



COORDINATING MINISTRY OF MARITIME AFFAIRS

**Role of Coordinating Ministry of Maritime Affairs
in Sustainable Management of Indonesian Mangrove
and Its Ecosystem**

AGUNG KUSWANDONO

Deputy for Coordination on Natural Resources and Services

**INTERNATIONAL CONFERENCE ON MANGROVE ECOSYSTEMS,
BALI, 18 APRIL 2017**



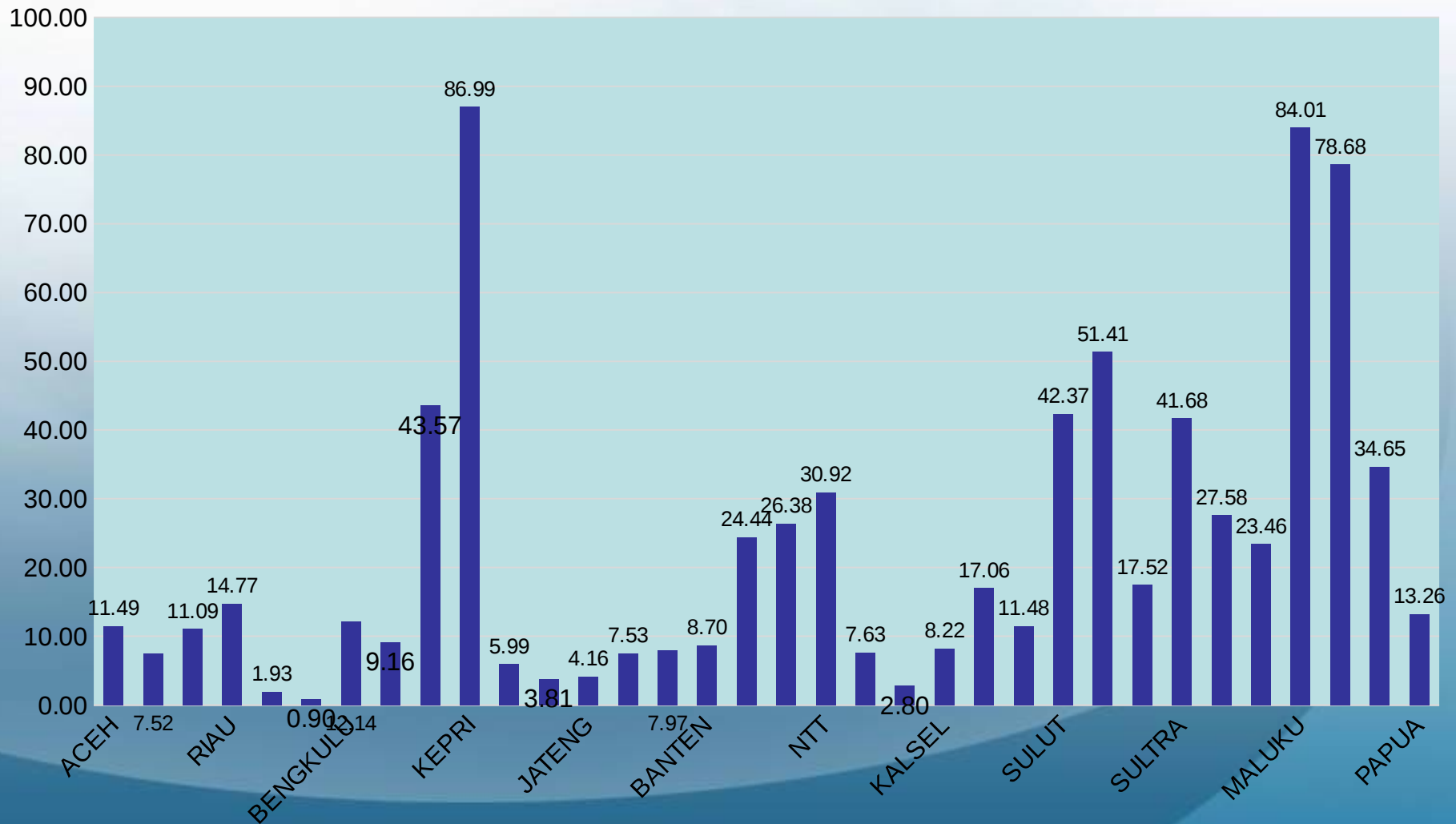
INDONESIA AS AN ARCHIPELAGIC STATE



Indonesia as an archipelagic country having 17.504 islands (including 10.000 small islands) with 99.093 km coastline and coastal inhabitants of more than 140 millions people (out of 250 millions population), in 297 districts/cities (out of 440 Indonesian districts/cities) the Indonesian economy relies on our marine resources and coastal activities.



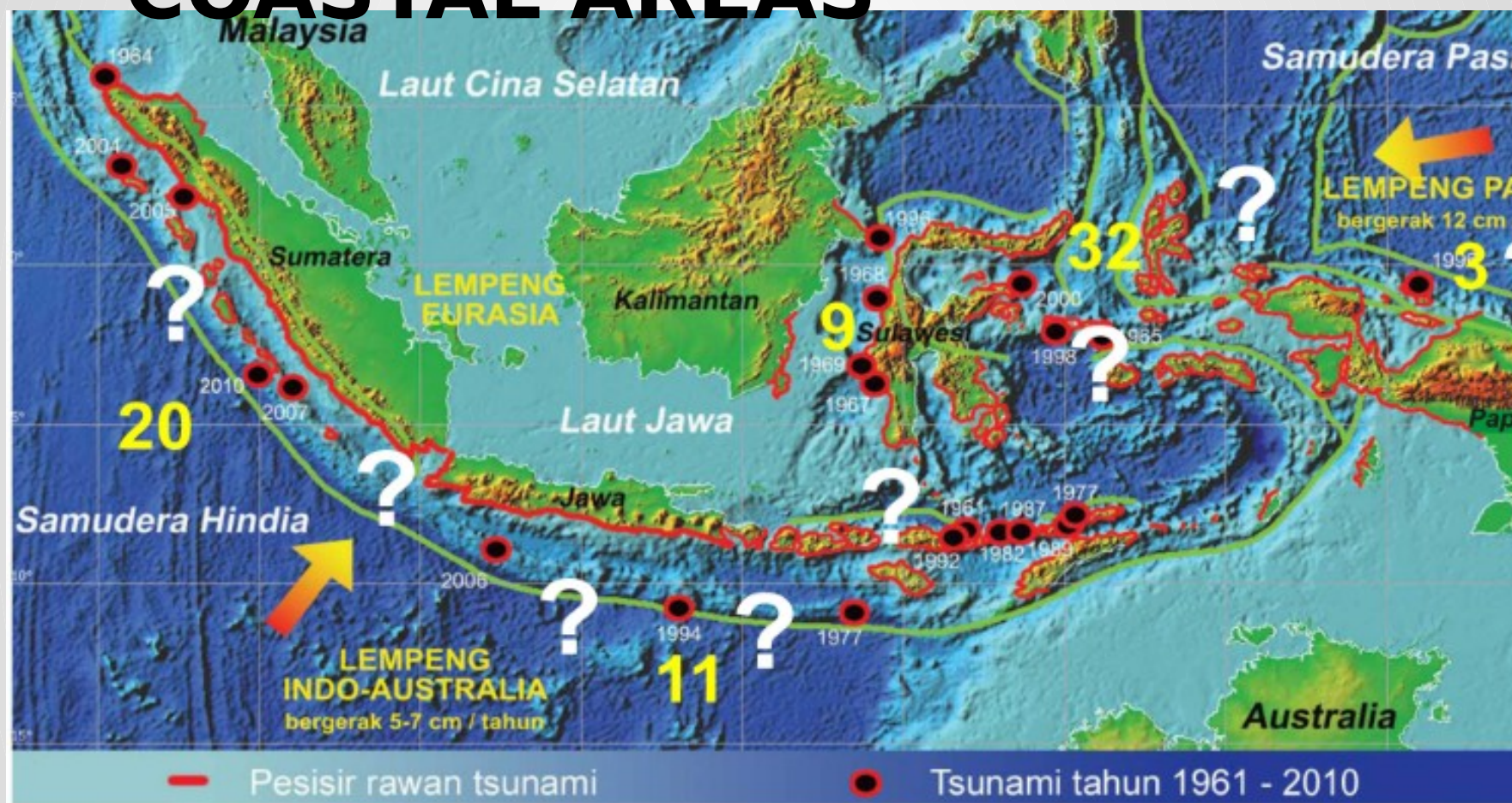
Percentage of Coastal Villages (Provinces)



Vulnerable to marine disaster: tsunami, climate change impact (sea level rise)



TSUNAMI THREATS THE COASTAL AREAS



A. Since year 1600 - now: more than 110 tsunami in Indonesia

B. More than 7,800 villages are vulnerable from tsunami disaster. More than 15 million people



IMPACT ON SEA LEVEL RISE IN THE COASTAL AREAS OF INDONESIA



About 2,266 villages facing and severe from climate change impact (sea level rise). More than 9 million people live there.



BARRIER



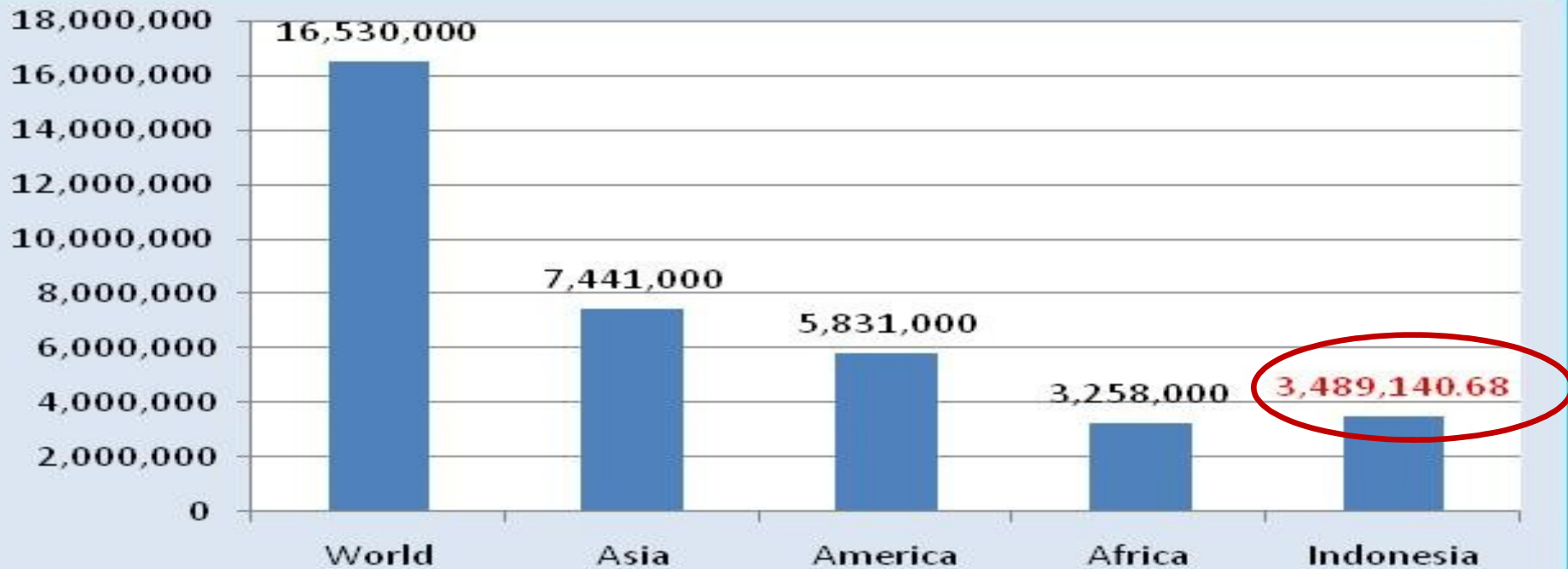
MANGROVES PROVIDE:

- A. Climate change adaptation and mitigation for national and global strategy;
- B. Coastal barrier in severe storms, tsunami disaster, waste and pollutant recycling;
- C. A wide range of ecosystem services (nutrient cycling, soil formation, wood production, fish spawning grounds, ecotourism, and carbon storage).



INDONESIAN MANGROVE

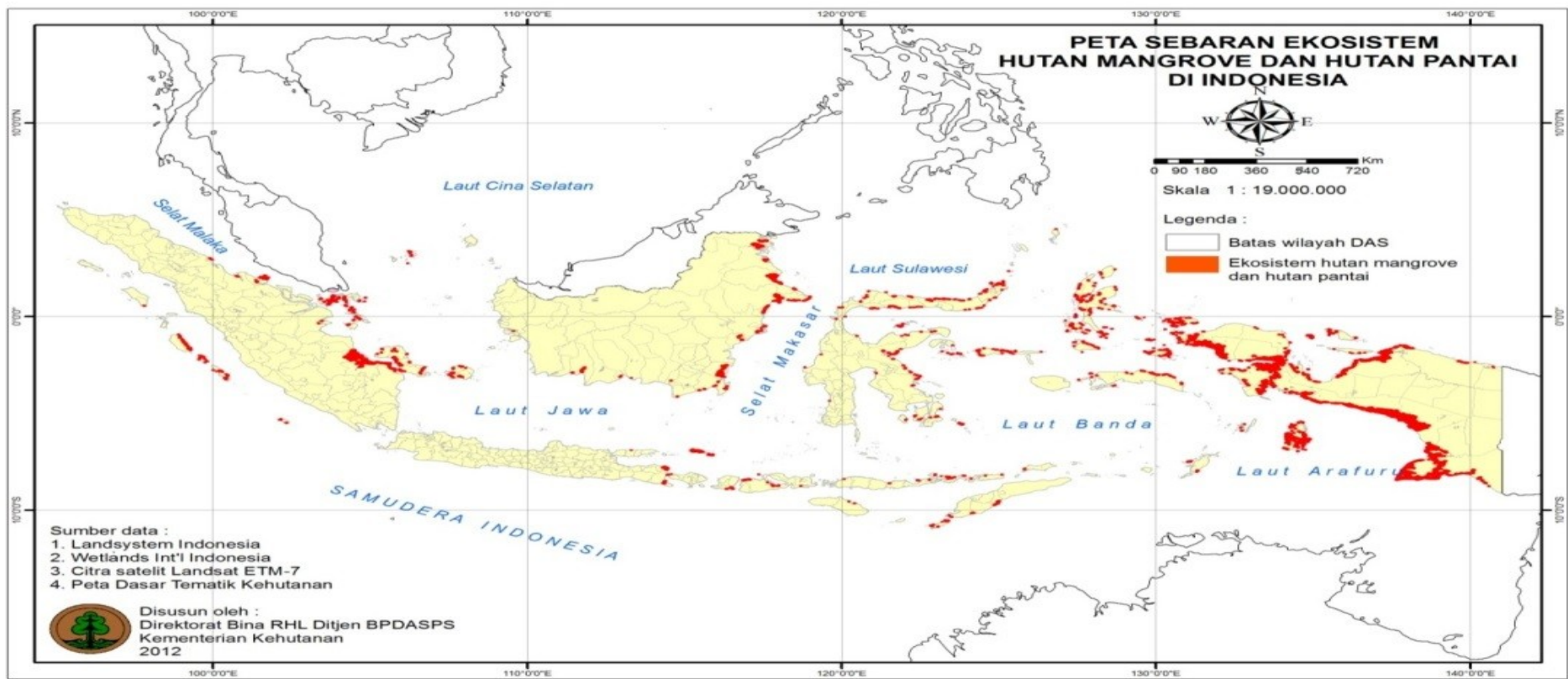
- The largest mangrove ecosystem in the world (MoEF, 2017). It represents 23% of the total mangrove in the world (CIFOR, 2017).
- Facing many problems : changes in land use, low level of society knowledge on the importance of mangrove, pollution (plastic waste, household waste, oil spill, etc.), illegal logging, natural disaster.
- Sustainable management of Indonesian mangrove ecosystems : (1) sustainable utilization, (2) conservation, (3) rehabilitation.



World Mangrove (ha)



MAP AND STATUS OF INDONESIAN MANGROVE



Indonesian Mangrove of 3.489.140,68 ha (Year 2015)

National Status:
Good condition: 1,671,140.75 ha.

Damaged (52%) : 1,817,999.93 ha.
Rate of destruction: ±52,000ha/yr (Cifor 2015)

Java North Beach (Pantura) Status:
Good condition: 15%.

Damaged : 85%
(9,000ha.)
Source : MoEF, 2017



GOVERNMENT PROGRAM: REHABILITATION OF MANGROVE



- Part of Priority Program (Level 1) at the Indonesian Coordinating Ministry of Maritime Affairs named **Rehabilitation of the Damage on Coastal and Sea**, which is also monitored by the Indonesian Presidential Staff Office.
- Other activities under **the Rehabilitation of the Damage on Coastal and Sea** Program :
 - (1) Structure Hybrid Engineering (or, Sediment Trap) and
 - (2) Geo-textile.



REHABILITATION OF THE DAMAGE ON COASTAL AND SEA IN THE INDONESIAN GOVERNMENT WORK PLAN 2017



GOVERNMENT INSTITUTIONS INVOLVED :

- 1) Geospatial Information Body;
- 2) Min.of Ocean and Fisheries;
- 3) Min.of Env.and Forestry;
- 4) Nat.Outer Space and Flight Insitution;
- 5) Nat.Disaster Manag.Body;
- 6) Min.of Home Affairs;
- 7) Local Government;
- 8) Indonesia Institute of Science;
- 9) Min.of Comm.Housing and Public Work;
- 10) Agency for the Assessment and Application of Technology;
- 11) Etc.



PRIORITY ACTIVITIES (LEVEL 2) RELATES TO MANGROVE IN 2017

PRIORITY ACTIVITIES – PA (Level 2)

**PA :
Rehabilitation
of the Damage
on Coastal
and Sea**

GOAL :

1. 3 million mangrove stems to rehabilitate the coastal area of Java North Beach
2. Restoration of 10 coastal areas
3. Rehabilitation of mangrove forest as 1000 ha

Min.of Ocean and Fisheries, Min. of Env.and Forestry, Indonesia Institute of Science, Min. of Comm.Housing and Public Work.

**PA :
Conservation
of Coastal
and Sea**

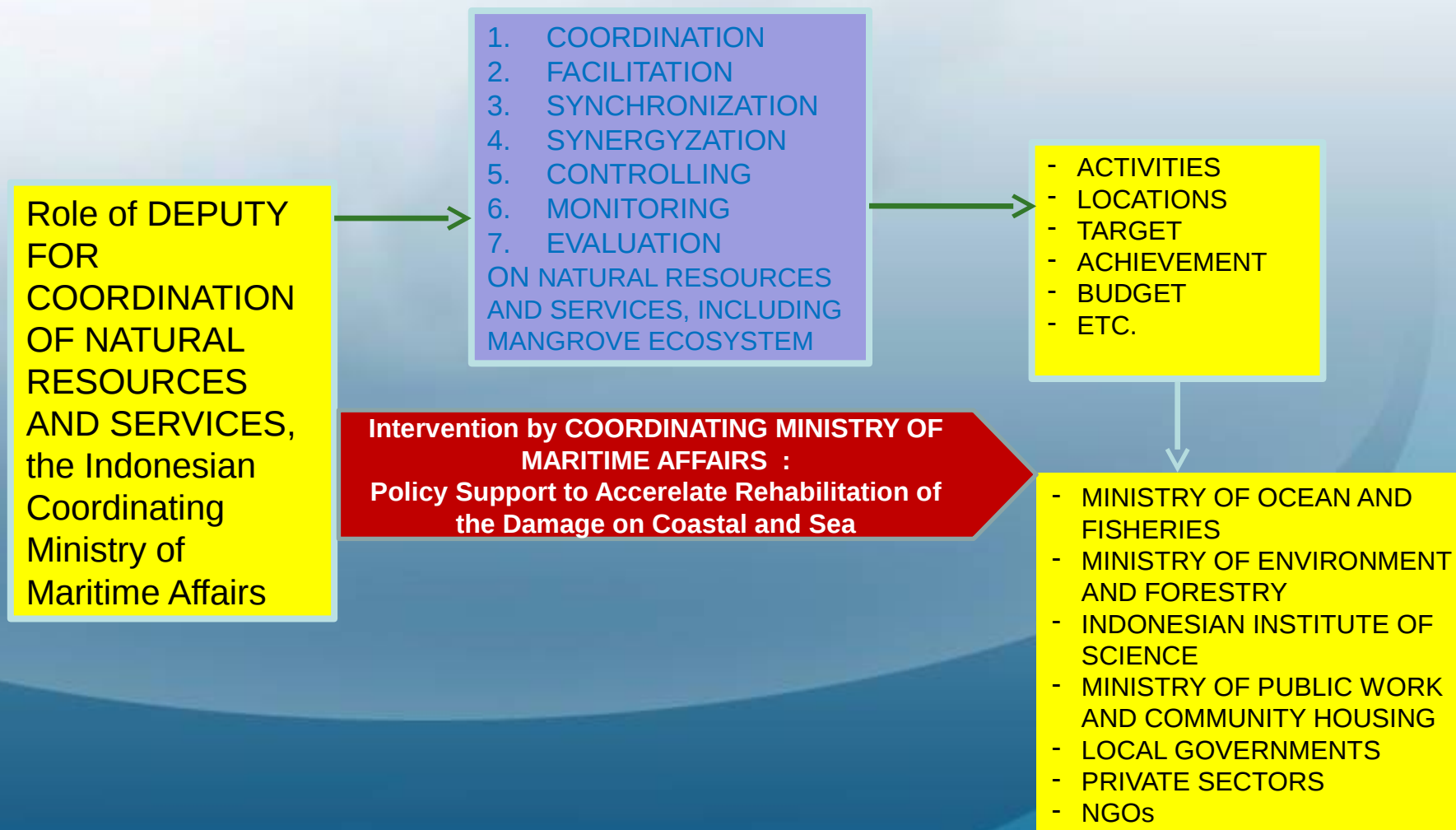
GOAL :

Management of 6 mangrove areas in 2 Ecoregion in Java and Sumatra as Essential Ecosystem Areas

Min.of Ocean and Fisheries, Min. of Env.and Forestry, Indonesia Institute of Science, Local Governments.



REHABILITATION OF THE DAMAGE ON COASTAL AND SEA





ACHIEVEMENT OF REHABILITATION PROGRAM ON COASTAL AREA

1. COORDINATING MINISTRY OF MARITIME AFFAIRS

- Coordination and synergizing meetings :
 - To map activities done by related stakeholders deals with rehabilitation of mangrove from national government institutions, non government institutions, and private sectors, such as :
 - (1) Ministry of Ocean and Fisheries,
 - (2) Ministry of Environment and Forestry,
 - (3) PT. Toyota Motor Manufacturing Indonesia,
 - (4) Wetland Int'l. Indonesia,
 - (5) PT. Candelia Alam (West Kalimantan Province)
 - (6) Coordinating Ministry Of Economic Affairs
 - To link its activities to management of maritime disaster.



2. MINISTRY OF OCEAN AND FISHERY

TARGET

**3 million mangrove
In Java North Beach
(quick wins)**

**1 million mangrove
Outside of Java**

500 million vegetation



ACHIEVEMENT 2015

- 4,2 million mangrove in Java North Beach
- 1,7 million mangrove outside of Java
- 48 thousand vegetation



ACHIEVEMENT 2016

- 496 thousand mangrove in Java North Beach
- 1,1 million mangrove outside of Java
- 33,8 thousand vegetation

2002 - 2016

Mangrove 14.890.252 stems

Beach Vegetation 398.892 stems

2016

(Ministry of Ocean dan Fishery)

104.900 stems

11.185 stems

300.000 stems

960 stems

25.000 batang

300.000 stems

348.790 stems

176.500 stems

250.000 stems

210.000 stems

200.000 stems

70.000 batang

 230.000 batans

75.000 stems

7.500 stems

2.800 stems

195.000 batang

72.857 stems

28.663 stems

Cirebon

660.000 stems

420,000 stems

200.000 batang

6.069.054 stems

1,591,930 stems

327.000 stems

44.000 stems

307,500 stems

 **646,088 stems**

410,004 stems

47.680 stems

410.000 stems

 **310 800 stems**

 462 615 stems



3. MINISTRY OF ENVIRONMENT AND FORESTRY

2015	MANAGEMENT UNIT WATERSHEDS IN 14 PROVINCES OF :		
	- Lampung,		
	- West Java,		
	- Central Java,		
	- East Kalimantan,		
	- North Sulawesi,		
	- Bangka Belitung Island, Central		
	- Sulawesi, Mollucas,		
2016	- Papua,		
	- Southeast Sulawesi		
	TOTAL	PLAN (ha)	REALIZATION (ha)
		400	481
	MANAGEMENT UNIT OF WATERSHEDS IN 8 PROVINCES OF :		
	- Sumatra Utara,		
	- Bangka Belitung Island,		
	- Banten,		
	- Sulawesi Selatan,		
	- Sulawesi Barat,		
	- Maluku Utara,		
	- Lampung and		
	- Sulawesi Tenggara		
	Total	PLAN (ha)	
		497,47	



SOME REHABILITATION TECHNIQUES BASED ON COASTAL AND LAND CONDITION



**Sediment trap,
Serang-Banten**

**Bronjong Method,
Pekalongan - Jawa Tengah**





Silvofishery



Crab Aquaculture
Pemalang, Jateng



Silvofishery Delta
Mahakam, Kaltim



REHABILITATION MANGROVE

Indramayu



± 8 months

Bekasi

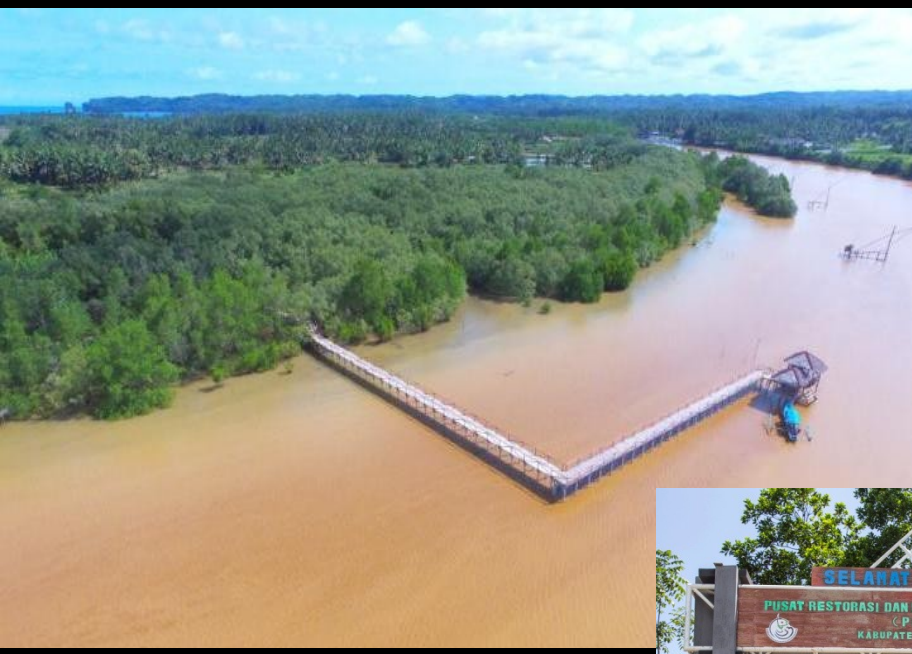


3 years





PRPM Pangandaran (Mangrove tourism)



Tracking



Daily income:

- Visitor : Rp. 1.000.000
- parking : Rp. 300.000
- toilet : Rp. 60.000



4. PT. TOYOTA MOTOR MANUFACTURING INDONESIA

- Mangrove Planting on March 1, 2017, in Pusakajaya Village, District of Karawang.
- Institutions involved : Coordinating Ministry of Maritime Affairs, Ministry of Environment and Forestry, Vice Governor of West Java Province, Regent of Karawang, and Environmental Impact Agency of West Java Province.





5. WETLANDS INTERNATIONAL INDONESIA PROGRAMME

- Celebrating World Wetlands Day, on February 16, 2017, in Sawah Luhur Village, City of Serang, Province of Banten.
- Institutions involved : Coordinating Ministry of Maritime Affairs, Ministry of Environment and Forestry, Local Governments of Serang City, NGOs, University.





6. PT. KANDELIA ALAM

- Field Trips to Kubu Village, Village, District of Kubu Raya, West Kalimantan Province, on March 23, 2017.
- To map activities done by PT. Kandelia Alam relates to sustainable utilization, rehabilitation and conservation of mangrove.





7. COORDINATING MINISTRY OF ECONOMIC AFFAIRS

- **Finalization of NATIONAL STRATEGY ON MANGROVE ECOSYSTEM MANAGEMENT (Presidential Decree No. 73 of 2012)**
- **Facilitated by Coordinating Ministry of Maritime Affairs in Serpong, Banten Province, 4 – 5 April 2017**





CHALLENGE IN MANAGING FUTURE MANGROVE REHABILITATION

- 1. Rate of destruction is faster than rate of rehabilitation.**
- 2. Limited budget for implementation.**
- 3. Need to have better management of mangrove ecosystems.**
- 4. Need to strengthen regulations.**
- 5. Need to have better link of cross sectors: in terms of coordination, facilitation, synergization, synchronization, controlling, monitoring and evaluation.**
- 6. Need to strengthen community participations.**



INTERVENTION BY COORDINATING MINISTRY OF MARITIME AFFAIRS

POLICY SUPPORT ON ACCELERATING REHABILITATION OF THE DAMAGE ON COASTAL AND SEA

- 1. Organizing a National Workshop on Rehabilitation of the Damage on Coastal and Sea, including Mangrove.**
- 2. Coordinating and facilitating the finalization of the National Strategy on Mangrove Ecosystem Management.**
- 3. Synchronizing the locations of rehabilitation of the damage on coastal and sea including mangrove, among various stakeholders (government institutions, private sectors, NGOs).**
- 4. Coordinating, Facilitating, Controlling, Monitoring, and Evaluating the implementation of rehabilitation of the damage on coastal and sea, including rehabilitation mangrove, among various stakeholders (government institutions, private sectors, NGOs).**



PROPOSED PLAN OF ACTION IN 2017

- 1) Revised the Presidential Decree of National Mangrove Working Group (NMWG)(according to new government nomenclature)**
- 2) Routine meeting of NMWG.**
- 3) Facilitation of establishment of Province Mangrove Working Group (PMWG) East Kalimantan dan North Kalimantan.**
- 4) Endorsing Development of Provincial Local Strategy/Action Plan.**
- 5) One Map Mangrove Bali Nusa Tenggara.**
- 6) Involvement of other Ministries/government institutions.**
- 7) Involvement of private sector and NGOs.**



Lastly, I would like to stress the importance of all institutional cooperation (national, international, NGOs, Private sectors) in overcoming of the damage of coastal area. We have developed a few techniques of mangrove rehabilitation and utilization. Now is the time for us to implement it massively for our environment, world, children, and future.

Thank You