# KELAUTAN DUNIA DAN POSISI INDONESIA

Oleh:

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Direktur Sumberdaya Perikanan dan Akuakultur

Food & Agriculture Organization of the United Nations (FAO)

Rome - Italy

# FOOD & AGRICULTURE ORGANIZATION OF THE UNITED NATIONS:

Anggota: 197 Negara,

Jumlah Staff di seluruh Dunia: 11.000

Jumlah Staff Professional: 3000

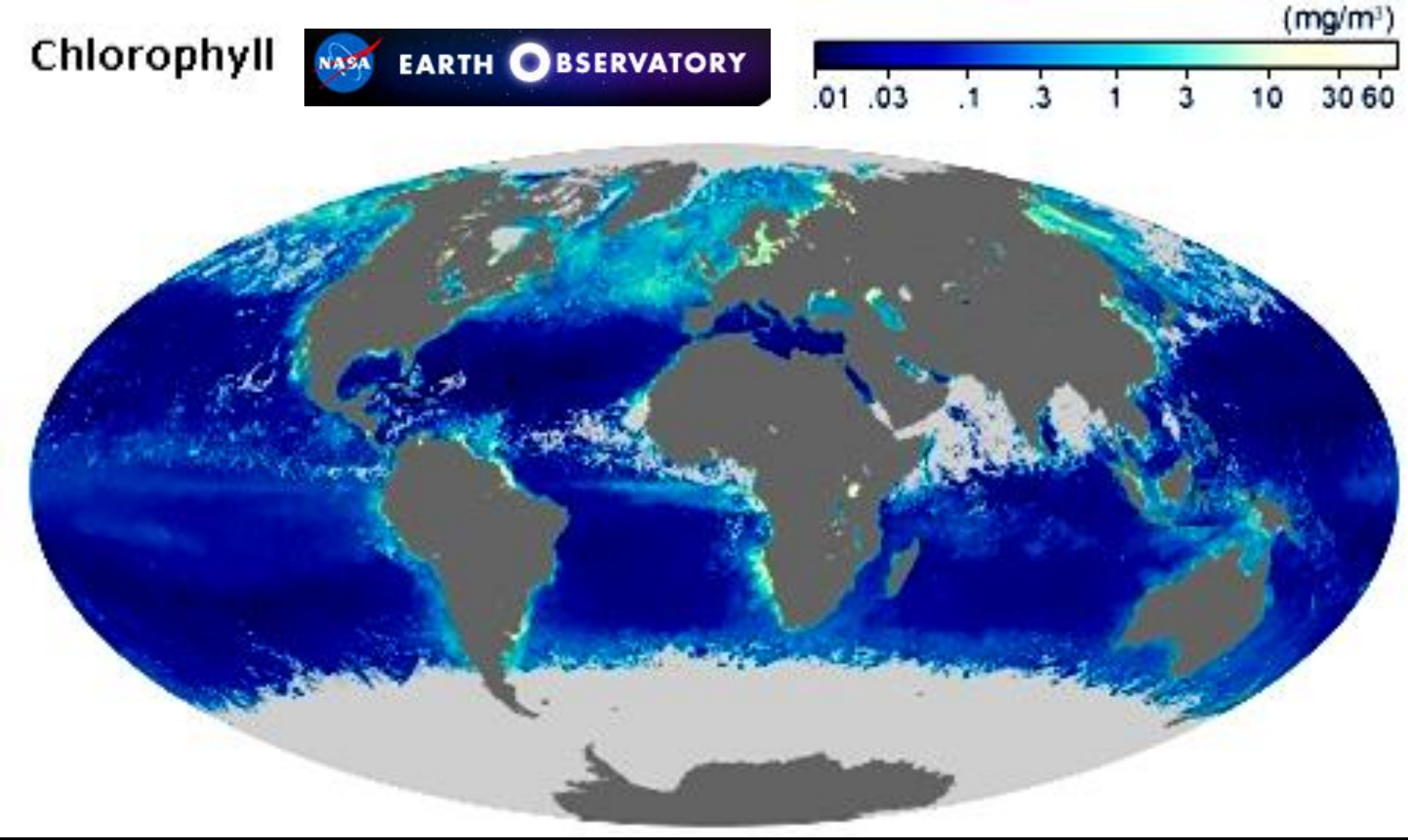
Asal Indonesia: 2

# FAKTA DUNIA

- 75% Muka Bumi adalah Laut.
- Laut Mesin Pertumbuhan Ekonomi Dunia dan Sumber Ketahanan Pangan.
- Asset Ekonomi Global di Laut: US$ 3-5 Trilyun.
- 90% Global Trade melalui Transportasi Laut.
- 30% Global Oil & Gas dari Lepas Pantai.
- 3.1 Milyar Penduduk Bumi tinggal 100 Km. dari Laut.
- 150 Negara memiliki Pantai dan Pulau.

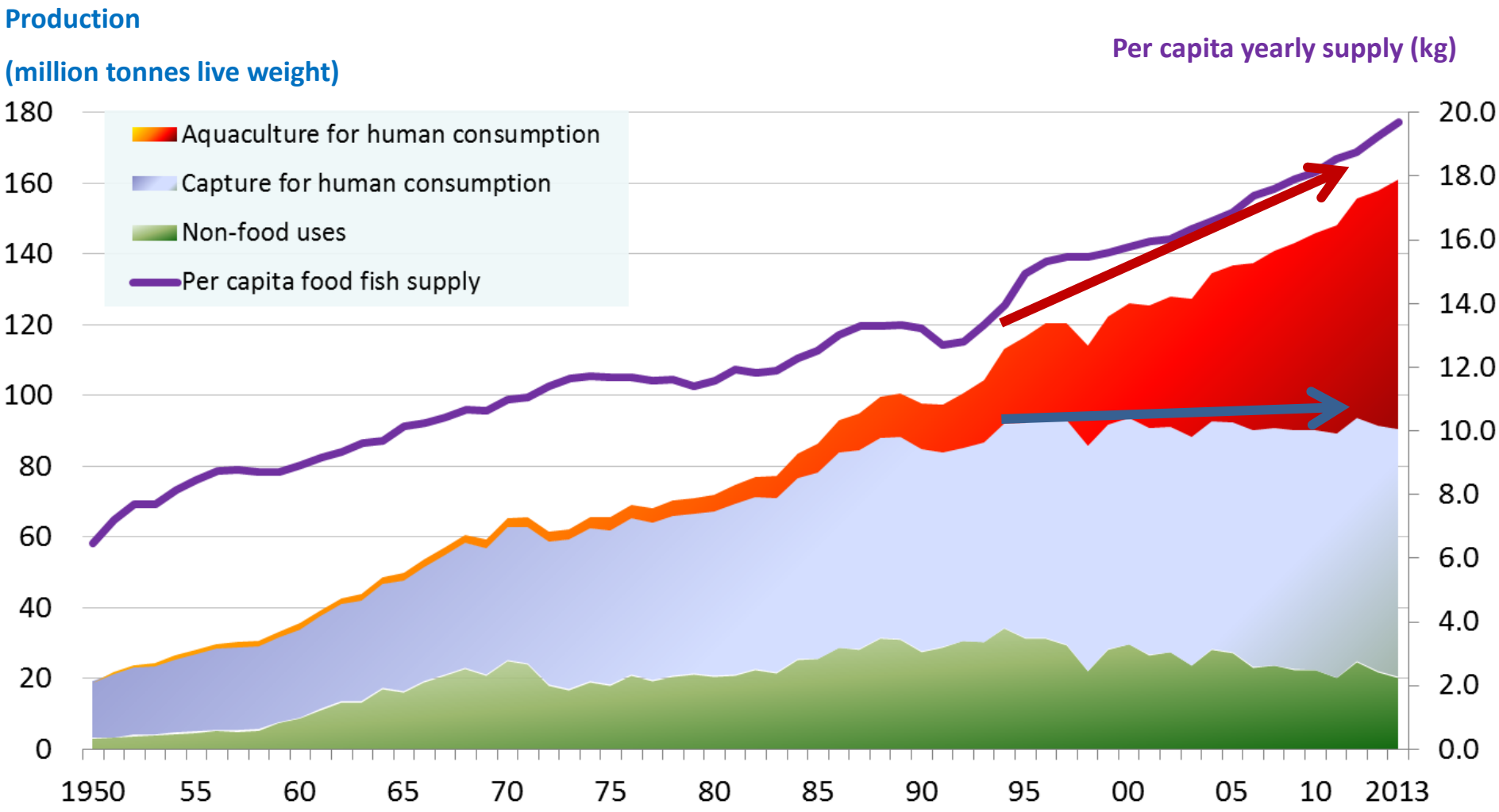
# BADAN BADAN DUNIA YANG MENANGANI KELAUTAN

- Food & Agriculture Organization (FAO): Perikanan,
- International Maritime Organization (IMO): Transportasi Laut & Polusi Laut
- IOC-UNESCO: Iptek Kelautan,
- United Nations Environmental Program (UNEP): Lingkungan Laut & Keanekaragaman Hayati Laut,
- International Labor Organization (ILO): Nelayan,
- International Hydrographic Organization (IHO): Data hidro-oseanografi.
- World Meteorological Organization (WMO): Marine Meteorology,
- Global Environmental Facility (GEF): Pendanaan Konservasi Laut.

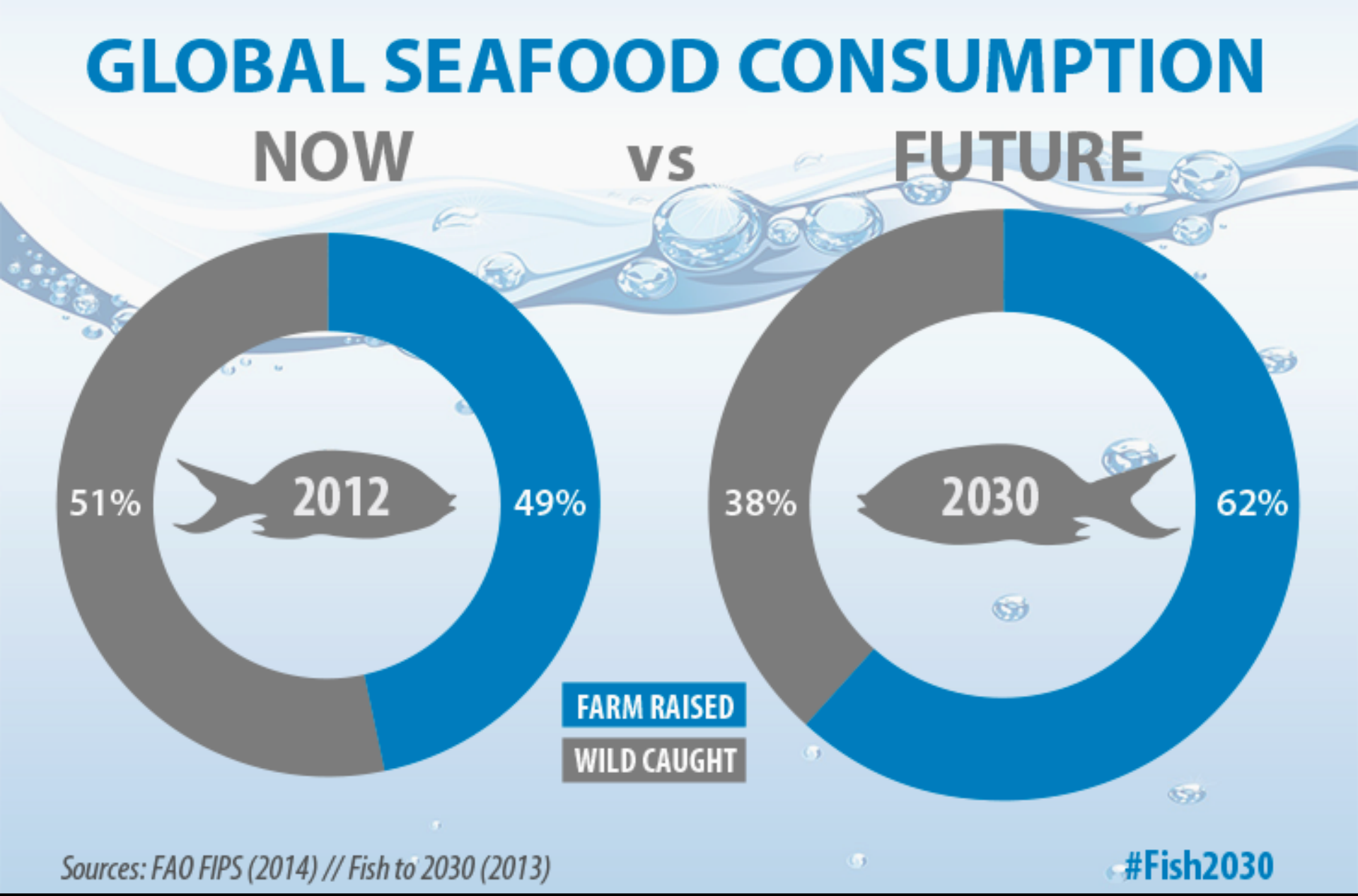



**Ocean Chlorophyll Concentration as monitored by MODIS Satellite. Yellow color shows high chlorophyll concentration, high ocean productivity, healthy ocean. Indonesian seas, California, Eastern Coast of South America, Southwestern Coast of Africa.**

# Opportunities:
# 1- Food Supply and Nutrition

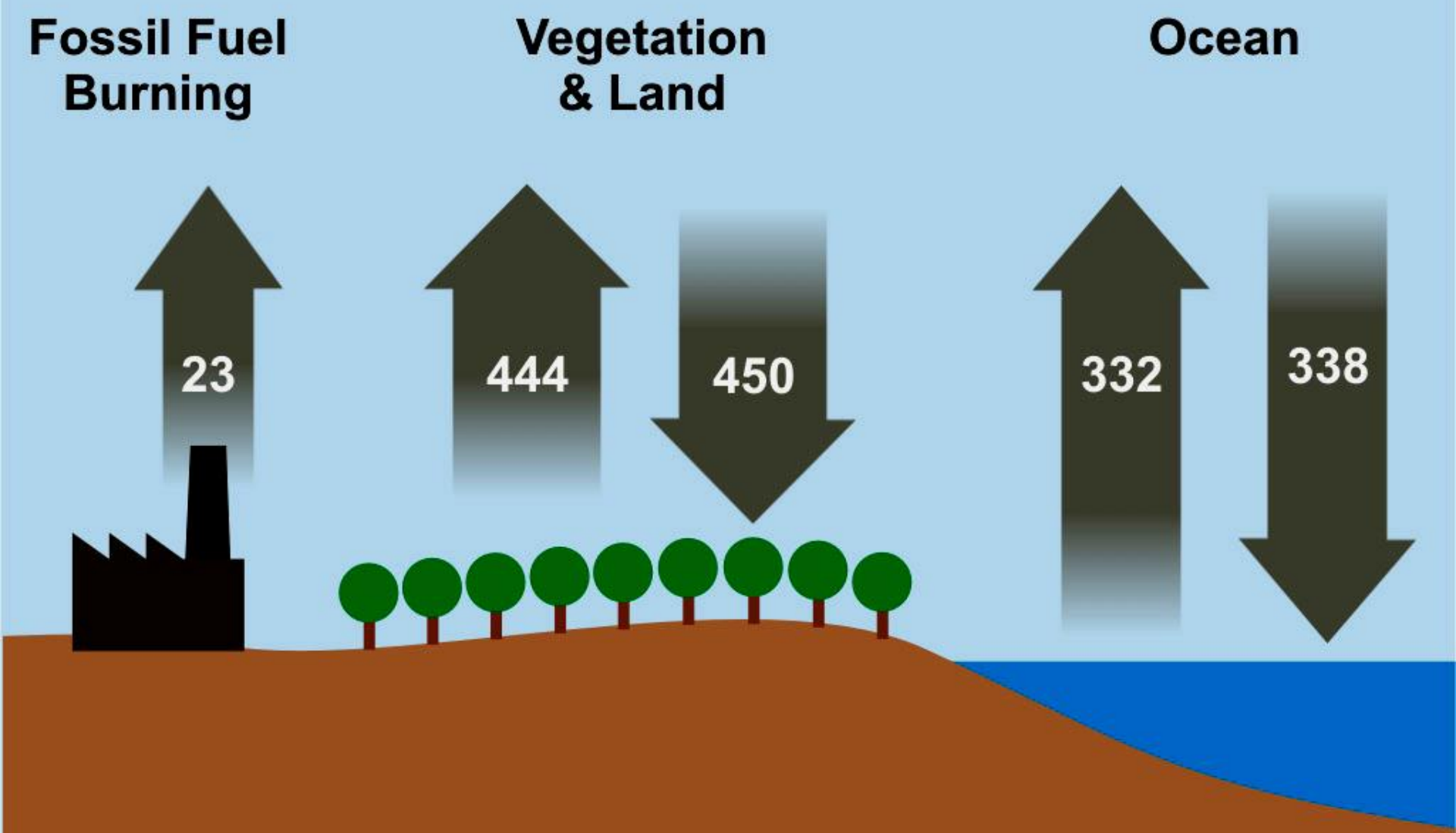



**Total Global Fish Production: 150 million tons / year**

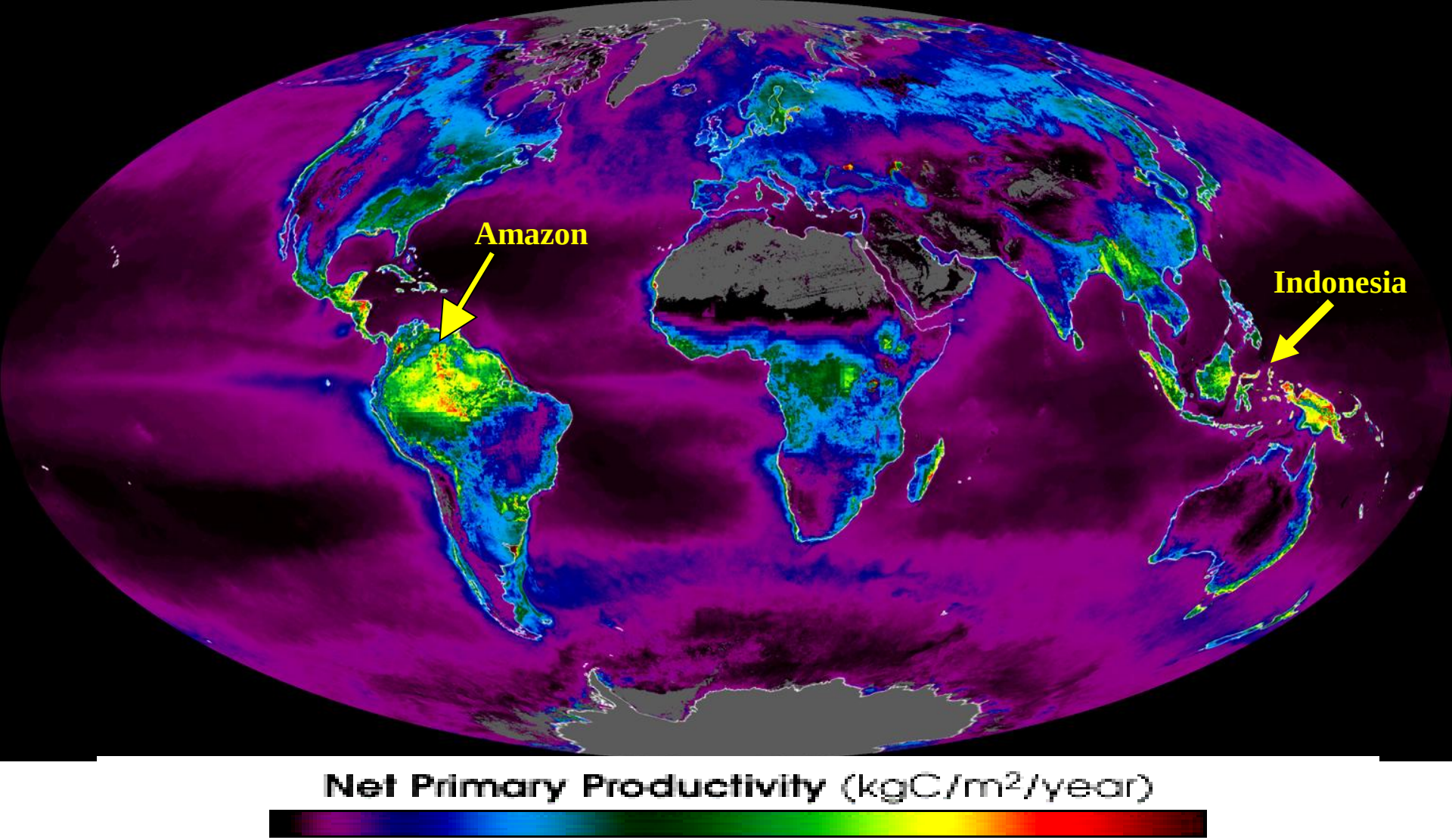



**By 2030, 2/3 of Global Fish Consumption will be coming from Aquaculture**

# The complete picture of the carbon cycle




*Carbon cycle for the 1990s. Numbers are in billion tonnes of CO2 (IPCC AR4).*




# PARU PARU DUNIA: Penyerap Karbon Terbesar di Dunia adalah Amazon & Indonesia (Sumber: NASA)

# TANTANGAN DUNIA

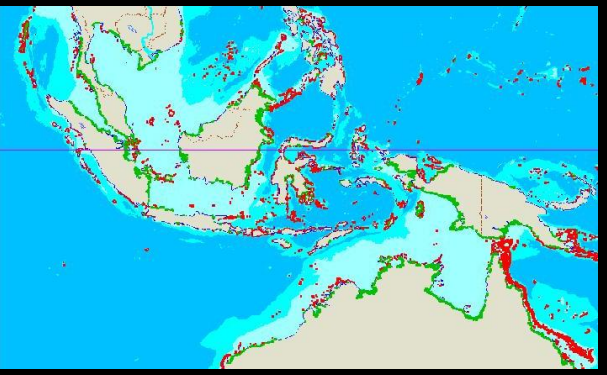
- Penangkapan Ikan Berlebih,
- Illegal Fishing (IUU Fishing)
- Kerusakan Ekosistem Laut
- Climate Change,
- Hapus Kemiskinan di Pesisir

# GLOBAL ILLEGAL FISHING

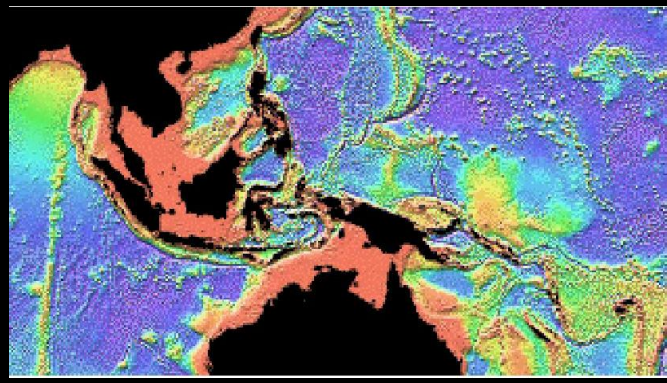
- 26 Juta Ton Per-Tahun,
- US $ 23 Milyar Kerugian/Tahun

(The Pew Charitable Trust)

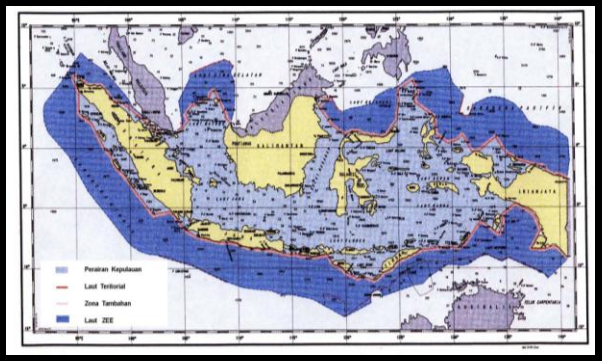
# LIMA KEUNGGULAN KOMPARATIF PEMBANGUNAN KELAUTAN DAN PERIKANAN DI INDONESIA



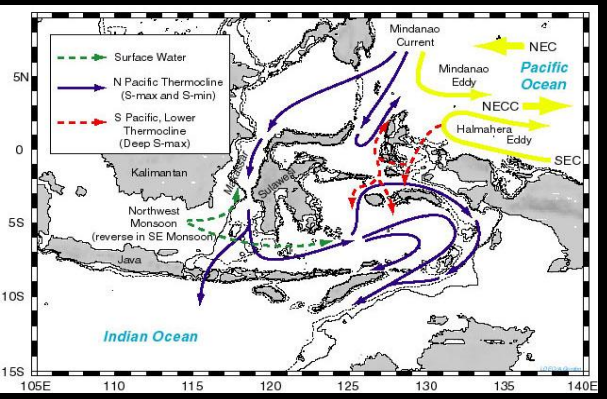
Marine Biodiversity



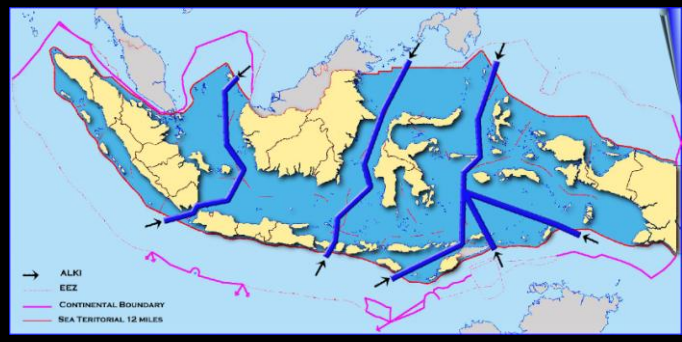
Posisi Geotektonik



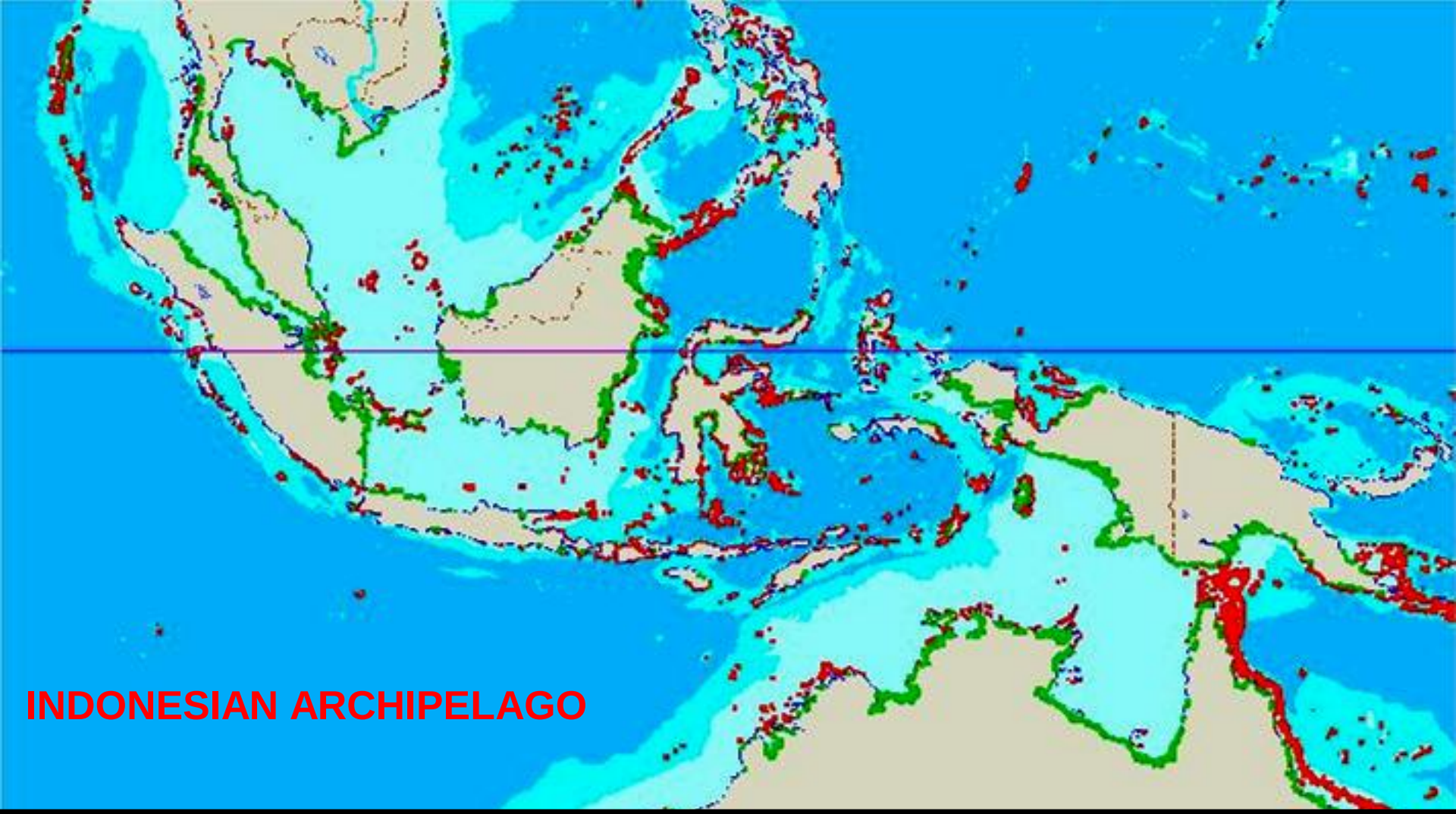
Wawasan Nusantara dan Kewilayahan




Dinamika Arus Lintas Kepulauan RI (Dynamic Oceanography and Climate Variability)

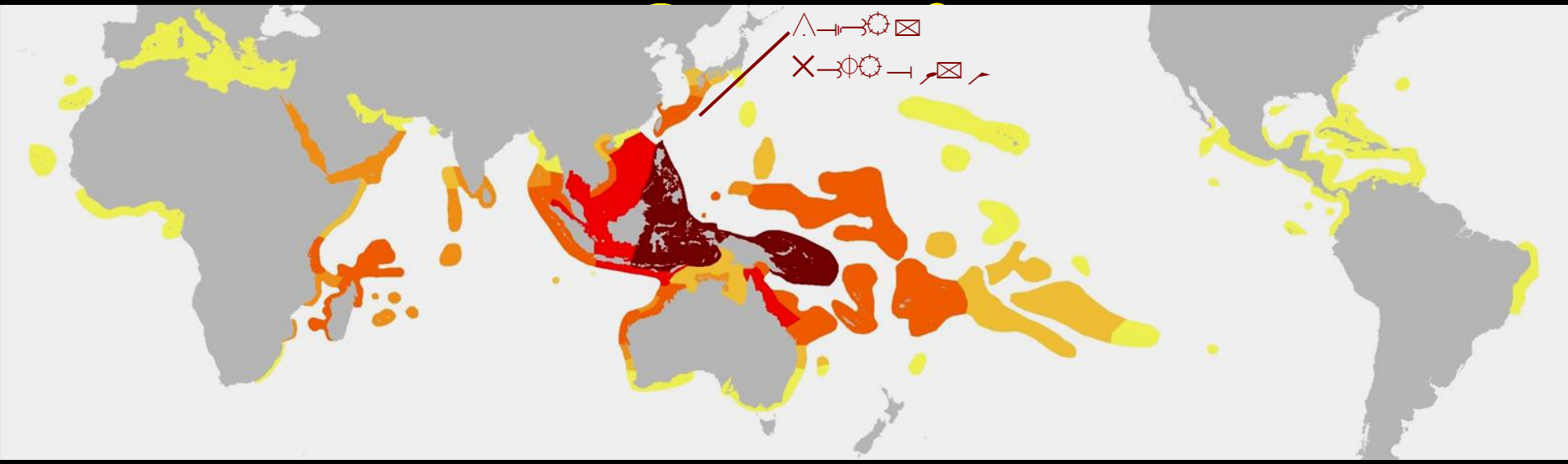


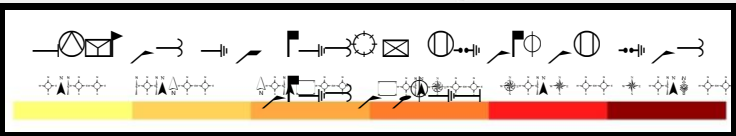

International Sea Lanes



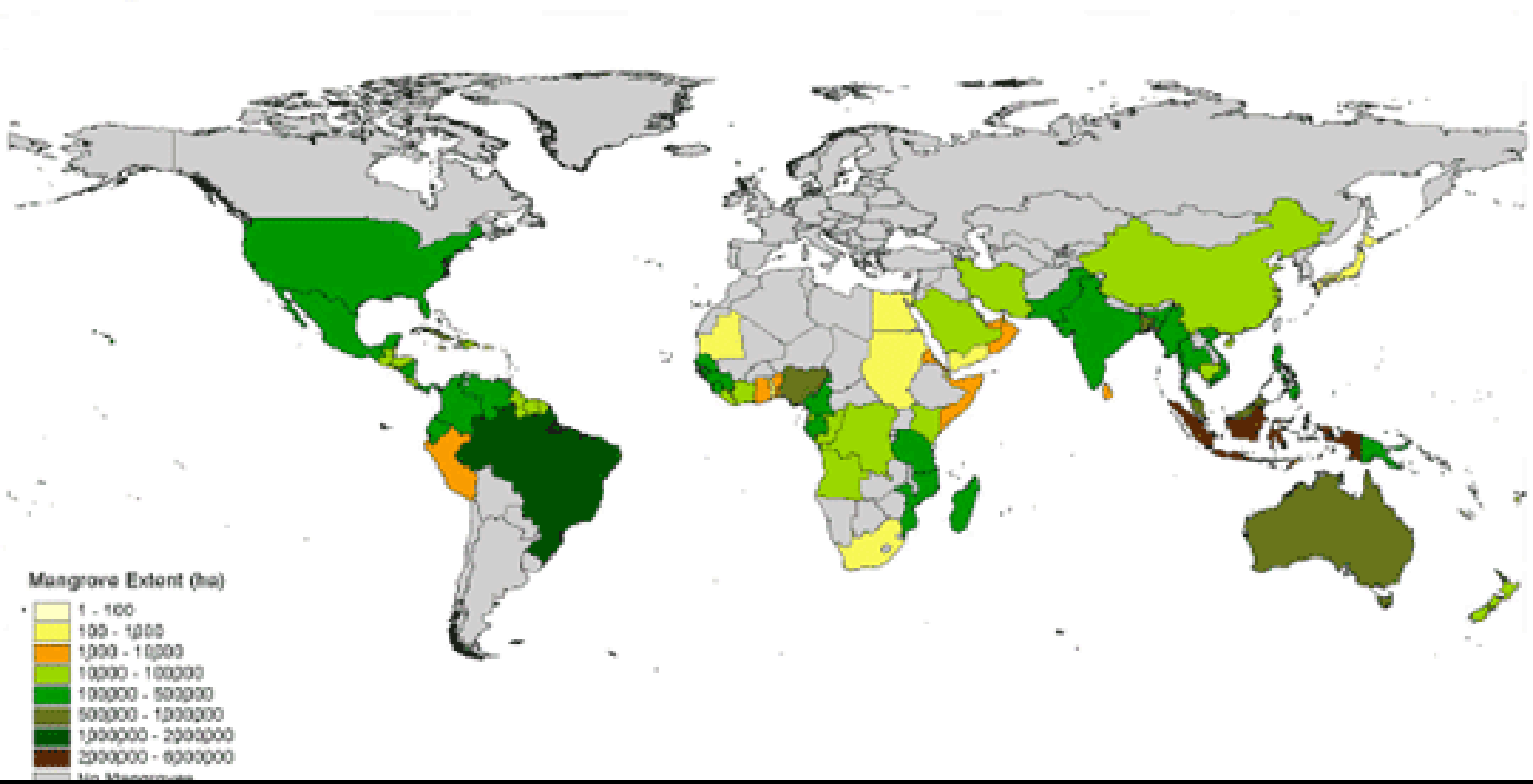

**Located between Asia & Australia Continents, total 13.400 islands, at the Equator, 5100 Km. across, 3300 Km. from North to South. 2nd Largest Land Biodiversity. Largest Marine Mega Biodiversity: 8000 fish species, 900 coral reef species.**

# CORAL TRIANGLE INITATIVE



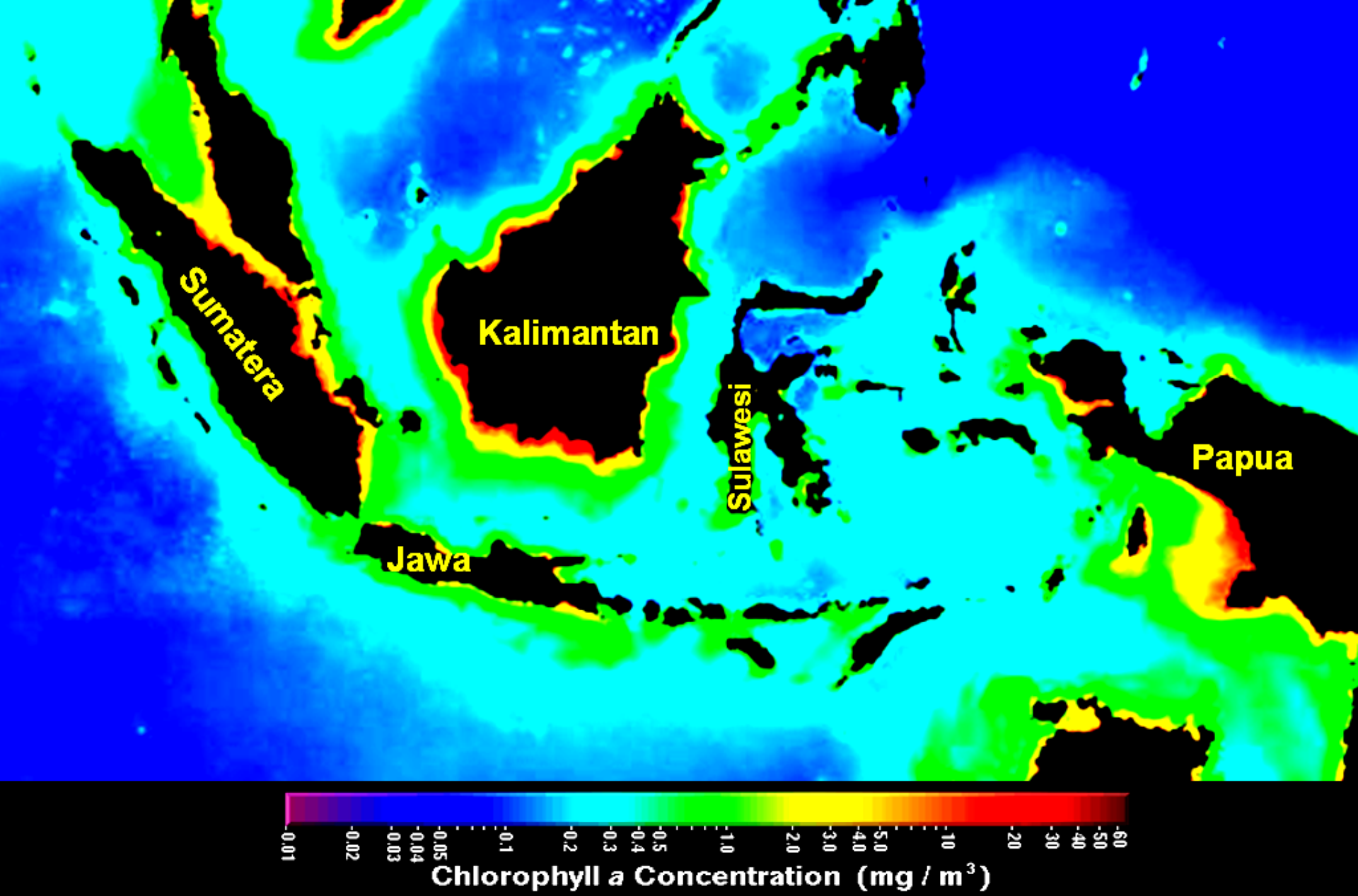


**Coral Triangle is the most diverse reef species Area in the World, 75.000 Sq.Km. US$2.3 Billions Economy/Year.**

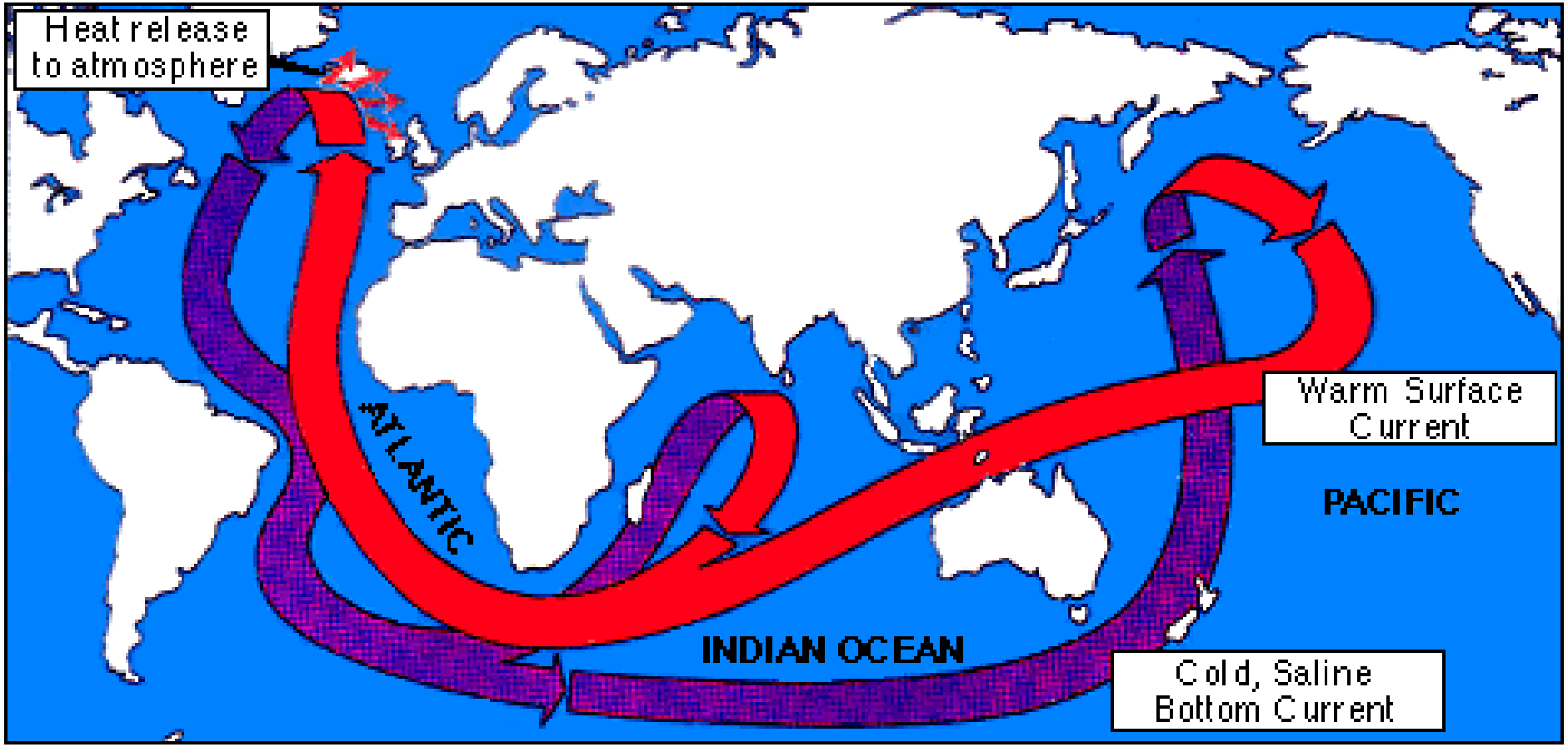



# Peta Mangrove Dunia, Luas Mangrove Indonesia, 3.4 Juta Hektar, terluas di Dunia

# Luas Seagrasses/Padang Lamun Indonesia: 300.000 Kilometer-Persegi, Terluas di Dunia.



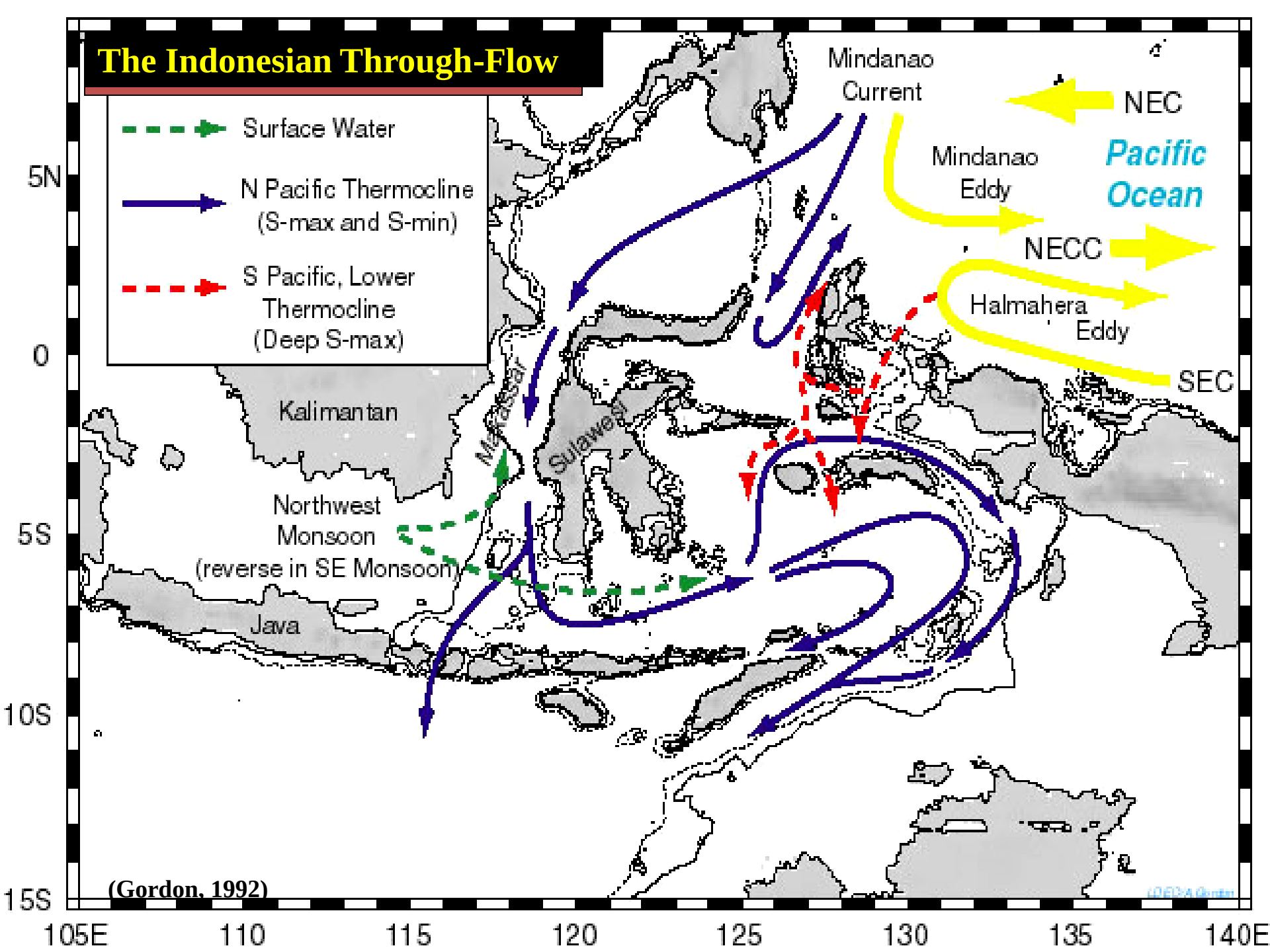

**Sebaran Khlorofil Wilayah Perairan Indonesia Kurun 1997 – 2003, Hasil Pantauan Satelit NASA-Seawifs**

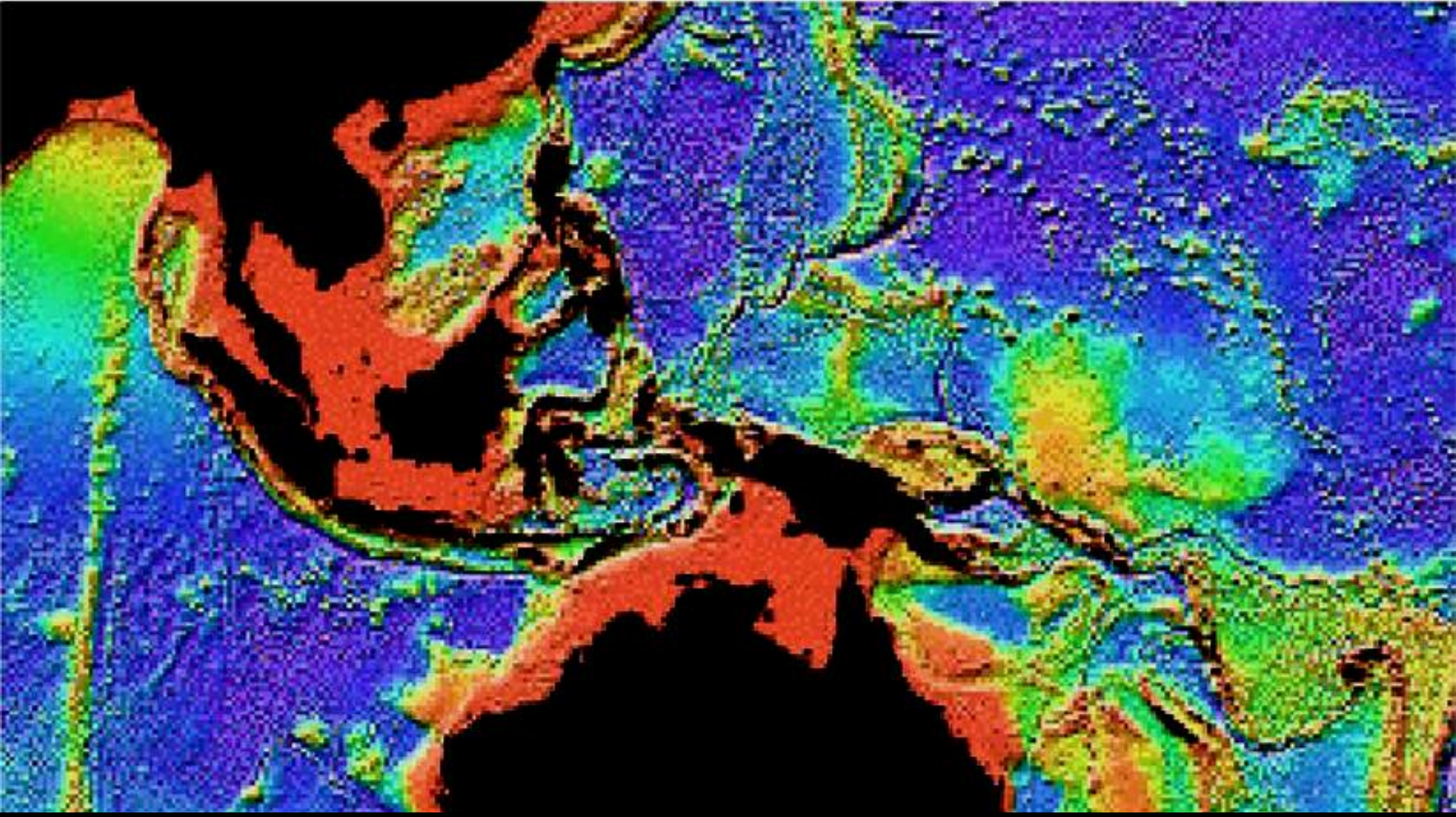



**The huge "Conveyor Belt" produces a large-scale ocean current system, which gave impact to the climate change**

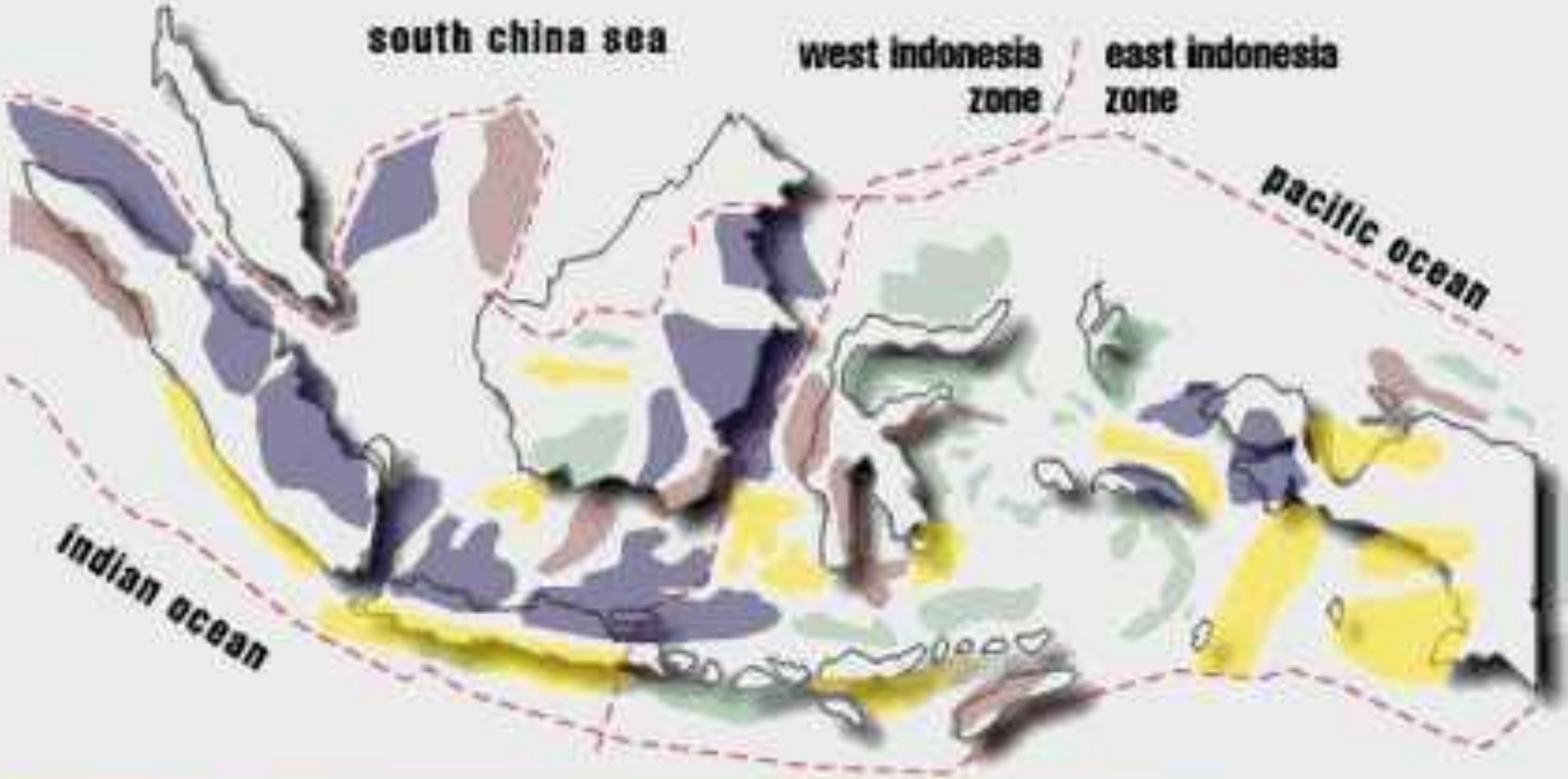
(Broecker)

# ONE CYCLE: 176 YEARS


The Indonesian Through-Flow
Surface Water
N Pacific Thermocline
(S-max and S-min)
S Pacific, Lower
Thermocline
(Deep S-max)
Mindanao
Current
NEC
Pacific
Ocean
Mindanao
Eddy
NECC
Halmahera
Eddy
SEC
Kalimantan
Makassar
Sulawesi
Northwest
Monsoon
(reverse in SE Monsoon)
Java
5N
0
5S
10S
15S
105E
110
115
120
125
130
135
140E
(Gordon, 1992)



# THREE PLATE-TECTONIC COLLISIONS




- undrilled wells 22
- drilled wells with no findings 14
- drilled wells with findings 10
- oil and gas reserves in production 14

60

# PELUANG & TANTANGAN

- Kendalikan Perikanan Tangkap,
- Kembangkan Perikanan Budidaya,
- Perkuat Sistem Rantai Pangan – Pengolahan & Zero Waste
- Kembangkan Ecosystem-Services

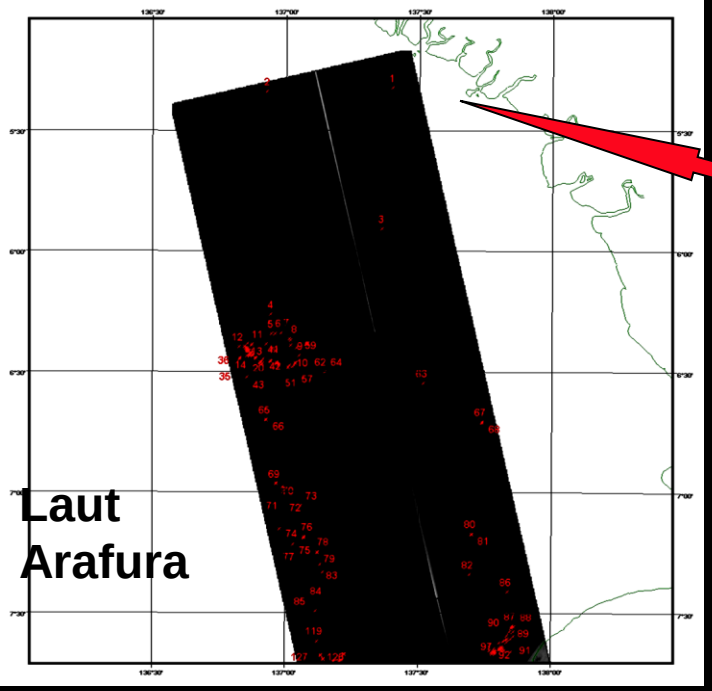
# MONITORING CONTROL & SURVEILLANCE CENTER (2003)

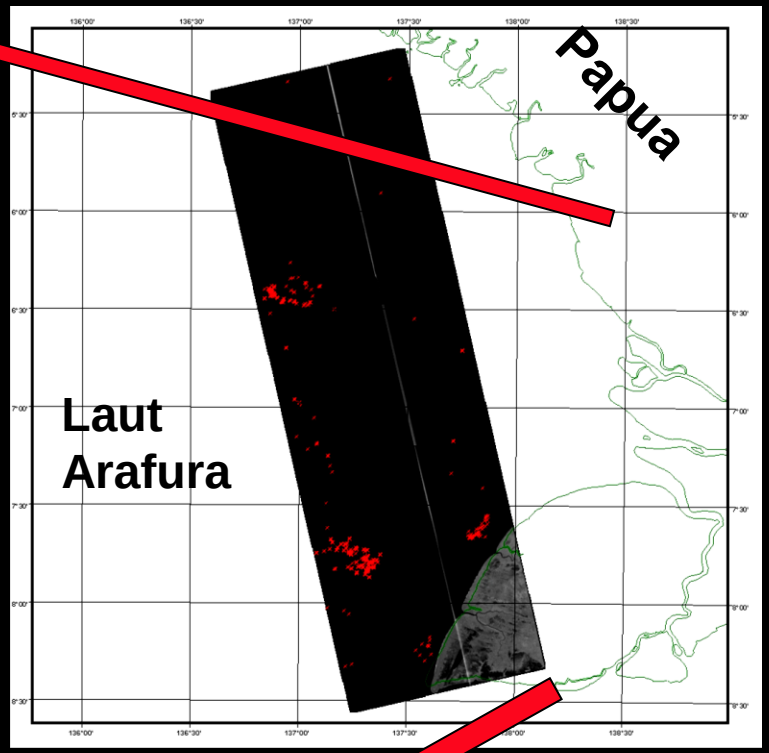
4 workstation untuk memonitor pergerakan kapal

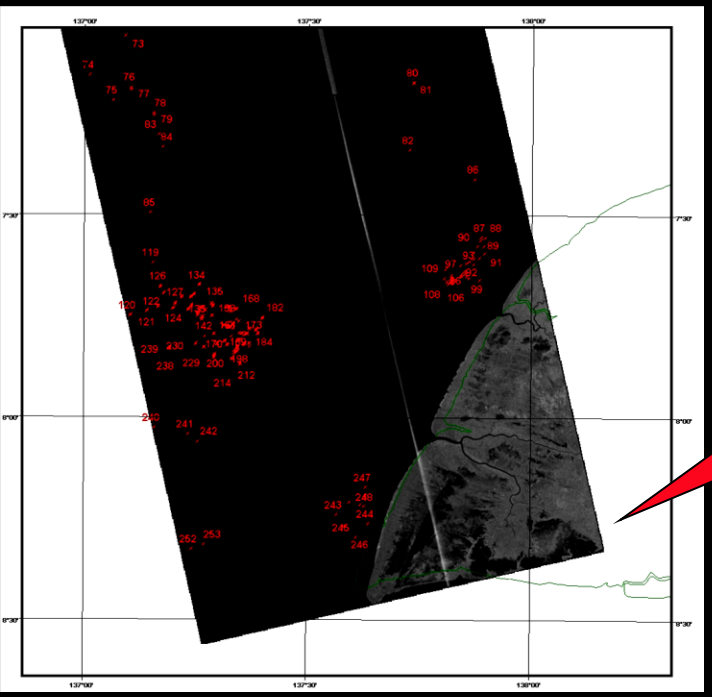
alat komunikasi radio SSB

server

kegiatan pengamatan dan analisa



**Pantauan Satelit RADARSAT Wilayah Papua Tenggara dan Laut Arafura, 4 Oktober 2003, terpantau 253 Kapal.**

TIM DKP & TNI AU, NOV 2003

**Pesawat BOEING-737 TNI-AU dari Skadron-5 Intai yang bermarkas di Makassar, dilengkapi Side Looking Airborne Multimission Radar, dan Forward Looking Infrared Camera, serta Aerial Photo Camera, segera digerakkan**

BOEING
MISSION COMMANDER

**Pesawat BOEING-737 Intai Strategis TNI-AU, Pantau Kapal Pair Trawl di Laut Arafura, yang merupakan kegiatan ilegal. Penentuan lokasi posisi kapal pair trawl dipandu lewat data Satelit RADARSAT**

**Dua Kapal Trawl “Menyapu Laut”, di Laut Arafura**

# BUDIDAYA RUMPUT LAUT

**Farming**

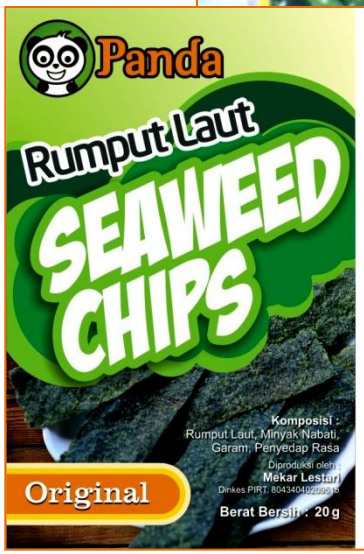
**Trade**

**Processing**

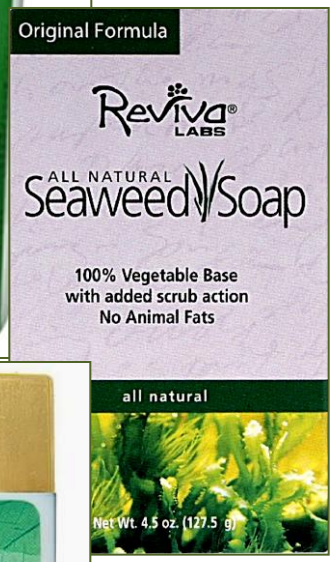
# Many food products!!

- Candies and sweets
- Sushi and sashimi
- Snacks
- etc. etc.

**…… 100s of products!!!!**



# Many cosmetic, medical products & more!!



- Shampoo
- Soap
- Cleansing cream
- etc., etc.

- Fertilizers
- Animal feed
- etc., etc.

**…… 100s of products!!!!**

# KELAUTAN DUNIA & INDONESIA KEDEPAN ?

**Presiden Soeharto pada Rio Summit, AGENDA 21, 14 Juni 1992**

**Presiden Megawati Soekarnoputri dan Sekjen PBB Kofi Annan pada Rio+10 Summit di Johannesburg, Afrika Selatan dan Pencanangan MILLENIUM DEVELOPMENT GOALS (MDGs), September 2002**

**Presiden SBY pada Rio+20 Conference, 20 Juni 2012**

# SUSTAINABLE DEVELOPMENT GOALS (SDGs) POST 2015 AGENDA

- Draft Agenda: 2015 – 2030,
- 19 Draft SDG Goals,
- Draft SDG Goal No.14: Marine & Ocean Resources
- Akan diadopsi pada Sidang Umum PBB, di New York, September 2015.
- Presiden RI Joko Widodo akan mewakili Indonesia pada Penetapan SDG Post 2015.

# Proposed SDG Goal 14: Conserve & Sustainably Use the Oceans, Seas & Marine Resources For Sustainable Development

- Pd 2025, Kurangi Polusi laut secara Signifikan.
- Pada 2020, Pengelolaan Ekosistem laut & Pesisir untuk mencapai laut yang sehat dan produktif.
- Kerjasama Iptek untuk mengurangi Pengasaman Laut.
- Pada 2020 mampu menangani Illegal Fishing (IUU Fishing) serta penggunaan Science-based Management agar sumberdaya ikan lestari.
- Pada 2020 berhasil dikonservasi 10% wilayah pesisir dan laut.
- Pada 2020 mengurangi berbagai bentuk Subisidi di bidang perikanan.
- Pada 2030, Benefit ekonomi di bidang perikanan, akakultur dan wisata bahari untuk Negara Berkembang.
- Peningkatan Iptek & Riset di Bidang Kelautan,
- Pemberikan akses sumberdaya kelautan dan pasar bagi nelayan skala kecil .
- Penerapan UNLCOS secara penuh.

**Pada Sidang Majelis Umum PBB, September 2015, SDGs POST-2015 akan diadopsi oleh Para Pemimpin Dunia, termasuk Presiden RI, Joko Widodo.**

# Terima Kasih