



PROTECTING DUGONGS
CONSERVING SEAGRASS
CHANGE FOR COMMUNITIES



COUNTRY PRESENTATION: INDONESIA

INCEPTION WORKSHOP
THE GEF DUGONG AND SEAGRASS CONSERVATION PROJECT
20-21 October 2015
Colombo, Sri Lanka



Map of The Republic of Indonesia National Sovereignty and Jurisdictions



1. The biggest archipelago country in the world: 1,904,569 km²
2. Number of island: 17.504 islands,
3. Population more less than 240 Million (2011) inhabitants:
 - 44% rural and 56% urban.
 - 60 % living in coastal.
 - Population of the fisheries household (2013) : 671.625 households.
 - Poverty rate is 10.96% (2014) or equal 27,73 million inhabitants.
4. coast lines : 95.181 km (2nd longest in the world)

Number of MCA 145 areas totally 16.451.075,96 Ha which are consist of 42 Nationally managed and 103 locally managed by Provincial/District.

20 PRIORITY SPECIES (ENDANGERED AND THREATENED) 2015-2020

FISHES

1. NAPOLEON
2. TERUBUK
3. BCF / BANGGAI
CARDINAL FISH
4. ARWANA
5. INDONESIAN EEL/SIDAT
6. SEA HORSE
7. WHALE SHARK
8. MANTA RAY
9. PRISTIS
10. OCEANIC WHITETIP
SHARK AND
HAMMERHEADL
11. SUN FISH

REPTIL

12. TURTLE
13. LABI-LABI

ECHINODERMATA

14. TERIPANG

MAMALIA

15. WHALE/DOLPHIN
16. DUGONG

COELENTERATA

17. HARD CORAL
18. ISIS Spp

MOLUSCA

19. GIANT CLAM
20. LOLA

DUGONG SIGHTSEEING IN INDONESIA



Source, BAPEDA BINTAN

Seagrass-Dugong in Indonesia

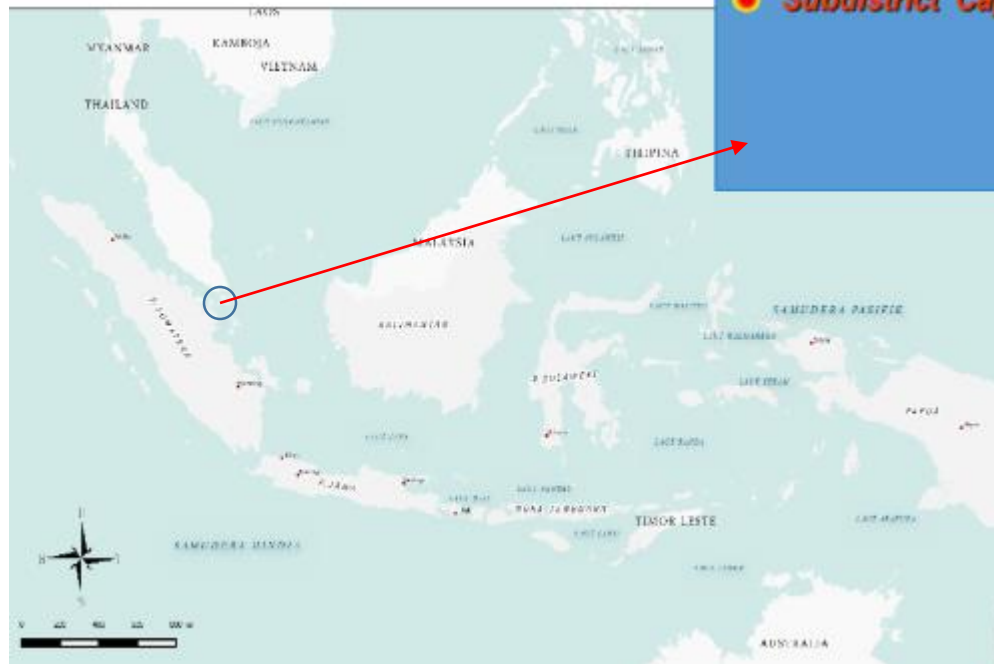
- Indonesian archipelago features the most important focal areas for seagrass-dugong distribution
 - Connecting two major basins of Indian Ocean and Pacific Ocean
 - Complex marine ecoregion with different development pressures
- HOWEVER:
 - We are lacking complete distribution map of seagrass species across Indonesia
 - As critical habitat for Dugong, vague information exist on the disappearance of seagrass meadows
 - Dugong population, habitat use/home range and other ecological information are scarce



Information Gap Related Dugong in Indonesia

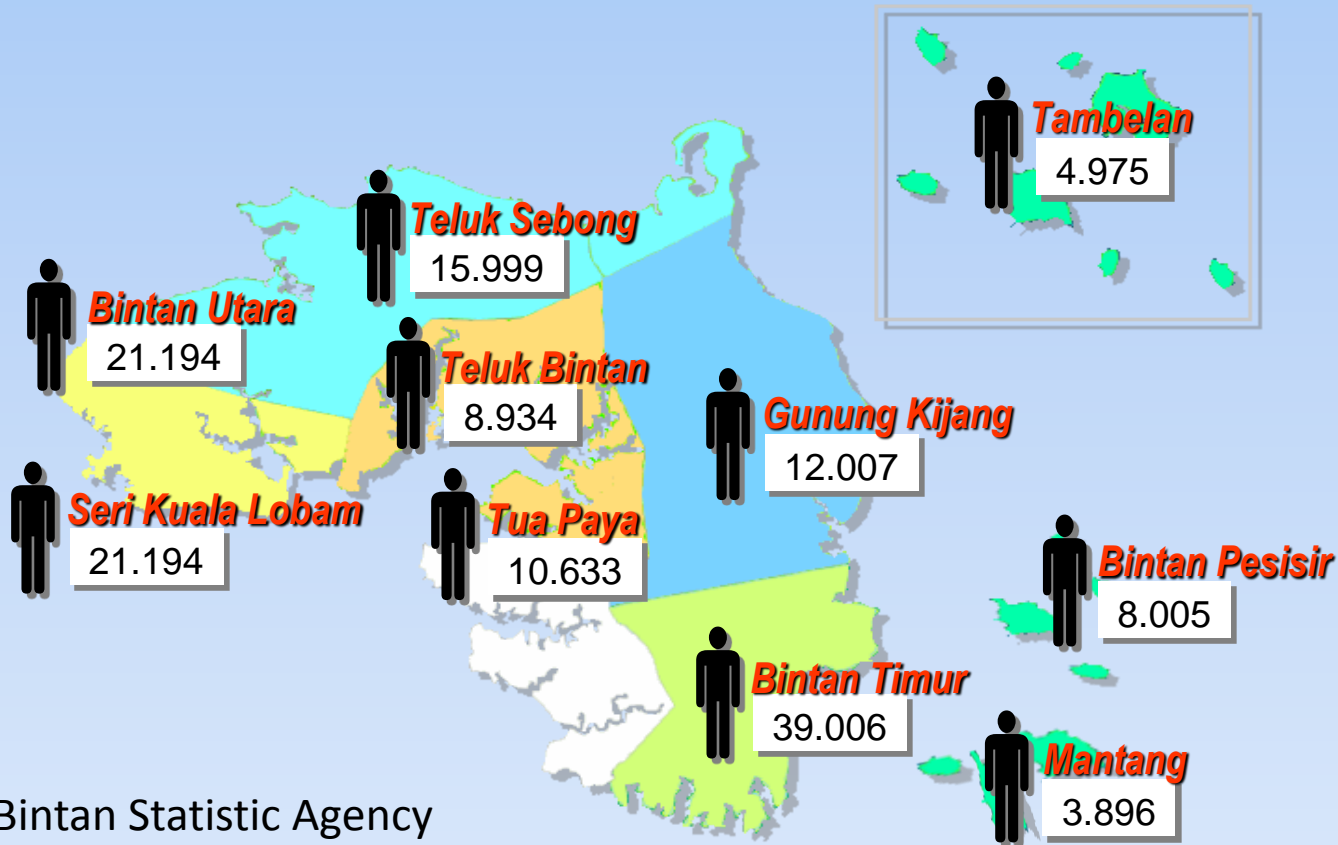
- Recent status of dugong population
- Exploitation level
- Migration area
- Information of life cycle

MAP OF DSCP LOCATION IN INDONESIA



- ✓ Bintan District has an area about 58.216,01 Km², which are consist of seas: 57.906 Km² and land: 1.310,01 Km²
- ✓ Bintan District have 10 subdistrict

- ✓ Population of Bintan District in 2010 is about 142.281 which consist of men: 73.664 and woman 68.617.
- ✓ Population density 107 inhabitant/km².
- ✓ Average growth 2,98%.



@Bintan Statistic Agency

population



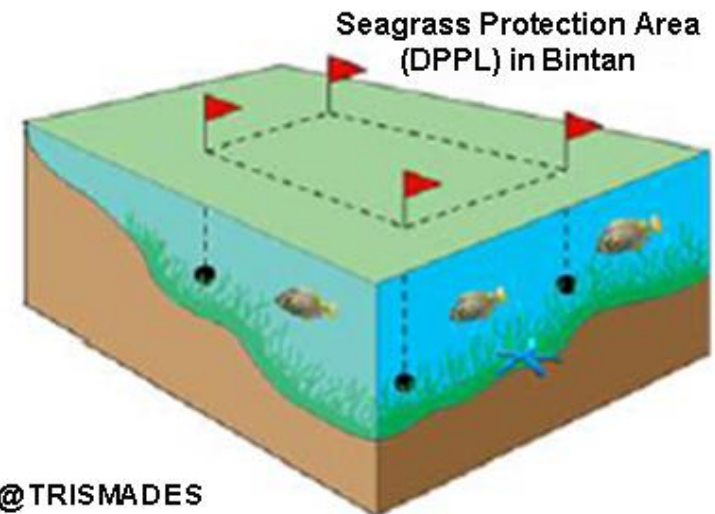
Why Bintan As A Location Of DSCP?

- ✓ High biodiversity on sea grass, which are 9 of 12 species that can be found in tropic area;
- ✓ High biodiversity biota in seagrass habitat
- ✓ Seagrass ecosystem is associated with an other important ecosystem

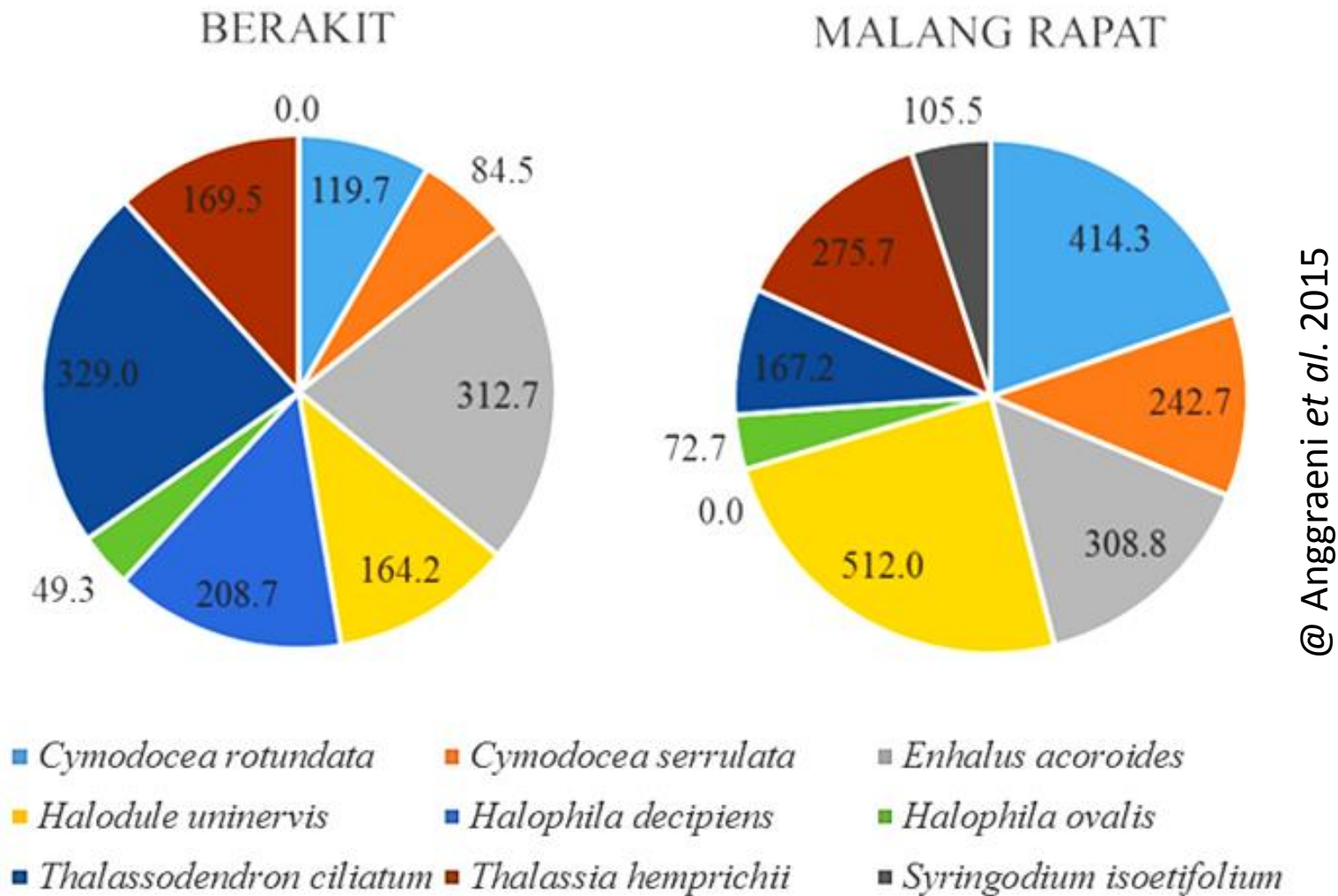


The importance of BINTAN as one focal area for ID

- Previous history:
 - Traditional dugong hunters exist (Berakit & Air Klubi)
 - Previous implementation of Seagrass Protection Area at three villages (by TRISMADES)
 - Frequent dugong stranding events
- Most stranding events on Dugong were during northwest monsoon (Nop-Feb), entangled by fishing ropes &/ trapped inside *kelong*
- Rapid development of tourism industry, high dependency of fishermen to seagrass resources, inoperative DPPL at present serve as CHALLENGES to seagrass-dugong conservation in the area



Seagrass species composition and density in North (Berakit) & Northeast (Malang Rapat) of Bintan



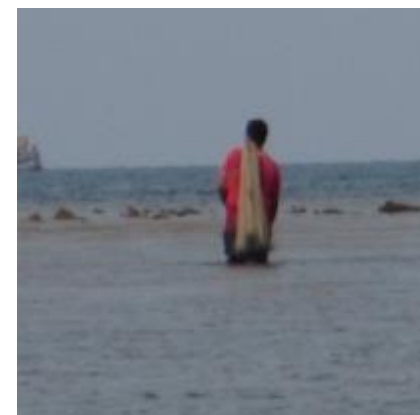
Bintan Island



- East Coast of Bintan Island is demonstration site for society-based seagrass management that facilitated by Indonesian Institute of Sciences and funded by UNEP (Wouthuyzen et al., 2009)
- DPPL has been legalized under each village regulation

Fisheries activity in near-shore of East Coast Bintan

Jenis biota	Rangking tangkapan	Rangking SRI	SRI
Berakit			
<i>Siganus doliatus</i>	1	31	0,61
<i>Portunus pelagicus</i>	2	6	0,99
<i>Siganus canaliculatus</i>	3	34	0,42
<i>Choerodon anchorago</i>	4	9	0,99
<i>Scarus dimidiatus</i>	5	19	0,98
<i>Siganus guttatus</i>	6	36	0,23
<i>Scarus ghobban</i>	7	7	0,99
<i>Lethrinus ornatus</i>	8	23	0,91
<i>Lethrinus reticulatus</i>	9	11	0,99
<i>Holothuria scabra</i>	10	1	0,99
Malang Rapat			
<i>Siganus canaliculatus</i>	1	34	0,42
<i>Siganus guttatus</i>	2	36	0,23
<i>Siganus doliatus</i>	3	31	0,61
<i>Portunus pelagicus</i>	4	6	0,99
<i>Gymnocranius microdon</i>	5	16	0,99
<i>Choerodon anchorago</i>	6	9	0,99
<i>Scarus ghobban</i>	7	7	0,99
<i>Lethrinus ornatus</i>	8	23	0,91
<i>Lethrinus reticulatus</i>	9	11	0,99
<i>Lutjanus carponotatus</i>	10	12	0,99



Small-scale fisheries in Bintan Island depend on seagrass ecosystem
7 out of 10 dominant catches are highly connected to seagrass ecosystem

Tourism Development

Tourism access



Rising in tourist visit



Source: Indonesian Statistic Centre (2015)

Current Issues

Reserve marking lost and non-active monitoring



Destructive fishing potential



Tourism investment by foreign



Community Awareness on Dugong

Fishers voluntarily released the trapped dugong

Dugong release is supported by local government



Morowali,
South Sulawesi

Dugong release by
Toli-Toli District
Regent



Bintan, 2014

South Kalimantan,
2015



Community Awareness on Dugong



Organize training on marine mammals first responder in 12 location and 550 people trained

Dugong skeleton for community awareness

Dec 2010



Feb 2015



Pengudang Village, Sub-District of Teluk Sebong, Bintan

INDONESIA PROPOSAL ON DSCP:

Total Fund US\$ 1.000.000

1. Strengthen And Operationalize National Policy Strategy And Action For Dugongs And Seagrass Conservation (comp 4.1, 4.2); **ID1 = US\$ 153,000**
2. Improving National Awareness And Research Of Dugong And Seagrass In Indonesia (comp 1.2, 3.1, 3.2, 3.3); **ID2 = US\$ 444,000**
3. Community Based Conservation And Management Of Dugong And Seagrass Habitat In Bintan Island, Riau Archipelago Province, Indonesia (comp 1.1, 1.2, 1.3, 3.1, 3.2, 4.1, 4.2); **ID3 = US\$ 353,000**

Expected Results:

- Activity 1

1. Established NPOA of Dugong and Seagrass in Indonesia
2. Established legislation for NPOA of Dugong and Seagrass in Indonesia
3. Established Project Implementation Structural Arrangement
4. Established NDCC (National Dugong Conservation Committee)

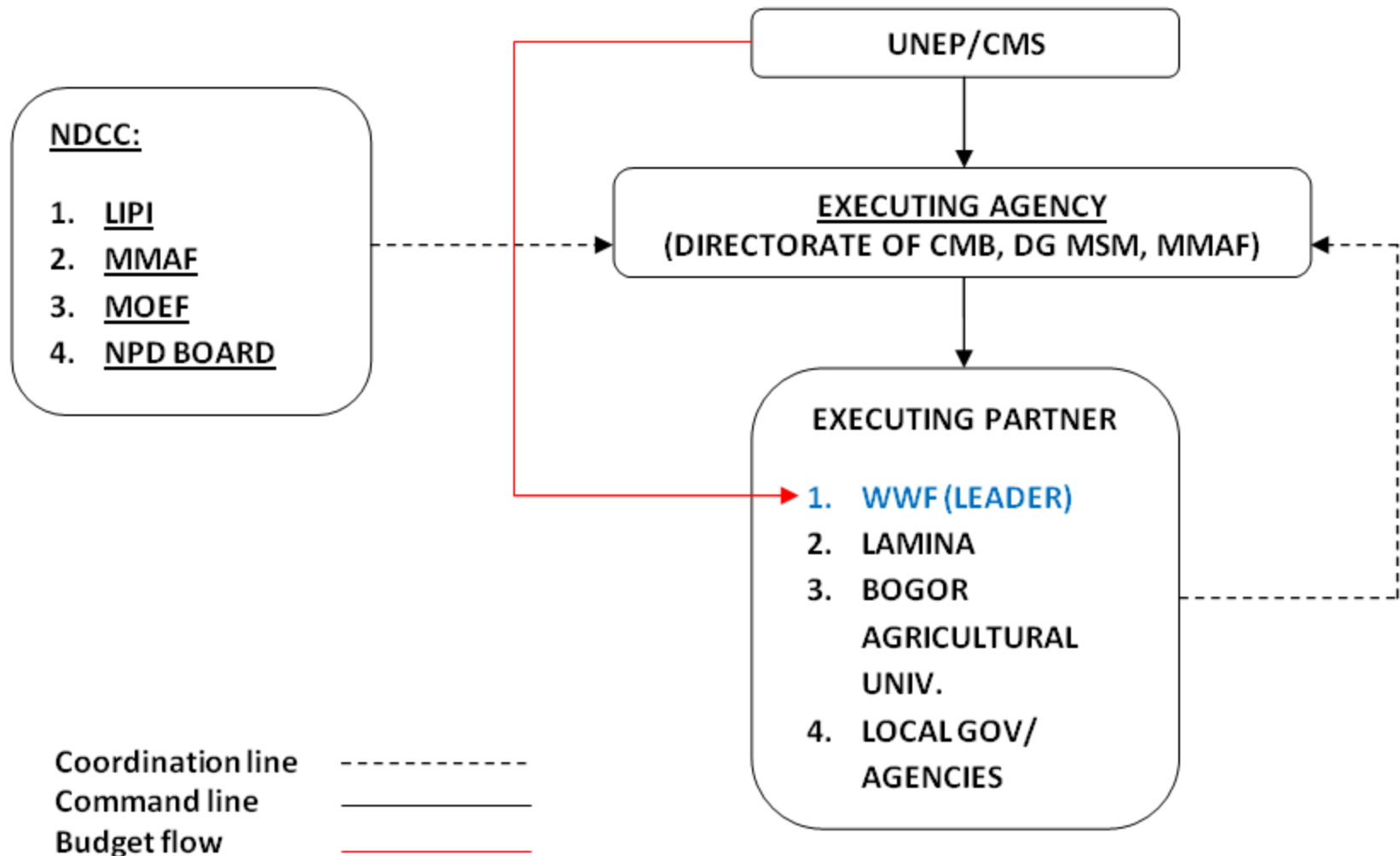
- Activity 2

1. Awareness of community on dugong and seagrass enhanced
2. Capacity of research and monitoring of dugong and seagrass improved
3. Scientific information on dugong and seagrass available for management and conservation

- Activity 3

1. Community – based stewardship of dugong and seagrass strengthened
2. Awareness and capacity of community and stakeholders on dugong and seagrass improved
3. Management of local MPAs harmonized and integrated

PROJECT ORGANISATION STRUCTURE OF DSCP IN INDONESIA





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صندوق محمد بن زايد
للمحافظة على الكائنات الحية
The Mohamed bin Zayed SPECIES CONSERVATION FUND



Thank you for your attention!

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