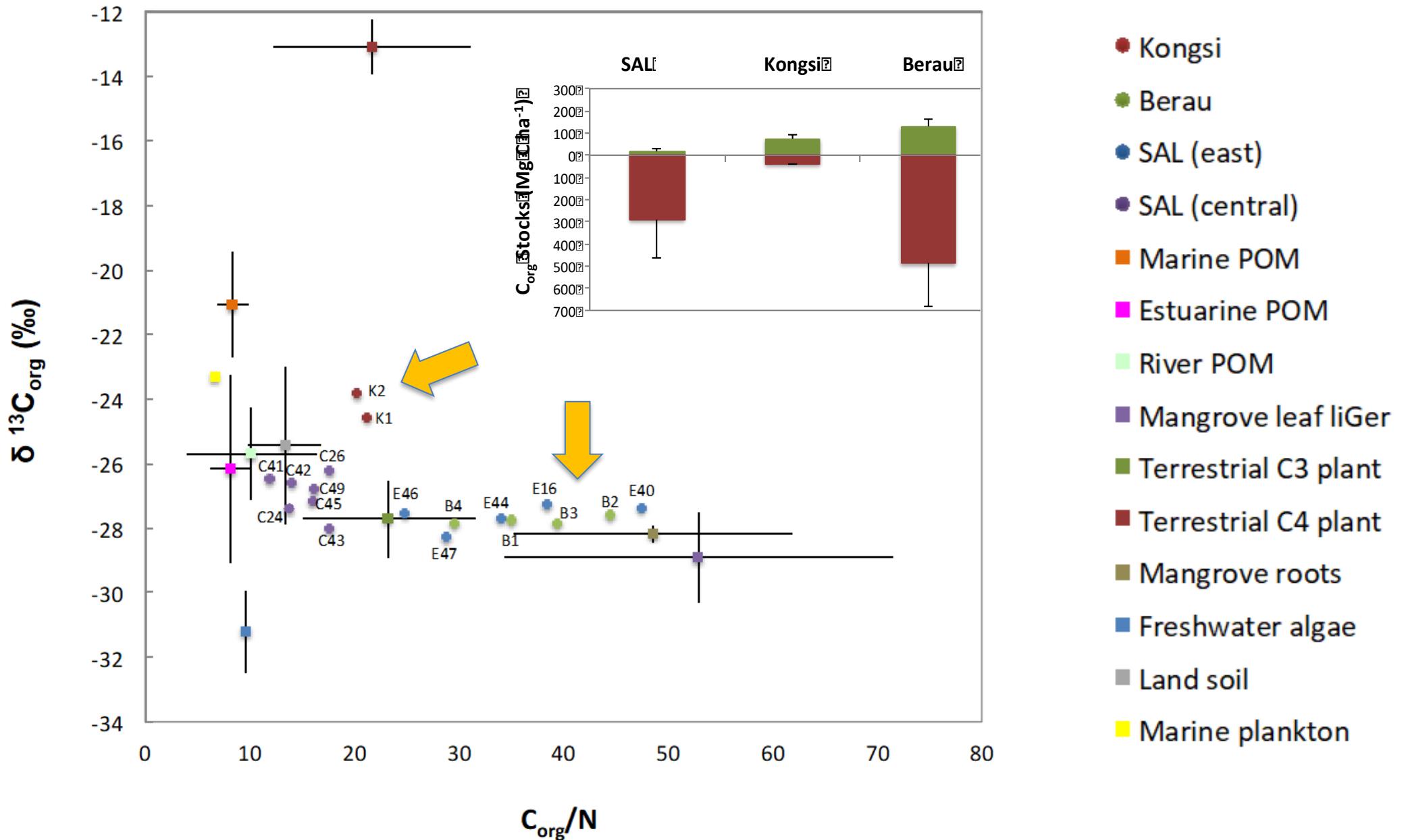


Tracing The Sources Of Organic Matter Using The Stable Isotope Composition ($\delta^{13}\text{C}_{\text{org}}$) and C/N ratio

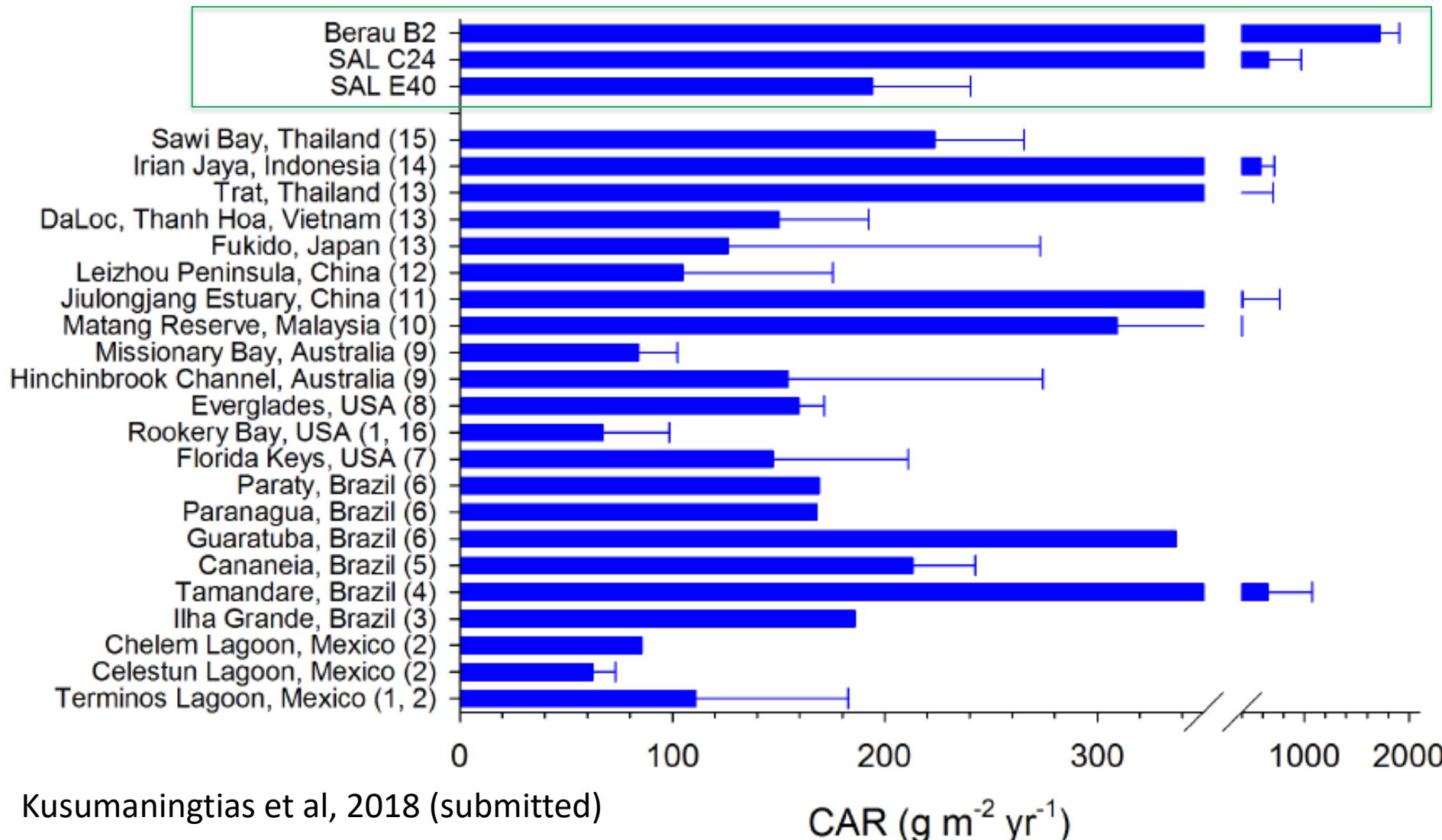


Khan et al. 2015

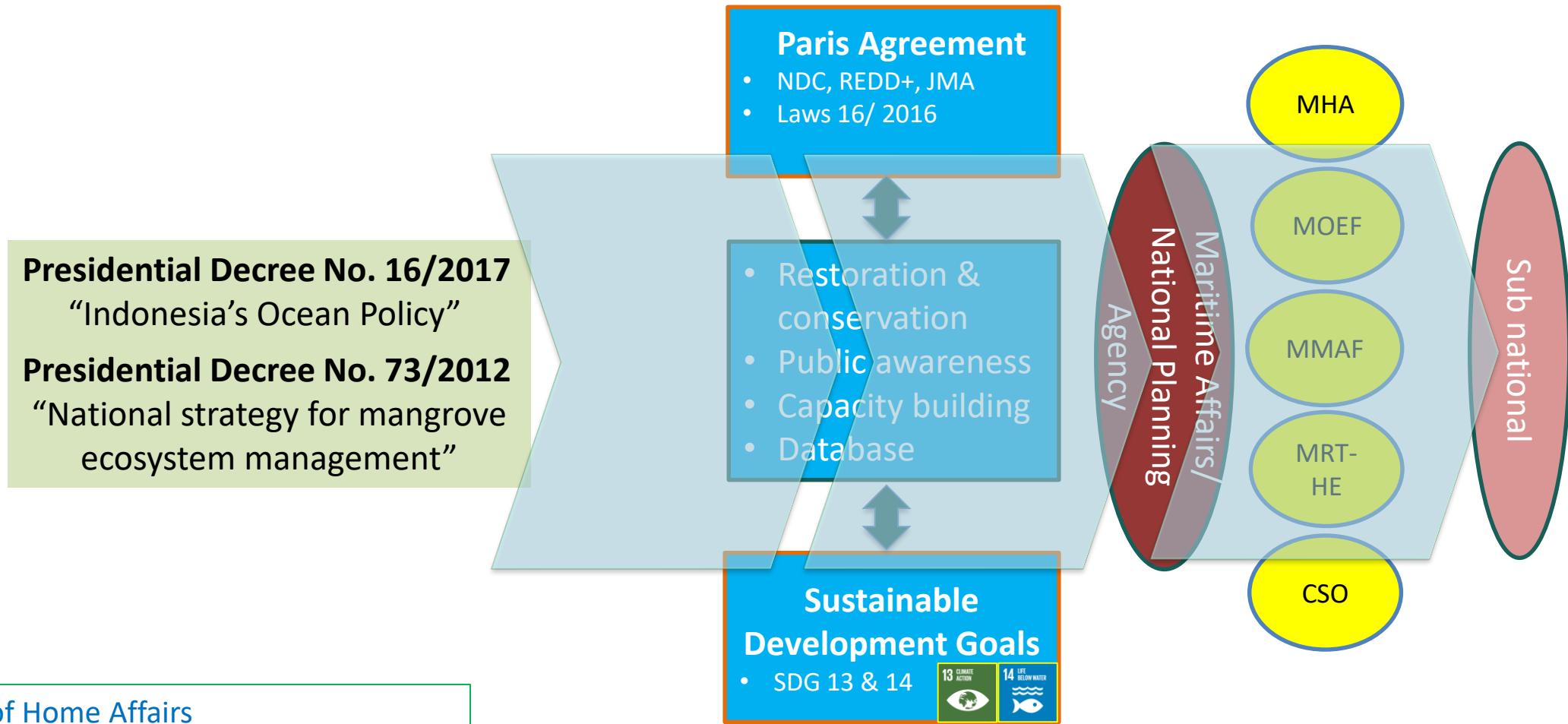
The Origin of Sediment Organic Carbon



Carbon Accumulation Rate



Mainstreaming Indonesia Blue Carbon In The Regulatory Framework



MHA : Mins of Home Affairs

MOEF : Mins of Environment & Forestry

MMAF : Mins of Marine Affairs & Fisheries

MRT-HE : Mins of Research, Tech & Higher Edu

CSO : Civil Society Organizations/Private Sectors

Conserve and sustainably use the oceans, seas and marine resources.



THE GOVERNMENT
OF INDONESIA



COP24·KATOWICE 2018
UNITED NATIONS CLIMATE CHANGE CONFERENCE

SPECIAL EVENT ON INDONESIA OCEAN DAY
at **COP 24** in **POLAND**
"Mainstreaming Ocean in Climate Change Actions"

Ocean plays major roles for economic growth and manage earth's climate system. A healthy ocean is important for global human welfare. Its sustainable development cannot be achieved by technological solutions, political regulations or financial instruments alone. We need to change the way we think and act together for Our Ocean.

Opening Session

- Welcome Remark by H.E. Siti Nurbaya Bakar (Minister of Environment and Forestry)
- Keynote Speaker by H.E. Luhut B. Pandjaitan (Coordinating Minister for Maritime Affairs)

Session 1
High Level Dialogue in Mainstreaming Ocean in Climate Change Discussion

Session 2
Blue Carbon: Mangrove Rehabilitation & Coastal Resilience

Session 3
Blended Finance for Marine Conservation

Session 4
Green/Low Carbon Development in Maritime Sector

Special Session
Smart & Innovative Society Actions in Climate Change

- Women Empowerment
- Marine Debris
- Ocean Observation for Climate Change Actions

Session on CSO Partnership
Ocean-Climate Actions

Organized by:

Contact Person:
COORDINATING MINISTRY FOR MARITIME AFFAIRS
Kementerian Maritim, Jl. MH. Thamrin No. 8 Jakarta 10340
Cpt. ANDREAS A. HUTAHAEAN, Ph.D
email: andreashtu@maritim.go.id & asdep_ptek@maritim.go.id
<https://maritim.go.id>

A NATIONAL PROGRAM

Indonesia Blue Carbon Initiative

Designed to coordinate blue carbon Scientific-Policy activities, for developing an effective national policy in response to blue carbon and other related ecosystem services to improve coastal community livelihoods

Indonesia Blue Carbon Initiative

Milestones

National
Blue Carbon
SECRETARIAT

Programs &
Information
HUB

Mainstreaming
Blue Carbon
into **POLICY**

Expected Outcomes

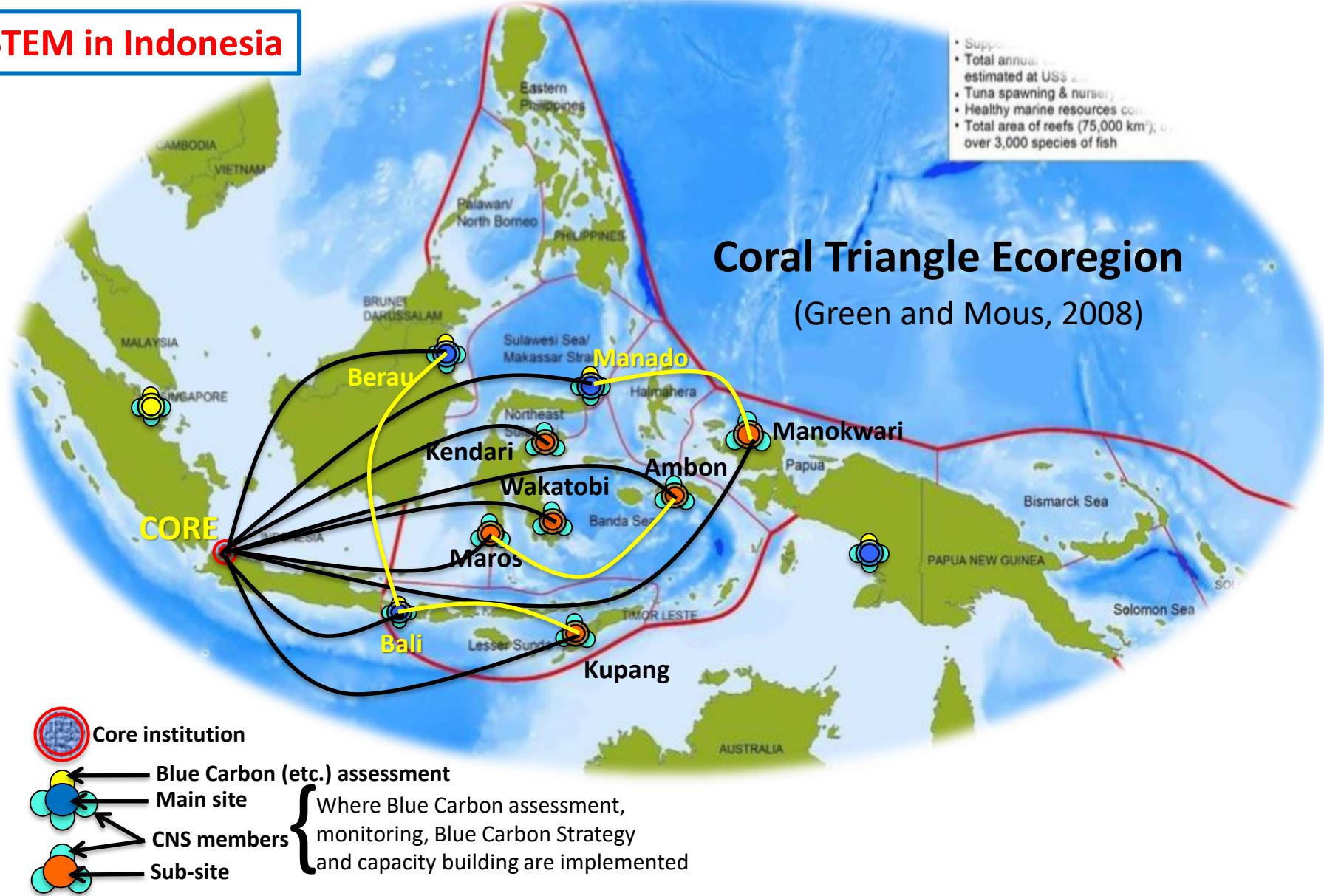
Incorporation of blue carbon as a focused article in national climate change policy:

- Presidential Decree (KEPPRES)
- National Policy towards Low Carbon Development Plan (RPJM, NDC, RAN)

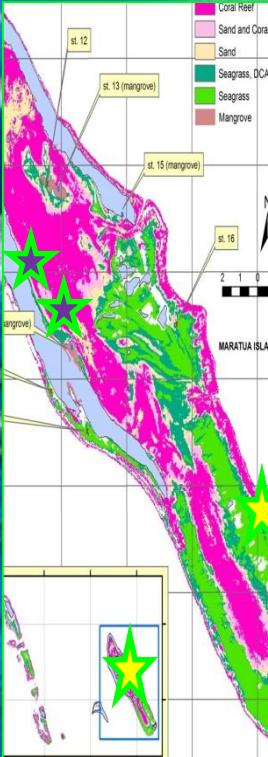
CHALLENGES

- Up dating maps of Mangrove & Seagrass Ecosystems regularly
- Standard Scale 1 : 250.000
- Need to increase ground check
- Multi disciplinary Sciences are needed

NETWORK SYSTEM in Indonesia



Thank You....!



Coordinating Ministry for Maritime Affairs
Republic of Indonesia

