COUNTRY PRESENTATION: INDONESIA

INCEPTION WORKSHOP
THE GEF DUGONG AND SEAGRASS CONSERVATION PROJECT
20-21 October 2015
Colombo, Sri Lanka
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 (2^nd 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
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 is consist of men: 73,664 and woman 68,617.

Population density 107 inhabitant/km\(^2\).

Average growth 2.98%.
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 another 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

@ Anggraeni et al. 2015
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

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

<table>
<thead>
<tr>
<th>Jenis biota</th>
<th>Rangking tangkapan</th>
<th>Rangking SRI</th>
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<tbody>
<tr>
<td>Berakit</td>
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<tr>
<td>Siganus dolius</td>
<td>1</td>
<td>31</td>
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<td>Portumus pelagicus</td>
<td>2</td>
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<td>Scarus dimidiatus</td>
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<td>Holothuria scabra</td>
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<td>Malang Rapat</td>
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<td>Siganus canaliculatus</td>
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<tr>
<td>Lutjanus carponotatus</td>
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</tbody>
</table>

@ Anggraeni et al. 2015
Tourism Development

Tourism access

Rising in tourist visit

Foreign tourist

<table>
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<th>Month</th>
<th>Number</th>
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<td>June</td>
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<td>July</td>
<td>28181</td>
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<tr>
<td>August</td>
<td>34193</td>
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</tbody>
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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

20 - 21 October 2015  Colombo, Sri Lanka
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
Thank you for your attention!

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