



Bay of Bengal Large Marine Ecosystem Project



Report of the Marine Protected Areas working group meeting 11-12 February 2014 • WorldFish, Penang, Malaysia

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Report of the “Marine Protected Areas Working Group Meeting”

11-12 February 2014

WorldFish, Penang, Malaysia

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TABLE OF CONTENTS

1.0 BACKGROUND	3
2.0 THE MPA WORKING GROUP MEETING	3
3.0 OPENING OF THE WORKSHOP	4
3.1 Opening remarks by Dr. Sarah Park, Natural Resource Management (NRM) Discipline Director, WorldFish	4
3.2 Opening remarks by Mr. Ku Kassim B. Ku Yaakob, FRI Malaysia	4
3.3 Opening remarks by Mr. Abu Muntalib, MPDM Malaysia	4
4.0 WORKSHOP OBJECTIVES AND EXPECTED OUTPUTS	5
4.1 Objectives	5
4.2 Workshop Output	6
4.3. Mechanism of the workshop	6
5.0 PRESENTATIONS	7
5.1 Country updates, Progress on MPA Pilot intervention	7
5.1.1 Bangladesh	7
5.1.2 India	7
5.1.3 Indonesia	9
5.1.4 Malaysia	11
5.1.5 Maldives	11
5.1. 6 Myanmar	13
5.1.7 Thailand	13
5.1.8 Sri Lanka	13
5.2. Introduction to MPA database and Reefbase	14
5.3 MPA management Effectiveness tools	14
6.0 Summary	14
7.0 Revisited: Interactive map walkthrough and MPA database overview	15
7.1 MPA verification	15
7.1.1 Bangladesh	15
7.1.2 India	15
7.1.3 Indonesia	15
7.1.4 Malaysia	16
7.1.5 Maldives	16
7.1.6 Myanmar	16
	1

7.1.7 Sri Lanka	16
7.1.8 Thailand	16
7.2 MPA MEAT sharing result	16
7.3 Presentation of Draft information for Country policy brief and brochure	16
7.4 Presentation on Final Policy Brief Input	17
7.4.1 Myanmar	17
7.4.2 Maldives	17
7.4.3 Sri Lanka	18
7.4.4 Malaysia	18
7.4.5 India	18
7.4.6 Bangladesh	18
7.4.7 Indonesia	19
7.4.8 Thailand	19
7.5 Recommendation for MPA database completion and maintenance	19
7.6 Recommendation for completion process of policy brief and MPA brochure	19
7.7 Recommendation for capacity development and other potential project interventions from a country and Transboundary perspectives	20
7.7.1 Bangladesh	20
7.7.2 Sri Lanka	20
7.7.3 Maldives	21
7.7.4 Indonesia	21
7.7.5 Malaysia	21
7.8 Trans boundary MPA project in the Strait of Malacca sub-region preliminary concept note	21
8.0 Closing	23

Appendices

- Appendix 1- The meeting Agenda
- Appendix 2- Participant List
- Appendix 3- MEAT Template
- Appendix 4- MPA Maps of the BOBLME countries
- Appendix 5- MPA Policy Brief- Case of Thailand
- Appendix 6 - Group Photo of Delegates

1.0 BACKGROUND

This report presents the proceedings of the Bay of Bengal Large Marine Ecosystems Project’s Marine Protected Areas (MPA)¹ Working Group Meeting held on the 11-12 February 2014, at Penang, Malaysia. The meeting was hosted by WorldFish, Penang, Malaysia and was attended by Marine Protected Area Specialist and practitioners from the eight BOBLME countries namely, Bangladesh, India, Indonesia, Malaysia, Maldives, Myanmar, Sri Lanka and Thailand. These are the countries working together through the Bay of Bengal Large Marine Ecosystem (BOBLME) Project. The BOBLME project hopes to lay the foundations for a coordinated programme of action designed to improve the lives of the coastal populations through improved regional management of the Bay of Bengal environment and its fisheries. A few resource persons and a facilitator supported the proceedings of the meeting.

The meeting focused on the Subcomponent 3 (Improved Understanding and Predictability of the BOBLME Environment) to share information with other regional and global environmental assessment programs for improved understanding of the BOBLME ecological functions and processes. The objective of the Subcomponent 3.2 (Marine Protected Areas in the Conservation of Regional Fish Stocks) is to develop a better understanding of and promote a more comprehensive approach to the establishment and management of marine protected areas (MPAs) and fish refugia² for sustainable fish management and biodiversity conservation objectives.

2.0 THE MPA WORKING GROUP MEETING

The BOBLME MPA Working Group first met in January 2011 in Malaysia (BOBLME-2011-Ecology-06) to discuss and validate the MPA status review “Status of Marine Protected Areas and Fish Refugia in the Bay of Bengal Large Marine Ecosystems” (BOBLME-2011-Ecology-10), prepared by BOBLME implementing partners University of Washington and WorldFish; to identify gaps in MPA networks and prepare recommendations for capacity building and potential interventions to strengthen MPA management in the region. A second meeting was held in Thailand in February 2012 (BOBLME-2012-Ecology-07) to follow up on this work, noting the progress made in the implementation of pilot activities; gain an understanding of the FAO Technical Guidelines on MPAs and Fisheries (<http://www.fao.org/docre/015/i2090e/i2090e.pdf>) and to provide input to the drafting process of the BOBLME MPA brochure and policy advisories.

¹ Marine Protected Areas (MPAs) are defined by IUCN as “any area of intertidal or subtidal terrain, together with its overlying water and associated flora, fauna, historical and cultural features, which has been reserved by law or other effective means to protect part or all of the enclosed environment”, IUCN, CORIDO and ICRAN 2008

² Fish refugia are MPAs that have been set up to protect a fishery resource during some part of its life history, usually during spawning or during the juvenile stage. IUCN, World Commission on Protected Areas (IUCN-WCPA) 2008

3.0 OPENING OF THE WORKSHOP

3.1 Opening remarks by Dr. Sarah Park, Natural Resource Management (NRM) Discipline Director, WorldFish

Dr. Sarah Park welcomed the participants to Penang and to WorldFish and mentioned WorldFish’s role in participating and supporting the activities that work to increase food security and reduce poverty among stakeholders dependent on marine environments. She mentioned the importance of the BOBLME project and the use of MPA’s as central instrument for reducing conflicts in the marine environment and balancing ecosystem services.

3.2 Opening remarks by Mr. Ku Kassim B. Ku Yaakob, FRI Malaysia

Mr. Ku Kassim in giving the opening address on behalf of Mr. Ismail Ishak, the BOBLME national coordinator welcomed all the participants to Malaysia and brought to the attention that this is the third meeting on the topic of MPA for the BOBLME project. He thanked WorldFish for hosting the event and highlighted the objective of the workshop to develop and recommend a future course of action and policy directions for sustainable management of MPAs for fisheries and biodiversity conservation both from a country and transboundary perspective.

3.3 Opening remarks by Mr. Abu Muntalib, MPDM Malaysia

Mr. Muntalib Juli from the Department of Marine Parks Malaysia spoke on behalf of Dr. Sukarno bin Wagiman the director general of the Department of Marine Parks, Malaysia. He welcomed all the participants to beautiful Penang. He highlighted the fields of fisheries management, environmental management and marine protected areas management in which he is involved in as an ideal combination of fields for him to say a few words in opening the meeting.

He mentioned the fact that 70 per cent of the earth’s surface consists of oceans and more than 3.5 billion people depend on the oceans for food, energy and income. Naturally therefore the protection of oceans through Marine Protected Areas will play a central role in addressing some of the global development challenges of our time such as food and energy security and poverty and climate change problems.

He highlighted that marine protected areas now cover some 2.8 per cent of the global oceans- an area larger than Europe. There has been an increase of 0.6 per cent in the ocean areas protected since 2012. In 2010, most of the world governments agreed to protect at least 10 per cent of the world’s marine and coastal zones by 2020. To achieve that target the protected areas need to increase by one per cent each year.

He mentioned that Malaysia as a part of the “Coral Triangle “is recognised by scientists to have the world’s highest marine biodiversity. Coral diversity is highest in East Malaysia with an estimated 550 species while Peninsular Malaysia has over 360 species of corals. Coral

reefs represent an economically important ecosystem and are the foundation of a significant percentage of Malaysia’s tourism industry. It is estimated that the coral reef related businesses in Malaysia are worth approximately US\$635 million annually in food, fisheries and tourism.

He also mentioned that MPAs can be a complementary tool but would not be a substitute for other fisheries management measures. He reiterated that to achieve better outcomes from MPA management, improved collaboration and involvement of both environment and fisheries stakeholders are required.

He concluded by mentioning that the way forward is filled with challenges and opportunities especially with the approach of developing MPAs with multiple objectives. The need for engaging fishers and fishing communities, enabling empowerment, capacity building, knowledge generation and leadership development are seen as the kinds of support needed to further realise the opportunities that MPAs can deliver in the management of the ecosystems

4.0 WORKSHOP OBJECTIVES AND EXPECTED OUTPUTS

4.1 Objectives

The workshop facilitator Dr. K. Kuperan Viswanathan presented the workshop objectives and the expected output process to the participants. The main objectives of the workshop are:

- Undertake a review and update the MPA data and information posted on the web portal (<http://boblme.reefbase.org/mpadatabase.aspx>) and the status paper. In particular this requires validation and additional information on MPA locations and their gazette information.
- Finalise the MPA policy briefs for each country along the same lines of the brochure developed for Thailand. This requires that prospective participants have drafted and validated relevant summarized text for their respective country, following the Thailand sample.
- Discuss, develop and recommend a future course of action and policy directions for sustainable management of MPAs for fisheries and biodiversity conservation both from a country and Tran’s boundary perspective.

The Working Group Meeting will also note the progress made to date in the implementation of pilot activities on MPAs and deliberate on the application of MPA Management Effectiveness Assessment Tools. (The meeting agenda is as shown in Appendix 1)

4.2 Workshop Output

The key output expected from the workshop is as follow:

- Validated and completed data and information for inclusion in the MPA data base and status paper
- Final drafts of the BOBLME MPA Country Policy Briefs
- Updated information on the progress and status of MPA pilot site interventions
- Information on MPA Management Effectiveness Assessments disseminated
- Recommendations for capacity development and other potential project interventions from a country and transboundary perspective

4.3. Mechanism of the workshop

The country delegates at the workshop were briefed by the workshop facilitator on the mechanism for undertaking the meeting. The delegates were introduced and the participants were expected to provide updates on their respective countries activities and developments with regard to MPAs. There were 24 participants from the eight BOBLME project countries, six participants from WorldFish, one participant from BOBLME project team, one participant from IUCN Bangladesh, one participant from Flora and Fauna International and one facilitator/resource person from Malaysia. (The participant list is provided in Appendix 2)

First day

The country delegates at the workshop provided updated information on respective countries approach to Protected Area management and governance across sectorial institution.

The country delegates at the workshop were given presentations on the BOBLME MPA Atlas by the WorldFish team. This was follow by a presentation on MPA management Effectiveness tool (MEAT) by Mr Len Garces from WorldFish Philippines office. Delegates were then required to work on some exercise on how to fill in the assessment form.

Second day,

The workshop revisited the validation of the MPA database and also looked at the results of the exercises carried out from the previous day on the MEAT presentation. Draft information for MPA country Policy Brief and brochures was presented by Dr. Rudolf Hermes the Chief Technical Advisor of the BOBLME project. Country delegates then worked to finalize the MPA Country Policy Briefs and presented the draft policy briefs.

5.0 PRESENTATIONS

5.1 Country updates, Progress on MPA Pilot intervention

5.1.1 Bangladesh

- Coast line of Bangladesh extends about 710 km long stretching from south-west corner of the Sundarbans Mangrove Forest to the St. Martin’s Island in the south-east.
- Total continental shelf area covers roughly 66,400 km² and the exclusive economic zone (EEZ) spans 166,000 km² towards open sea up to 200 nautical miles outwards from baseline.
- As a signatory of Nagoya protocol, Bangladesh has committed to extend its MPAs to cover about 10% of her EEZ by 2020.
- The EEZ of Bangladesh including the coastal water supports over million fishers directly and indirectly to sustain their livelihoods
- The total contribution of the marine landings to the total fish production in the country is about 20% and the total production is 3.4 million metric tonnes. Of that more than half million tonnes is fisheries which are very rich in fish species and other biodiversity.
- Mangroves are very important in Bangladesh and this ecosystem is also shared between Bangladesh and India, and more than 50% of the mangroves are in Bangladesh territory.
- The current MPA status in Bangladesh is not very clear and no explicit definition of “marine protected area” exists.
- The Government is currently framing the Bangladesh Fisheries Policy
- In recent years, Protected Areas (PAs) developed mainly for hilsa fisheries management. Declaration of ‘hilsa-closed seasons’ - Hilsa fishing is banned in the four declared sanctuaries of
 - the ‘Middle Ground’ and ‘South Patch’ areas
 - (located in the most productive fishing grounds)
 - March to April in three sanctuaries, and November to January in the fourth.
- Bangladesh also declares closed seasons at key shrimp spawning sites

Q1: How fishers in Bangladesh can survive during the fishing closed seasons?

A1: During the closed seasons, poor fishers are supported by the government.

5.1.2 India

- India marine profile:
 - Length of coastline (8129 km);
 - Exclusive Economy Zone (2.02 km²)
- Human component: Marine fishers population is about 4.0 million but only 0.9 million are active fishers.

- Infrastructure component: landing centres, fishing harbour, mechanised vessel motorised vessel, non-motorised vessel
- India implements:

I. Closed season for mechanized sector:

i. June to August (45 days): Gujarat, Maharashtra, Goa, Karnataka, Kerala

ii. April to May (45 days): Tamil Nadu, Andhra Pradesh, Orissa, West Bengal

II. *Spatial closure:* Some states have restriction on the vessel jurisdiction area. Traditional vessel fishing area confined for operation up to 10 km from the coast while mechanized vessel can go up to beyond 23 km.

III. *Minimum legal size:* Specific for prawn and fish catches based on their weight and length.

- Currently there are 31 MPAs in India.
- MPA area: 7815.6 square km of total continental shelf area (1.67% of total continental shelf area)
- Four Coastal Regulation Zone Act 1991 – CRZ Category 1 is to protect ecologically sensitive areas like mangroves, coral reefs, marine national parks, sanctuaries
- To provide protection to these ecologically important areas, GOI initiated action through state Govts to create a network of MPAs under Wildlife (Protection) Act, 1972.
- To strengthen biodiversity conservation further, three biosphere reserves were notified in 1989 – A & N, GOMBR, Sundarbans
- Issues in MPA:
 - MPA management is not strong, managed by Wildlife Department but it's only concern on the protection of wildlife. MPA management is not fully evolved.
 - Legal issues, boundary demarcation, protection to infrastructure, absence of scientific management plan are major issues
 - No legally defined MPAS in Indian law. What are reported are selected sanctuaries and national parks declared under WLP (A) 1972 and WL (P) Amendment Act 1991. These are brought under a new heading protected area under WL (P) amendment Act, 2001
 - Poor MPA governance limit effectiveness
 - Lack of coordination between ministries (MoEF and MoA)
 - No participation from local communities in any fisheries and MPA development especially during the declaration of new MPAs
 - Ineffectiveness of fisheries regulation and impact on the traditional fisheries

- Fisheries rights are not considered into the procedure for notifying and declaring protected areas. Fisheries low in the political and governance agenda. While declaring CRZ notifications local communities are to be involved right from beginning and to be taken into confidence
- MPAs or other conservation measures affect primarily traditional fishers but not commercial fishing interests. Though fisheries regulation exists effective implementation is lacking except for very few like closed season
- Lack of clarity in MPA classification
- None of the MPAs existing in India are for fisheries purpose.

5.1.3 Indonesia

- Country profile : >9 5186 km (coastline) – 2nd longest in the world
 - : approximately 17504 islands
 - : 5.8 million square km of EEZ area.
- Legal basis for MPAs: amendment in Law no 27/ 2007 on Integrated coastal zone and small island management came into law on January 2014 where all MPAs will be managed by one institution, the Ministry of Marine Affairs and Fisheries (MMAF).
- Developed ministerial decree on designation mechanisms for zoning for MPA management plan, boundary mapping and MPA management effectiveness evaluation.
- In Indonesia, MPA is not only protected but a zoning system is implemented that supports marine biodiversity, sustainable fisheries and tourism. There are four zones in terms of paradigm: core zone, sustainable fisheries zone inside the MPA, utilization zone, and other zones
- MPA management: National MPAs managed by the national authorities and local MPAs managed by the local community.
- There is a strategic national plan with an objective to reserves 10 per cent of marine area into MPA. The target is 30 million ha of MPAs and is progressing to achieve 20 million ha in 2020. Currently 15.7 million hectares of MPAs have been established and has exceeded the target for 2014.
- MPAs within the BOBLME project : in 2011 declared 5 new MPAs , Aceh Jaya, Aceh besar, Agam, Padang City and Bengkalis
- Pulau Pini game reserved should be excluded from BOBLME MPA database
- Bengkalis (for *Tenulosa macruca* ; Decree 69/ 2012) – Terubok closed system
- MPA management Effectiveness:
 - Developed national standard and has been declare by DG

- The principles of E-MPA: adapted from several authors and also based on Indonesia’s regulation. Included support, governance, socioeconomic and biophysical aspects
- 5 colours level and most of MPAs in Indonesia still in red level
- BOBLME Pilot sites:

Sabang (local government) and Pulau Pieh

- To document management status of Pulau Pieh NMRP and Sabang District MPA.
- To measure management effectiveness level as a basis for improving management of these MPAs over time.
- Providing scientific information for adaptive management in the future

Both Sabang and Pulau Pieh E-MPA result: Still in yellow towards green. Recommendation to improve both management effectiveness levels towards green.

Questions:

1. Who is actually managing the MPA sites?

National government and local communities in some area

2. Do you have any such document to share on the management of Indonesia MPA?

Can visit the website ; <http://kkji.kp3k.kkp.go.id/>

3. How the Indonesian government managing the pollution issue?

Monitoring of pollution is conducted by the directorate of surveillance in MMAF, collaboration between managers unit with clear guidelines on the sanctions

4. Question for BOBLME and WorldFish, is there is any clear definition for considering and area as an MPA?

WorldFish did not provide any clear definition but the metadata produced by WorldFish should give some idea on what is the MPA.

Basically in this region MPA is only used by environment department but fish sanctuary is used by fisheries department. However there is similarity in both terms as these are used for protection in area based management and this should be the basis for the definition. At the moment the list used by WorldFish contains both MPAs and fish sanctuaries.

5.1.4 Malaysia

5.1.4.1 Marine Parks Departments presentation

- Marine Park is under the Marine Park department of Malaysia management. This department was established in 2007
- The governance of MPA is through a series of national, state and local management
- There are 42 areas declared as Marine Parks, a no-take- zone of two nautical miles around the 38 islands and one nautical mile around 4 islands with a total area of 235,723 hectares
- Pulau Payar is the only MPA in the BOBLME boundary
- Legal arrangement: The Fisheries Act 1985 and amendment made in 2011 due to the establishment of new department in 2007 applies.

Questions

- I. What is the definition that WorldFish use to define the MPA in the database (FFI)

To compile list of MPA in Malaysia, WorldFish refer to the booklet published by Marine Park Department (2012 Compendium) However, WorldFish is aware that the list of MPAs for Malaysia is incomplete after receiving comments from the Fisheries Department. The list should also include Fisheries Prohibited Area and WorldFish has incorporated the comment. WorldFish realizes that BOBLME also focuses on fisheries protection.

- II. How do you focus on the MPA development for tourism and coral protection?

Malaysia has a Standard procedure that is followed by all the relevant departments for developing MPAs.

- III. Is there any penalty imposed on people who break the rules for protecting the environment especially on pollution?

In managing pollution, the Department of Marine Parks collaborate with the Environmental department which is also under the same ministry.

5.1.4.2 Fisheries Malaysian Department presentation

- Provide comment to the MPA database: Anticipating changes in Pulau Kaca to Pulau Kacha (amendment in 2012)
- Fisheries department has gazetted Fisheries Protected Area and MPA in Pulau Besar, Tanjung Tuan, Pulau Singa Besar and Pulau Sembilan (state park)

5.1.5 Maldives

- There are additional three new MPA were declared in island of Fuvamulah

- *Dhandimagu kilhi* - Mangrove Area
- *Bandaara kilhi* (mangrove) and surrounding wetland area
- *Thundi* Area- Beach (including the Reef area)

- 5 sites protected under the Maldives Grouper Fishery Management Plan. The 5 sites have been identified as some of the top grouper spawning aggregation sites. sites cannot be used for any purpose, except as a transportation route. All types of fishery, including bait fishery will be prohibited in those areas. Diving, anchoring and waste disposal are also prohibited.
 - Lhaviyani atoll - Aligaa channel
 - Kaafu atoll - Dhiffushi channel
 - Vaavu atoll - Boamas channel
 - Meemu atoll - Muli and Mulah channels
 - Dhaalu atoll - Kudahuvadhoon channel

- Management and Enforcement
 - Hanifaruu Management plan has been implemented.
 - Expansion of boundaries of existing MPAs – so the boundary expanded from 200m landwards to 1000 m seawards
 - GREEN FUND - trust fund dedicated for managing the protected area started in 2013

- Status : 47 protected area- 4 mangroves, 5 islands, 1 beach area 37 marine protected area

Question:

I. Who is managing the MPA?

Maldives has 2 different offices.

- i. The ministry of fisheries managing the Grouper management fishery –
- ii. Environment protection agency (EPA) managing other MPAs

II. How about the enforcement in the MPA areas?

Enforcement is under EPA

III. Is boundary data available in Maldives to show the exact location? Can the shape file be shared with WorldFish?

The polygon is the administrative polygon and the MPA name is there. It is not in the online GIS data yet but it is available in the EPA office. All MPA polygons are available except for 5 grouper fishery sites. The polygon will be shared with WorldFish

IV. How is the waste management implemented in Maldives?

- a. Waste management is a challenge for Maldives, but Maldives has finalised the regulation on waste management and the regulation provides guideline on how to manage the waste which applies to lakes and marine areas.

5.1.6 Myanmar

- *Country profile:*
 - coastline - 2832 km ;
 - continental shelf – 228,7 81sq-km
 - Territorial sea; 486,000 sq-km
- *MPA in Myanmar*
- Protected area included national parks, shark protection areas, wildlife sanctuaries and mangrove reserves. Protected biodiversity including coral reefs, mangroves and threatened species.
- There are only 6 MPAs in Myanmar

Q: Who suggests for new MPAs? Is it NGOs, government of others stakeholder?

Usually the government.

5.1.7 Thailand

- Thailand provide an example of one of the MPA in Thailand, Segarass protected zone management project at Koh sarai Satun Province
- There are two new projects currently:
 - Catalysing Sustainability of Thailand’s Protected Area System (CATSPA) – This project developed the protected area management system on six National Parks(5 inland, 1 marine) ; Mu Ko Tarutoa
 - Strengthening Andaman Marine Protected Areas Network (SAMPAN) - This project seeks to improve the natural resources management of three Marine National Parks; Mu Ko Surin, Mu Ko Similan and Mu Ko Lanta.

Q: Do you consider artificial reef as MPA?

Worldfish suggest it should be considered if there is an element of protection.

5.1.8 Sri Lanka

- MPA status:
- National park (6), Marine sanctuaries (13), Fishery management areas (12)

- Declared and managed by the Department of Wildlife Conservation (DWLC) under the 1993 Fauna and Flora Protection Ordinance (FFPO)
- After 2010 no declaration on any new MPA
- Provisions for Protected Areas is under the Amended Coast Conservation and Coastal Resource Management Act
- Three coastal and marine sites are conserved and managed through co-management (Pigeon islands, Uppar lagoon and Potuwil-Panama sand dunes)
- Bar reef Marine Sanctuary – Pilot sites under BOBLME
 - declared in 1992 under the Fauna and Flora Protection Ordinance
 - The largest marine protected area in Sri Lanka (306.7 square km)

5.2. Introduction to MPA database and Reefbase

- Ms Teoh Shwu Jiau presented the overview of the BOBLME MPA database and provided a demo on how to use the website and the interactive map
- Provided the URL <http://boblme.reefbase.org>
- Group work: Validation of database and documentation of added information
- Country delegates were provided with the map and list of MPA for their country. Country delegate was required to check the map and the list to validate the information (These maps are as shown in Appendix 4)

5.3 MPA management Effectiveness tools

- Len Garces provided a presentation on the MPA management effectiveness assessment tool. The tool was developed based on the Philippines experience. This tool is evidence based/ scoring template.
- Len also demonstrated how to fill in the MEAT form and interpret the indicators obtained from filling in the scores.
- Group work: Country delegates worked in groups and they were provided with the softcopy of the form. They need to select one of their MPAs for the MEAT assessment. The objective was to provide experience to the country delegates on how to fill in the MEAT form.

6.0 Summary

Overall, day one of the meeting was used to look at the current situation with regard to MPAs in the eight countries and exchange information on the problems and approaches for dealing with the issues at hand. The participants were reminded of the need to work on the policy briefs that need to be completed by the country delegate for the second day activity.

7.0 Revisited: Interactive map walkthrough and MPA database overview

The second day of the meeting was used to look at the maps and database of the MPAs.

Ms. Shwu Jiau provide a demonstration on

- how to use the interactive map
- how to edit the MPA database

She also requested country delegates to provide contact person for updating the MPA database. The list of country focal MPA person for MPA databases is as below:

Country	Full name	E-mail Address
Bangladesh	Mr Quazi Sarwar Imtiaz Hashmi	quazihashmi@gmail.com
India	Dr P U Zachariah	zachariapu@yahoo.com
Indonesia	Mr Suraji	suraji_a@yahoo.com
Malaysia	Mr Abd. Muntalib Juli	muntalib@nre.gov.my
Maldives	Mr Rifath Naeem	rifath.naeem@epa.gov.mv
Myanmar	U S. Julius Kyaw	irnp.dof@gmail.com
Sri Lanka	Dr Wasantha Pahalawathhaarachchi	vasalanka@gmail.com
Thailand	Mr Ronawon Boonprakob	ronawon@hotmail.com

7.1 MPA verification

Below is the updated information provided by the countries representative in validation of MPA list in the database:

7.1.1 Bangladesh

- Minor changes on the list
- Only some information in the table are missing and they will do the necessary to update the table

7.1.2 India

- No changes on the list
- Missing information on the habitat type and IUCN category, they will provide the information

7.1.3 Indonesia

- 5 additional new MPA should be included

- Indonesia will provide the missing shape file

7.1.4 Malaysia

- Minor changes
- Need to check and make clear the status of Tanjung Tuan and Pulau Sembilan

7.1.5 Maldives

- Detected some errors in the spelling of some MPAs
- 7 new sites : 5 spawning aggregation sites, 2 house reef
- Should revise the site area because of the boundary expansion
- Ask to double check the Seagrass area

7.1.6 Myanmar

- Only six MPA in Myanmar
- Additional information on the habitat type should be included: crocodile protection and mangrove protection areas.

7.1.7 Sri Lanka

- Four MPA sites are missing in the MPA database
- Will provide the GPS coordinates for all the sites

7.1.8 Thailand

- Identified three MPA sites with no polygon, and they will supply the file
- Few sites with incorrect geographical area and they will send the correct boundary

7.2 MPA MEAT sharing result

Len Garces continued with the MEAT sharing result and showed a few examples from the data provided by the country delegates. The delegates got a feel of how to interpret the results and use the MEAT template for assessing the MPAs.

7.3 Presentation of Draft information for Country policy brief and brochure

Mr. Rudolf Hermes presented the template for country policy brief and brochure. This work is still in developing progress since two years ago and was discussed during the last meeting group at Bangkok in 2012. Questionnaires were sent to all the countries. Some countries have submitted the policy brief draft but still need some revision on the text. Some of the

suggestion was the text should be shorter to catch decision makers’ attention; it should cover all MPAs information in the country. Thus, the objective of this session is to complete the draft policy briefs

The country policy brief content should include key messages as in the list below:

- Title: Country’s Marine Protected Areas
- General Message (What, Why, Threats – General)
 - MPAs are Critical to Ecological Integrity and Human Well-Being
- Key Message 2 (Why – Value for People)
 - Marine Resources Provide Valuable Ecosystem Services
- Key Message 3 (How – Governance)
 - Regulatory Framework; Area sizes; Numbers
- General Message
 - MPAs Face Serious Challenges
- Key Message 4 (Human Impacts)
 - Human Impacts Cause the Degradation and Depletion of Natural Resources
- Key Message 5 (Governance challenges)
 - Poor MPA Governance Limits Effectiveness
- Recommendations for Improving MPAs

7.4 Presentation on Final Policy Brief Input

The country delegates presented the output of their policy brief draft and the draft was open for comment during the presentation

7.4.1 Myanmar

MPAs are critical to ecological integrity and human well being

- Suggested to put some figures on how much marine resources contributes to the nation

Marine resources provide valuable ecosystem services

- The last two sentences should be changed because at the moment tourism activities are limited within MPA. Revenue from tourist is expected to increase as currently it’s limited.

7.4.2 Maldives

Marine Resources Provide Valuable Ecosystem Services

- The sentences “It provides almost 71% of the national employment, 49% of public revenue, 98% of the exports and generates roughly 89% of the national GDP” –

Should show the disaggregation whether the value are coming from fisheries or tourism.

Regulatory Framework

- Suggestion to add the total area of the MPAs in hectare or square km.

MPAs Face Challenges

- “Improve the Environmental Assessment process” – suggested to change word improve to strengthened

7.4.3 Sri Lanka

- Suggestion to add the economic value of tourism also

Multiple Regulations

- In the paragraph, it should mention the role of the Coastal conservation department and Environment Department in managing the MPA

Environmental and physical challenge face

Merge some of the text because it has the same meaning.

7.4.4 Malaysia

- Overall comment is to add more texts.

Marine Resources Provide Valuable Ecosystem Services

- Suggestion to add value from fisheries sector

Poor MPA governance limits effectiveness

- Need additional bullet regarding community participation and also involvement with other stakeholders. It should focus on governances and not only government. The question is there enough involvement from the community and to identify whether this a challenge or limitation?

7.4.5 India

Marine resources provide valuable ecosystem services

- Suggestion to merge the last bullet with the upper paragraph because it looks same
- Suggestion to add Gulf of Mannar (third bullet)

7.4.6 Bangladesh

Marine Resources Provide Valuable Ecosystem Services

- Shark fin as the marine product should be removed from the paragraph. BOBLME is now working hard with fisheries department to develop the national plan of action for shark.

7.4.7 Indonesia

Recommendations for improving MPAs

- In the sentence and recommendation for BOBLME Project, it was suggested to just write general statements.
- Specific detail on the MPA network

7.4.8 Thailand

Recommendations for improving MPAs

- Bullet number 2 – word “multistakeholder consultation” can be stressed using the word “participation”
- Last bullet- to add FAO international guideline
-

7.5 Recommendation for MPA database completion and maintenance

Participants have provided a valuable input to validate and update the MPA database and next step are:

- Will update the database using the participants’ feedback
- Will send notification e-mail to the country focal points on the update and will ask them to check again the data on the website
- Provide link to the relevant MPA data provider
- Put other information especially for MPA managers to monitor their MPA such as oceanography data (eg: SST anomalies to predict coral bleaching)

Question:

i. How is the mechanism to sustain the website after the project is ended?

Answer: BOBLME website can be migrated to FAO or APFIC website and similar also with the BOBLME MPA website. However it depend on the WorldFish funding, whether WorldFish is able to maintain the website. But, will think about the mechanism to sustain the websites.

7.6 Recommendation for completion process of policy brief and MPA brochure

- Participants have tolerated all the comments and together with the input from the workshop, the draft policy brief has been successfully written.
- The next process will involve two stages:
 - i. The draft will be given to Science committee editor to polish and perhaps to condense the text. Will build a feedback loop and will ask the country to

check and compare the content if it still the same as what has been discussed during the workshop.

ii. Draft will be directed to Science committee team for design and layout. Two pages policy brief will be produced. Countries will be contacted if there are other needs such as photos. Soft copy and hardcopy of the policy brief will be produced.

- Time frame: 5-6 months

7.7 Recommendation for capacity development and other potential project interventions from a country and Transboundary perspectives

7.7.1 Bangladesh

Status of the project on Developing Framework for new MPAs:

- BOBLME and Bangladesh are working together to develop a framework for establishment of new MPA in Bangladesh.
- The progress is quite slow.
- In the last year, several consultations has been conducted with the stakeholder as part of this activity
- Now, the framework is still under endorsement process by the ministry, however it has received good feedback.

Next steps

- Piloting three sites (St. Martin, Hilsha ground and Sundarban) , however some data limitations are there, such as species data.
- Proposal to develop national secretary for supporting the declaration of new MPA
- Suggestion on Capacity building on the effectiveness assessment of the MPA

7.7.2 Sri Lanka

- Sri Lanka is working with BOBLME on the assessment of Bar reef sites however it has been delayed due to the administration issue, thus Sri Lanka requested for no cost extension of the project

- Sri Lanka recommended for the introduction of the MPA management effectiveness assessment tool and assistance to develop the tool for the country.

Dr. Rudolf suggested Mr. Len Garces to assist in the development of management effectiveness assessment tools and conduct training in different MPAs and the output will be the assessment tool that will be adopted by Sri Lanka.

7.7.3 Maldives

- Recommendation to provide capacity building on the management effectiveness assessment tools for Maldives

7.7.4 Indonesia

- Current project- piloting management effectiveness in two MPAs in west coast of Sumatera
- Proposed – continue the assessment for another 19 MPAs with additional activities as follows:
 - Conduct monitoring, ecology, social economy surveys in every site
 - Develop MPA network
 - Continuity of the effectiveness assessment
 - Training for MPA managers
 - Trans boundary MPA management plan for the eight countries

7.7.5 Malaysia

Mr. Muntalib from Marine Park Department suggested inviting Malaysian Forestry Department in the next meeting for additional information on the marine managed area for mangroves

7.8 Trans boundary MPA project in the Strait of Malacca sub-region preliminary concept note

Presenter: Dr. Rudolf Hermes

- Preliminary concept note for a trans boundary MPA project
- Will involve three neighbouring countries: Malaysia, Thailand and Indonesia
- There are several trans boundary areas in BOBLME region:
 - GoM

- Malacca strait
- Sundarban
- Mergui/ Meyeik archipelago

- This project will focus on the Malacca straits area
- “Marine Managed Area” for fisheries purposes, with an emphasis on the management of shared stocks of small pelagic and neritic tuna species -
- Currently not much information available online about other types of protected areas in the region, such as fisheries management areas and fisheries refugia areas
- Objective : to contribute to improved sustainability of the utilisation of the northern Straits of Malacca marine space and its aquatic resources for the benefit of coastal states and communities through the establishment of a Marine Managed Area
- Project components:
 - Institutional component (sub-regional, national and local levels): Establishment of transboundary management of the Straits of Malacca marine and coastal area
 - Fisheries management component (sub-regional and national levels): Development of fisheries management strategy and plan for key fishery resources in the northern Straits of Malacca (in particular with regard to Indian mackerel and neritic tuna resource conservation)
 - MPA co-management component (national and local level, addressing transboundary issues as required):
 - Marine pollution?
 - Potential start-up activities:
 - a characterisation/study of the region - sectors, players, ecosystem valuation
 - modify an existing/set up a platform for dialogue
 - discuss MMA / marine spatial planning (or whatever acronym is acceptable)
 - goals - identify goals of the existing stakeholders; international obligations; national goals; shared goals etc
 - Undertake a range of activities in support of the goals, including continue dialogue, development of a plan etc.
 - pilot a MMA - including training managers, stakeholders; support a MMA process - with review mechanism.

This project will take about 5 years

Project partners: Fisheries, environment and parks authorities in Indonesia, Malaysia and Thailand, relevant NGOs, fishing community, CSOs, SEAFDEC, WorldFish, other regional projects.

8.0 Closing

The meeting was closed by Dr. Rudolf Hermes, Chief Technical Advisor of BOBLME. He thanked the delegates for taking the time to attend the workshop and provide valuable information to update the information on MPAs and MPA activities in their respective countries. Their inputs will go a long way in meeting the objectives of the BOBLME project.



1.0 Background

Bangladesh, India, Indonesia, Malaysia, Maldives, Myanmar, Sri Lanka and Thailand are working together through the Bay of Bengal Large Marine Ecosystem (BOBLME) Project and lay the foundations for a coordinated programme of action designed to better the lives of the coastal populations through improved regional management of the Bay of Bengal environment and its fisheries.

The objective of **BOBLME Component 3 (Improved Understanding and Predictability of the BOBLME Environment)** is to share information with other regional and global environmental assessment programmes for improved understanding of the BOBLME ecological functions and processes. The objective of the **Subcomponent 3.2 (Marine Protected Areas in the Conservation of Regional Fish Stocks)** is to develop a better understanding of and promote a more comprehensive approach to the establishment and management of marine protected areas (MPAs) and fish refugia for sustainable fish management and biodiversity conservation objectives.

2.0 The MPA Working Group Meeting

The BOBLME MPA Working Group first met in January 2011 in Malaysia ([BOBLME-2011-Ecology-06](#)) to discuss and validate the MPA status review “Status of Marine Protected Areas and Fish Refugia in the Bay of Bengal Large Marine Ecosystem” ([BOBLME-2011-Ecology-10](#)), prepared by BOBLME Implementing Partners University of Washington and WorldFish; to identify gaps in MPA networks and prepare recommendations for capacity building and potential interventions to strengthen MPA management in the region. A second meeting was held in Thailand in February 2012 ([BOBLME-2012-Ecology-07](#)) to follow up on this work, noting the progress made in the implementation of pilot activities; gain an understanding of the FAO Technical Guidelines on MPAs and Fisheries (<http://www.fao.org/docrep/015/i2090e/i2090e.pdf>) and to provide input to the drafting process of the BOBLME MPA brochure and policy advisories.

Objectives

The objectives of the MPA Working Group meeting in February 2014 are to

- undertake a review and update of the MPA data and information posted on the web portal (<http://boblme.reefbase.org/mpadatabase.aspx>) and the status paper. In particular this requires validation and additional information on MPA locations and their gazette information.
- finalise the MPA policy briefs for each country along the same lines of the brochure developed for Thailand. This requires that prospective participants have drafted and validated relevant summarized text for their respective country, following the Thailand sample.
- discuss, develop and recommend a future course of action and policy directions for sustainable management of MPAs for fisheries and biodiversity conservation both from a country and transboundary perspective.

The Working Group Meeting will also note the progress made to date in the implementation of pilot activities on MPAs and deliberate on the application of MPA Management Effectiveness Assessment Tools.

Expected Outputs

- Validated and completed data and information for inclusion in the MPA data base and status paper
- Final drafts of the BOBLME MPA Country Policy Briefs
- Updated information on the progress and status of MPA pilot site interventions
- Information on MPA Management Effectiveness Assessments disseminated
- Recommendations for capacity development and other potential project interventions from a country and transboundary perspective.

Date and Venue

The workshop will be held at WorldFish on 11-12 February 2014 in Penang, Malaysia.

Draft Agenda

Day 1 Tuesday 11 February 2014

08.30 Registration

09.00 Opening remarks and welcome

Dr. Sarah Park, Discipline Director of NRM, WorldFish

Mr. Ku Kassim bin Ku Yaacob, FRI Penang, DoF

Mr Abd. Muntalib Juli, DMP, MoNRE, Putrajaya

Workshop Objectives, Overview of the Agenda, Introduction of Participants

Dr. Kuperan, Facilitator

Country Updates, Progress on MPA Pilot Interventions

Country Participants (10-12 minutes each, incl. brief discussions)

Bangladesh, India, Indonesia, Malaysia, Maldives, Myanmar, Sri Lanka, Thailand

- 12.30 *Lunch*
- 13.30 Country Updates (cont'd)
- Introduction to MPA Database (and Reefbase)
 Ms. Teoh Shwu Jiau, WorldFish
- Group Work: Validation of Database and Documentation of Added Information
- MPA Management Effectiveness Assessment Tools
 Mr. Len Garces, WorldFish
- Facilitated Discussion of Experience with the Application of Assessment Tools
 Recommendations
- 17.00 Closing for Day 1
- Home work: Completion of Additional Database Inputs
- Day 2 Wednesday 12 February 2014**
- 09.00 Revisit: Validation of Database and Documentation of Added Information
- 10.00 Presentation of Draft Information for MPA Country Policy Briefs (and Brochure)
 Thailand, Sri Lanka, Myanmar, Maldives, Malaysia, Indonesia, India, Bangladesh
 Plenary Discussion
- Group work: Finalization of MPA Country Policy Briefs
- 12.00 *Lunch*
- 13.00 Group work (cont'd)
- Presentation of Final Policy Brief Input
- Recommendations for Completion Process of Policy Briefs and MPA brochure
- Recommendation for MPA Data Base Completion and Maintenance
- Recommendations for Capacity Development and other Potential Project
 Interventions from a Country and Transboundary Perspective
- Any other matters
- 17.00 Closing



*Eight countries, connected by one ecosystem,
working together to secure its future.*



Appendix 2

Participant List				
Country	Full name	E-mail Address	Position	Organisation
Bangladesh	Mr Habibur Rahman	habib_6882@yahoo.com	Senior Assistant Secretary	Ministry of Environment & Forests
Bangladesh	Mr Quazi Sarwar Imtiaz Hashmi	quazihashmi@gmail.com	Director	Department of Environment
Bangladesh	Dr Md Istiak Sobhan	istiak.sobhan@iucn.org	Programme Coordinator	IUCN Bangladesh Country Office
Bangladesh	Mr Mohammad Shahad Mahabub Chowdhury	shahad.mahabub@iucn.org	Project Manager	IUCN (International Union for Conservation of Nature)
Bangladesh	Nasiruddin Md. Humayun	nasir_dof@yahoo.com	Director	Marine Fisheries Office, Department of Fisheries (DOF)
India	Dr P U Zachariah	zachariapu@yahoo.com	Head	Demersal Fisheries Division CMFRI
Indonesia	Mr Suraji	suraji_a@yahoo.com	SP, M.Si	Directorate of Marine and Aquatic Resources Conservation
Indonesia	Mr Aris Budiarto	arisbudiarto@gmail.com	S.Pi	Directorate of Fisheries Resources Management
Indonesia	Mr Teguh Satria Gunawan	teguh.satria@gmail.com	ST	Directorate of Marine and Aquatic Resources Conservation
Malaysia	Mr Abd. Muntalib Juli	muntalib@nre.gov.my	Marine Parks Officer	Department of Marine Park Malaysia Ministry of Natural Resources and Environment
Malaysia	Ms Cheryl Rita Kaur	cheryl_rk@mima.gov.my	Head	Centre for Coastal and Marine Environment Maritime Institute of Malaysia (MIMA)
Malaysia	Mr Ku Kassim Bin Ku Yaacob	kukassim@gmail.com	Research Officer	Department of Fisheries
Malaysia	Dr Aileen Tan	aileen@usm.my		School of Biological Sciences Universiti Sains Malaysia
Maldives	Mr Mohamed Ahusan	mohamed.ahusan@gmail.com; mahusan@mrc.gov.mv	Senior Research Officer	Marine Research Center Ministry of Fisheries and Agriculture
Maldives	Mr Rifath Naeem	rifath.naeem@epa.gov.mv	Assistant Director	Environment Protection Agency
Maldives	Ms Fahmeeda Islam	fislam@mrc.gov.mv	Senior Research Officer	Marine Research Centre Ministry of Fisheries and Agriculture
Myanmar	Sophie Benbow	Sophie.Benbow@fauna-flora.org	Programme Manager (Marine) Asia-Pacific	Fauna & Flora International
Myanmar	U Phone Htut	irnp.dof@gmail.com	Staff officer	Forest Department Ministry of Environmental Conservation and Forestry
Myanmar	Daw San San Nwe	trdd.fd@gmail.com	Officer	Department of Forestry
Myanmar	U S. Julius Kyaw	irnp.dof@gmail.com	Fishery Officer	Department of Fisheries
Sri Lanka	Mr W K G Pushpakumara	pushpaccd@yahoo.com	Planning Assistant (Coastal Resource Development)	Coast Conservation and Coastal Resource Management Department
Sri Lanka	Mr B H J Premathilake	bhjprem@yahoo.com	Assistant Director	Coast Conservation Department
Sri Lanka	Mr A. J. M. Gunasekare	ajm12_2000@yahoo.com	Manager- Operation (Acting)	Marine Environmental Protection Authority (MEPA)

Sri Lanka	Dr Wasantha Pahalawathhaarachchi	vasalanka@gmail.com	Principal Scientist	Inland and Aquaculture Resources Division NARA
Sri Lanka	Mr M Marcus	mmallikage@yahoo.com	Deputy Director	Department of Fisheries and Aquatic Resources
Thailand	Mr Ronawon Boonprakob	ronawon@hotmail.com		Marine and Coastal Resources Research and Development Institute Department of Marine and Coastal Resources
Thailand	Mr Withaya Panthakit	putae1973@gmail.com	Fisheries Biologist	Andaman Sea Fisheries Research and Development Centre Phuket
Thailand	Dr Rudolf Hermes	rudolf.hermes@boblme.org	Chief Technical Advisor	Bay of Bengal Large Marine Ecosystem Project (BOBLME)
Malaysia	Dr Kuperan Viswanathan	kuperan@gmail.com	Facilitator	University Utara Malaysia
Philippines	Mr Garces, Len	l.garces@cgiar.org	Research Fellow	WorldFish
Malaysia	Dr Douglas Beare	d.beare@cgiar.org	Senior Scientist	WorldFish
Malaysia	Teoh Shwu Jiau	s.teoh@cgiar.org	GIS Manager	WorldFish
Malaysia	Nurulhuda Ahmad Fatan	n.ahmadfatan@cgiar.org	Research Analyst	WorldFish
Malaysia	Stanley Tan	s.l.tan@cgiar.org	Senior System Analyst	WorldFish
Malaysia	Jason Jon Benedict	j.benedict@cgiar.org	Geospatial Data Analyst	WorldFish

MPA MEAT

Marine Protected Area Management Effectiveness Assessment Tool

The MPA MEAT is a harmonized version of the MPA Report Guide of the Coastal Conservation and Education Foundation, Inc. (CCEF, White et al. 2004) as modified by the Philippine Environmental Governance Project 2 (EcoGov2), (Arceo et al. in prep), facilitated by the MPA Support Network (MSN) through the CTI (Coral Triangle Initiative) Support Partnership or CTSP. Some elements are incorporated in the MPA MEAT to gauge and highlight important threshold indicators and processes that help promote and achieve MPA management effectiveness outputs and outcomes.

The MPA MEAT was initiated by the:



National CTI Coordinating Committee

MPA MEAT

What is the MPA MEAT?

The MPA MEAT aims to assess governance in terms of enforcement, implementation and maintenance. However, MPA management in the context of governance approaches in the Philippines is not limited to the physical management of the MPA only but also includes direct and indirect uses, threats, people, and the systemic interaction between people and resources.

What is an effectively managed MPA?

IUCN defines management effectiveness as the degree to which management actions are achieving the goals and objectives of a protected area (Hockings et al., 2000). Management effectiveness is defined, in the context of the MPA MEAT, according to four different levels: (1) established, (2) strengthened, (3) sustained, and (4) institutionalized. MPA effectiveness, on the other hand based on several criteria and/or governance indicators in combination with the biophysical and socioeconomic impact indicators and socioeconomic impact indicators.

Where to use the MPA MEAT?

MPA MEAT is a management tool to help measure MPA effectiveness using simplified tools allowing an objective evaluation of MPAs. It can be applied to locally-managed MPAs and marine areas declared under the National Integrated Protected Area System Act (RA 7586). It can be implemented through an assisted self-evaluation or key informant interviews. Documents provide proof of completion of targets. For NIPAS marine areas, consider only the areas within the seascape that are directly managed or linked to the PAMB.

How to use the MPA MEAT?

The 48-item modification of the CCEF rating to incorporate other indicators and weighted importance values takes into account the suggestion of the WB score card (Staub and Hatziolas 2004) and of certain threshold governance processes (EcoGov2 in prep., Arceo et al.) to help gauge some outputs/outcomes and define effectiveness (Hockings et al. 2000).

Each level in the MPA MEAT have criteria and activities that need to be satisfied as described in the guide questions. The thresholds indicated with an asterisk (*) are given higher points. The minimum score including all the scores of the thresholds should be satisfied to pass the level. For levels 3 and 4, the age of the MPA is considered also as a prerequisite for proving “sustainability” and “institutionalization”.

The levels in this tool are sequential. The highest level, which the MPA being assessed has satisfied the minimum score, is its Management Level. The cumulative score is used to measure the MPA management rating. The minimum number of years of MPA operation in Levels 3 and 4 should be satisfied in order to pass these levels.

BACKGROUND

MPA MEAT AS BENCHMARKING TOOL FOR CTI NPOA GOAL ON MPAS

The benchmarking of Marine Protected Area (MPA) management effectiveness is a crucial part in improving functionality of governance and management of MPAs in the Philippines. It serves as a baseline for the monitoring of the Coral Triangle Initiative (CTI) Philippines' National Plan of Action (NPOA) areas and dovetails with tracking of commitments to the Convention on Biological Diversity (CBD).

The MPA Management Effectiveness Assessment Tool (MPA MEAT) was developed as a benchmarking tool as a result of considerable cooperative work between several institutions and individuals working to help establish and sustain MPA as an important strategy to adaptively manage the coastal and marine areas of the Philippine Archipelago.

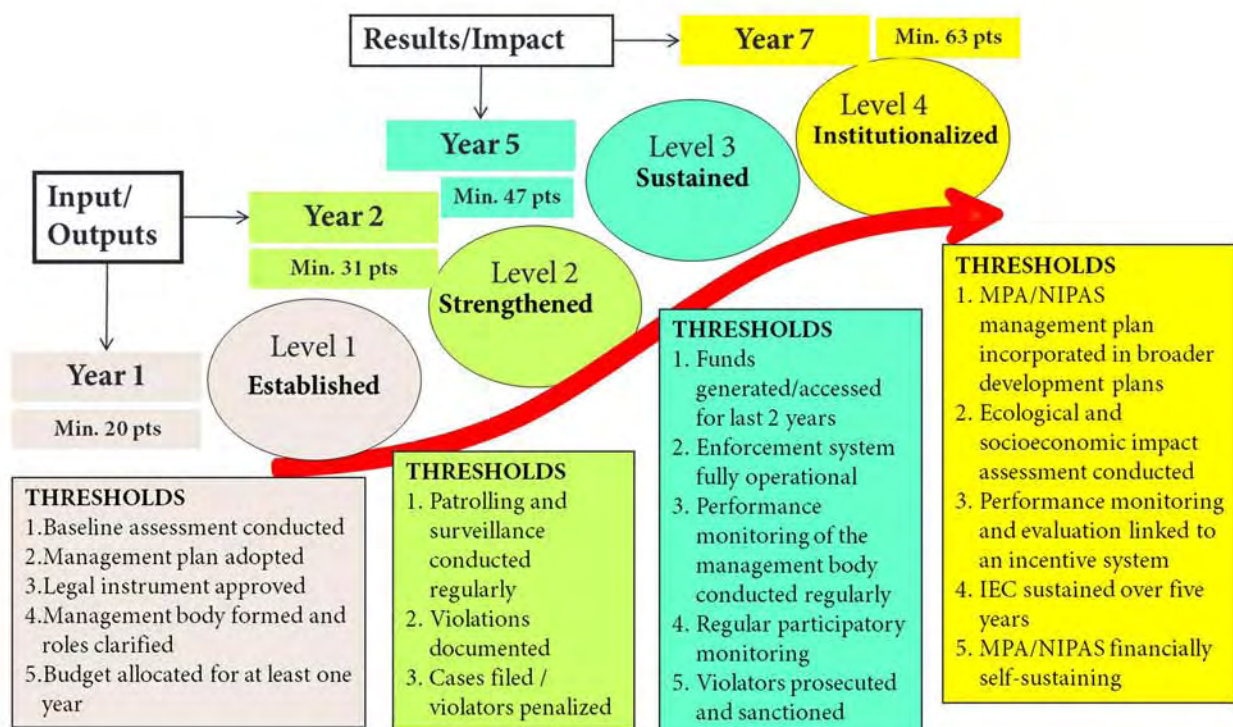
It is envisioned that the MPA MEAT will be implemented widely to help pursue the goal of improving effectiveness of MPAs in the Philippines as part of the CTI (see CTI Goal on MPAs). It can be used as a minimum set of standards for compliance to the CTI NPOA.

How to interpret the results of the MPA MEAT?

There are three ways to interpret the MPA MEAT results: through an overall score or rating, gauging by management effectiveness level, and by categorizing responses into management focus. With the MPA MEAT, an MPA can be “excellent” in terms of level of effort put into MPA management but only get a Level 2 rating (MPA Management is Effectively Strengthened) if not all of the thresholds for Level 3 are met. Grouping the answers into Management Focus will help the management body determine which areas they are doing well and which management focus require improvements.

Interpretations	Description
1. Overall score	<ul style="list-style-type: none"> - Measures the level of effort devoted to MPA management - Higher scores mean greater effort put into MPA management and can potentially increase MPA effectiveness
2. Management Effectiveness Level	<ul style="list-style-type: none"> - Incorporates significantly-important activities called “thresholds” that MPA management bodies must undertake to enable effective governance of an MPA - The following factors must be met in order to achieve a given Management Effectiveness Level: <ul style="list-style-type: none"> o Minimum number of years since establishment o Minimum overall score o All “threshold” questions satisfied for that Level and those before it
3. Management focus	<ul style="list-style-type: none"> - MPA management activities can be divided into key categories which help in improving effectiveness of MPAs - These are: Management plan, Management body, Legal instrument, Community participation, Financing, IEC activities, Enforcement, Monitoring, and Development - By grouping the questions into these categories, the MPA management body can gauge where its strengths and weaknesses lie and objectively identify areas for improvement

The MPA MEAT can also be used as a guide for improving MPA management effectiveness using the threshold activities identified. Consolidating the experiences of various institutions and non-government organizations, the MPA MEAT presents a compilation of parameters that enable effective management of MPAs.



COMMUNITY PERCEPTION SURVEY FORM

This perception survey can be used to gauge the level of awareness of stakeholders, their perceived benefits from the MPA, their perception on the functionality of the management body and their willingness to support the MPA. Results of this perception survey may be used by the management body to adjust their community awareness programs and activities.

Introduction statement: *Good morning/afternoon. Can you spare a few minutes of your time? I would like to interview you regarding the (Name of the MPA) in (Barangay), (Municipality/City). (Municipality/City) is currently conducting its regular Community Perception Survey. I only have 6 questions to ask your opinion. The information generated from this survey will be used to improve the management of the (Name of the MPA).*

{Once the person agrees, politely introduce yourself -- name and LGU designation [e.g. "I am Juan Dela Cruz. I am a Fisheries Technician of the (name of LGU)]." Then proceed to conduct the interview}

Fisher stakeholder no. _____ Non-fisher stakeholder no. _____

Name: _____ Age: _____

Address: _____

No. of years residing in the Barangay: _____ Occupation: _____

1. Do you know about the (*interviewer states the name of the MPA and place*)?

Yes

How did you know? _____

What are the functions & benefits of the MPA? (Cite at least 2) _____

No

Why? _____

2. FOR DIRECT (fishers) STAKEHOLDERS:

Did your fish catch increase because of the MPA?

Yes

No

Undecided

Why? _____

FOR Non-fisher STAKEHOLDERS:

Have you benefitted from the MPA?

Yes

No

Undecided

In what way? _____

3. Is there an increase or decrease in the incidence of illegal fishing activities in the area since the MPA was established?

Increase

Decrease

Undecided

To what would you attribute the change? _____

4. Do you think that the MPA management group is functional?

Yes

No

Undecided

If yes, in what ways is it functional? _____

If no or undecided, why? _____

5. Do you think the MPA efforts can be sustained?

Yes

No

Undecided

Why? _____

6. Will you support the continued management of the MPA?

Yes

How will you support it? _____

No

What would make you support it? _____

MPA MANAGEMENT EFFECTIVENESS ASSESSMENT TOOL

version: 01 Feb 2011

MPA Type:

- Locally-managed MPA
- NIPAS Seascape (for **NIPAS sites**, please **skip this page** and proceed to the next)

MPA information for single MPAs or locally-managed MPAs (provide maps if available)

MPA Name:	Complete Name	<input style="width: 100%;" type="text"/>
	Short Name	<input style="width: 100%;" type="text"/>
	Sitio, Barangay(s)	<input style="width: 100%;" type="text"/>
Location:	Municipality(ies)	<input style="width: 100%;" type="text"/>
	Province	<input style="width: 100%;" type="text"/>

Corner / Point	Longitude	Latitude
Point 1	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>
Point 2	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>
Point 3	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>
Point 4	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>
Point 5	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>
Point 6	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>
Point 7	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>
Point 8	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>

Size *Hectares*

MPA Type: *Sanctuary/Reserve/Combination*

Ecosystems Protected: *Coral reef, mangrove, seagrass, etc.*

Coral Cover *Percent live coral cover (include year)*

Fish biomass / density *indicate units (kg/ha. or individual/ha.)*

Year Established: *Based on legal document*

Legislation: *Name and code of ordinance / R.A.*

Evaluation date: *mm/dd/yyyy*

Evaluator(s) details:

Name	Affiliation	Email address(es)	Contact number(s)

* The third biennial MPA Awards and Recognition (Para El MAR 2011) will be using this form as a nomination form. If you wish to nominate your MPA, kindly mail or email your form to the secretariat (contact details at the end of this document)

MPA Information for MPAs under NIPAS Act

(provide maps if available)

NIPAS Name:	Complete Name	<input type="text"/>
	Short Name	<input type="text"/>
Encompassing:	Municipality(ies)	<input type="text"/>
	Province	<input type="text"/>

	Corner / Point	Longitude	Latitude
Boundary Coordinates (Latitude & Longitude)	Point 1	<input type="text"/>	<input type="text"/>
	Point 2	<input type="text"/>	<input type="text"/>
	Point 3	<input type="text"/>	<input type="text"/>
	Point 4	<input type="text"/>	<input type="text"/>
	Point 5	<input type="text"/>	<input type="text"/>
	Point 6	<input type="text"/>	<input type="text"/>
	Point 7	<input type="text"/>	<input type="text"/>
	Point 8	<input type="text"/>	<input type="text"/>

Size *marine area (hectares)*

Size *land area (hectares)*

Coral Cover *Percent live coral cover (include year)*

Fish biomass / density *Indicate units (kg/ha. or individual/ha.)*

Year Established: *Based on legal document*

Legislation: *Name and code of ordinance / R.A.*

Evaluation date: *mm/dd/yyyy*

Evaluator(s) details:

Name	Affiliation	Email address(es)	Contact number(s)

For each management zone or MPA in the NIPAS Seascape

(provide additional pages if necessary; provide maps if available)

Management zone or MPA name	Complete name	<input type="text"/>	
Size	Hectares	<input type="text"/>	
Zone/MPA type:	<i>Sanctuary, reserve, etc.</i>	<input type="text"/>	
Boundary Coordinates (Latitude & Longitude)	Corner / Point	Longitude	Latitude
	Point 1	<input type="text"/>	<input type="text"/>
	Point 2	<input type="text"/>	<input type="text"/>
	Point 3	<input type="text"/>	<input type="text"/>
	Point 4	<input type="text"/>	<input type="text"/>
	Point 5	<input type="text"/>	<input type="text"/>
	Point 6	<input type="text"/>	<input type="text"/>
	Point 7	<input type="text"/>	<input type="text"/>
	Point 8	<input type="text"/>	<input type="text"/>
Year Established:	<i>Based on legal document</i>	<input type="text"/>	
Legislation:	<i>Legal document name</i>	<input type="text"/>	

For each management zone or MPA in the NIPAS Seascape

(provide additional pages if necessary; provide maps if available)

Management zone or MPA name	Complete name	<input type="text"/>	
Size	Hectares	<input type="text"/>	
Zone/MPA type:	<i>Sanctuary, reserve, etc.</i>	<input type="text"/>	
Boundary Coordinates (Latitude & Longitude)	Corner / Point	Longitude	Latitude
	Point 1	<input type="text"/>	<input type="text"/>
	Point 2	<input type="text"/>	<input type="text"/>
	Point 3	<input type="text"/>	<input type="text"/>
	Point 4	<input type="text"/>	<input type="text"/>
	Point 5	<input type="text"/>	<input type="text"/>
	Point 6	<input type="text"/>	<input type="text"/>
	Point 7	<input type="text"/>	<input type="text"/>
	Point 8	<input type="text"/>	<input type="text"/>
Year Established:	<i>Based on legal document</i>	<input type="text"/>	
Legislation:	<i>Legal document name</i>	<input type="text"/>	

LEVEL 1 - MPA IS ESTABLISHED (17 Items, 27 Points)				
Criteria / Guide Questions		Allowable Points	Actual Points	Remarks / Means of verification
1.1 Establishment based on Participatory Process (5/5)				
MPA established with the participation of the community based on informed decisions				
1.1.1	MPA concept explained to stakeholders	0 or 1		
Was the MPA concept explained to the stakeholders? <i>Affected stakeholders have been oriented on MPA concepts and benefits</i>				<ul style="list-style-type: none"> Minutes of consultations & public hearings Activity report / proceedings of the consultation
1.1.2	MPA accepted and approved by the community or local government	0 or 1		
Was the MPA accepted by the community (for local MPAs) or local governments (for NIPAS seascapes)? <i>Public consultation on site selection should be conducted in order to gain community approval and acceptance</i>				<ul style="list-style-type: none"> Resolution(s) Minutes of meeting
1.1.3	BASELINE ASSESSMENT CONDUCTED *	0 or 3		
Were the stakeholders engaged in baseline assessment using standard methods / any acceptable methods? <i>Baseline assessment survey includes biophysical assessment and community profile</i>				<ul style="list-style-type: none"> Biophysical assessment report PCRA/PRA report Technical reports of consultants BMS (for NIPAS seascapes) Names of local participants
1.2 Adoption of a Legitimate Management Plan (6/6)				
Management plan is adopted and legitimized by the LGU or Protected Area Management Board (PAMB) or similar legal body				
1.2.1	Management Plan Drafted	0 or 1		
Has the management plan been drafted?				<ul style="list-style-type: none"> Any draft of management plan
1.2.2	MPA plan prepared in a consultative and participatory manner	0 or 1		
Was the MPA/NIPAS plan prepared in a consultative and participatory manner?				<ul style="list-style-type: none"> Documentation of public consultation about the MPA plan
1.2.3	Functions of MPA management body explained through IEC	0 or 1		
Were the functions of the MPA management body and benefits from the MPA explained through initial IEC activities?				<ul style="list-style-type: none"> IEC materials
1.2.4	MANAGEMENT PLAN ADOPTED *	0 or 3		
Has the management plan been finalised and adopted?				<ul style="list-style-type: none"> Management Plan Resolution or ordinance
1.3 Legislations (Municipal Ordinance / Presidential Proclamation / Republic Act) (5/5)				
Management plan is adopted and legitimized by the LGU or Protected Area Management Board (PAMB) or similar legal body				
1.3.1	Legal instrument declaring the MPA has been drafted	0 or 1		
Has the legal instrument declaring the MPA been drafted? <i>For locally-managed MPAs: The Barangay Ordinance is in place and the Municipal Ordinance has been drafted. For NIPAS seascapes: a Republic Act has been drafted</i>				<ul style="list-style-type: none"> Draft or final ordinance / resolution Draft Republic Act (for NIPAS)
1.3.2	Consultations on legal instrument with stakeholders conducted	0 or 1		
Were there public hearings / community consultations on the legal instrument declaring the protected areas?				<ul style="list-style-type: none"> Minutes of public consultations Resolutions of endorsement
1.3.3	LEGAL INSTRUMENT APPROVED *	0 or 3		
Has the legal instrument establishing the MPA or NIPAS been approved? <i>For locally-managed MPAs: a Municipal Ordinance declaring the MPA should have been enacted For NIPAS seascapes: a Republic Act should have been enacted by Congress</i>				<ul style="list-style-type: none"> Municipal Ordinance declaring the MPA for the locally-managed MPAs Republic Act (for NIPAS)

LEVEL 1 - MPA IS ESTABLISHED (17 Items, 27 Points)			
Criteria / Guide Questions	Allowable Points	Actual Points	Remarks / Means of verification
1.4 Management body formed and functional (11/11)			
MPA established with the participation of the community based on informed decisions			
1.4.1	Management body determined and identified	0 or 1	
Have the members of the management body been determined and identified? <i>The management core group should have been identified (e.g., BFARMC, MFARMC, or PAMB)</i>			<ul style="list-style-type: none"> List of members of PAMB or management body; management structure; appointment papers
1.4.2	MANAGEMENT BODY FORMED AND ROLES CLARIFIED *	0 or 3	
Has the management body been formed and have their roles been clarified?			<ul style="list-style-type: none"> Minutes showing committees Organizational chart with clear roles Enabling documentation (e.g., appointment papers)
1.4.3	BUDGET ALLOCATED FOR AT LEAST ONE YEAR *	0 or 3	
Has the budget for at least one (1) year of MPA implementation been allocated?			<ul style="list-style-type: none"> Approved Work and Financial Plan Document appropriating funds from the General Appropriations Act (for NIPAS seascapes) or from the LGU (for locally-managed MPAs)
1.4.4	IEC activities coordinated by the management body?	0 or 1	
Have Information, Education, and Communication (IEC) activities been coordinated by the management body? Are signboards / billboards posted along the coastline / shoreline and visible to key stakeholders?			<ul style="list-style-type: none"> IEC plan or similar document Minutes showing IEC activities Reports on IEC activities Photographs of billboards / signboards and IEC materials
1.4.5	MPA boundaries delineated	0 or 1	
Are the MPA's boundaries properly delineated in the most appropriate manner and boundary markers installed? <i>When possible, the MPA boundaries should be marked by anchor buoys made with appropriate and sturdy materials. For large areas like NIPAS seascapes, information materials (e.g., banners, billboards, posters) that clearly show the boundaries of the protected area and zones established should be accessible and visible to key stakeholders.</i>			<ul style="list-style-type: none"> Photograph of marker buoys showing status Maps on billboards, banners, posters
1.4.6	MPA enforcers identified	0 or 1	
Have the MPA enforcers already been identified?			<ul style="list-style-type: none"> Document showing names of enforcers (e.g., Bantay Dagat, PNP Maritime Group, Coast Guard, etc.); appointment papers
1.4.7	Biophysical monitoring activities coordinated by the management body	0 or 1	
Are the biophysical monitoring activities coordinated by the management body?			<ul style="list-style-type: none"> Biophysical monitoring report Resolutions approving monitoring activities
TOTAL SCORE FOR LEVEL 1		27	
<i>Thresholds are in BLOCK CAPITALS. Minimum score of 18 points and all Thresholds should have been met to pass this Level.</i>			

LEVEL 2 - MPA MANAGEMENT IS EFFECTIVELY STRENGTHENED (9 Items, 15 Points)				
Criteria / Guide Questions		Allowable Points	Actual Points	Remarks / Means of verification
2.1 The MPA is effectively strengthened (15/15)				
2.1.1	Enforcement plan, or its equivalent, in place	0 or 1		
The MPA should have a clear and feasible enforcement plan				<ul style="list-style-type: none"> Enforcement plan (i.e., schedules, SOP, etc)
2.1.2	Marine enforcement group trained	0 or 1		
Have the marine enforcement team members been trained on enforcement procedures and protocols? (e.g., apprehension, para-legal, use of GPS, safety, etc.)				<ul style="list-style-type: none"> Training report with names of participants Certificate of attendance to training(s) Deputization ID
2.1.3	PATROLLING AND SURVEILLANCE CONDUCTED REGULARLY *	0 or 3		
Are patrolling, surveillance, and other violation detection measures (e.g., watchtowers, radars, community reporting, etc.) being conducted regularly?				<ul style="list-style-type: none"> Attendance of patrollers Patrol logs Back to office reports (after patrols) Mission order
2.1.4	VIOLATIONS DOCUMENTED *	0 or 3		
Are violation reports / apprehensions being documented properly? <i>Even if there are no violations observed, these should be reported as "no observed violations".</i>				<ul style="list-style-type: none"> Back-to-office report of patrol team Logbook of apprehensions / report violations Police blotter
2.1.5	CASES FILED OR VIOLATORS PENALIZED *	0 or 3		
Are cases filed for apprehended violators or are they penalized (e.g., administrative fines)? <i>Violators are at least required to pay administrative fines or other penalties provided for in the ordinance or any enabling law. Confiscation of gears can also serve as a form of sanction as well as undergoing a seminar for first time violators.</i>				<ul style="list-style-type: none"> Case reports Legal documents List of violators penalized Logbooks Record of fines collected List / pictures of gears confiscated
2.1.6	Funds accessed and used	0 or 1		
Allocated funds should have been accessed and used for MPA management. Funds can also come from other sources (e.g., donors, projects, etc.)				<ul style="list-style-type: none"> Expenditure reports Financial statements
2.1.7	Infrastructures maintained	0 or 1		
Are the MPA billboards, boundary markers, anchor buoys, guardhouse, boats, or other infrastructures for MPA management being maintained?				<ul style="list-style-type: none"> Photograph of infrastructures showing their condition Expenditure reports on maintenance of infrastructures
2.1.8	IEC program conducted to sustain public awareness and compliance	0 or 1		
Is the IEC program being implemented to sustain public awareness and compliance?				<ul style="list-style-type: none"> Documentation of IEC activities IEC materials
2.1.9	Participatory biophysical monitoring in the last 3 years	0 or 1		
<i>Biophysical surveys should have been conducted at least in the last three (3) years. Surveys should be properly documented, with the data kept safely for review and updating purposes. For NIPAS seascapes, Biodiversity Monitoring System (BMS) or other monitoring methods should have been done and reported at least over the last three years.</i>				<ul style="list-style-type: none"> Data or report over the last three years
TOTAL SCORE FOR LEVEL 2		15		
<i>Thresholds are in BLOCK CAPITALS. To achieve Level 2, Level 1 requirements must have been passed and a minimum of 11 points obtained from Level 2 with all Thresholds met.</i>				

LEVEL 3 - MPA MANAGEMENT IS EFFECTIVELY SUSTAINED FOR AT LEAST 5 YEARS (11 Items, 21 Points)				
Criteria / Guide Questions		Allowable Points	Actual Points	Remarks / Means of verification
3.1 The MPA management is effectively sustained for at least 5 years (21/21)				
3.1.1	Management plan and ordinance reviewed and updated	0 or 1		
Has the MPA management plan reviewed or updated in response to emerging needs and challenges?				<ul style="list-style-type: none"> • Updated management plan or amendments to the plan • Minutes of meeting that reviewed the plan
3.1.2	FUNDS GENERATED OR ACCESSED FOR LAST 2 YEARS *	0 or 3		
Are financial sources generated or accessed for the last 2 or more consecutive years? (e.g., budget from LGU / IPAF or from external sources)				<ul style="list-style-type: none"> • Audited expenditure report for the last 2 years
3.1.3	Management body able to supervise management activities of the MPA and access technical assistance, if necessary	0 or 1		
Management body is fully functioning and has shown capacity to locate and access technical assistance to improve MPA management and status				<ul style="list-style-type: none"> • Letters with reply from partner for technical assistance • Reports with other partners • Minutes of meetings w/ action points
3.1.4	ENFORCEMENT SYSTEM FULLY OPERATIONAL IN THE LAST FIVE CONSECUTIVE YEARS *	0 or 3		
<i>The enforcement plan is fully implemented. Patrolling activities, violations reporting and apprehension, and sanctioning of violators should have been on-going over the last five years.</i>				<ul style="list-style-type: none"> • Logbook with records of patrolling apprehensions • Annual enforcement reports (for 5 years)
3.1.5	IEC program enhanced	0 or 1		
<i>IEC materials are regularly reproduced or updated and disseminated</i>				<ul style="list-style-type: none"> • IEC Program progress reports (including dissemination details) • Updated IEC materials
3.1.6	PERFORMANCE MONITORING OF THE MANAGEMENT BODY CONDUCTED REGULARLY *	0 or 3		
<i>Performance monitoring of the management body should be done regularly as defined in the management plan or at least every 2 years. Management evaluation tools such as the MPA MEAT can be used to assess management performance.</i>				<ul style="list-style-type: none"> • Performance evaluation reports for the management body
3.1.7	REGULAR PARTICIPATORY MONITORING CONDUCTED *	0 or 3		
<i>Biophysical surveys should have been conducted at least in the last five (5) years. Surveys should be properly documented, with the data kept safely for review and updating purposes. For NIPAS seascapes, the Biodiversity Monitoring System (BMS) should have been reported at least every three years.</i>				<ul style="list-style-type: none"> • Monitoring data showing trends • Attendance sheets showing names of locals who participated in monitoring activities
3.1.8	Socioeconomic monitoring conducted regularly	0 or 1		
<i>"Regular" as defined in the management plan or at least annually. Minimum socioeconomic data which may be used by the management body to adjust management plans & strategies include: income, livelihood activities, population, resource use, fish catch, etc.</i>				<ul style="list-style-type: none"> • Socioeconomic data showing trends
3.1.9	Sustainable financing strategy established	0 or 1		
Is there an internally generated revenue scheme?				<ul style="list-style-type: none"> • Resolution or ordinance imposing fees • Financial guidelines • Private-public partnership agreements
3.1.10	VIOLATORS PROSECUTED AND SANCTIONED *	0 or 3		
Are the prosecution process requirements, if any, satisfied by the MPA management body?				<ul style="list-style-type: none"> • Appearance in court or court decision • Other sanctions implemented
3.1.11	Feedback system in place (for monitoring)	0 or 1		
Is there a feedback system in place?				<ul style="list-style-type: none"> • Minutes of public hearings / presentations
TOTAL SCORE FOR LEVEL 3		21		
<i>Thresholds are in BLOCK CAPITALS. To achieve Level 3, Level 1 & 2 requirements must have been passed and a minimum of 16 points obtained from Level 3 with all Thresholds met.</i>				

LEVEL 4 - MPA MANAGEMENT IS EFFECTIVELY INSTITUTIONALIZED FOR AT LEAST 7 YEARS (11 Items, 21 Points)				
Criteria / Guide Questions		Allowable Points	Actual Points	Remarks / Means of verification
4.1 MPA management effectively institutionalized for at least 7 years (21/21)				
4.1.1	Political support from the provincial council or LGUs	0 or 1		
<i>The Provincial Council (for locally-managed MPAs) or local governments (for NIPAS seascapes) have committed to give the MPA institutional support to strengthen enforcement and collaboration. Political support = budget, manpower, or technical</i>				<ul style="list-style-type: none"> Contracts / MOA / MOU Annual Investment Plan (for NIPAS) SP Resolution committing/providing support
4.1.2	MPA MANAGEMENT PLAN INCORPORATED IN BROADER DEVELOPMENT PLANS *	0 or 3		
<i>The MPA or NIPAS seascape is incorporated within the long-term LGU or provincial development plans (e.g., Comprehensive Land Use Plans, Provincial Development Plans, etc.)</i>				<ul style="list-style-type: none"> Higher level plans where the MPA is integrated
4.1.3	Management body capable of outsourcing funds	0 or 1		
Is the management body able to get funds for the MPA / NIPAS seascape from external sources?				<ul style="list-style-type: none"> Proposals submitted (received copy) Grant agreements entered into by the management body
4.1.4	Coordination with LGUs and other groups clearly defined and formalized	0 or 1		
Is the coordination with appropriate national & local agencies on CRM / MPA policies and with other LGUs achieved? Are the accountabilities and working relationships among collaborating institutions clearly defined and formalized?				<ul style="list-style-type: none"> Memorandum of Agreement Partnership contracts / documents
4.1.5	ECOLOGICAL AND SOCIOECONOMIC IMPACT ASSESSMENT CONDUCTED *	0 or 3		
<i>Assessment of resource status and long-term trends should be conducted together with an assessment of benefits obtained from the MPA by stakeholders. Impacts should also be assessed vis-a-vis the overall objective of the MPA or NIPAS seascape.</i>				<ul style="list-style-type: none"> Trends and temporal assessments of ecological & socio-economic impacts Impact assessment report
4.1.6	PERFORMANCE MONITORING AND EVALUATION SYSTEM LINKED TO AN INCENTIVE SYSTEM *	0 or 3		
<i>Recognition / awards are regularly being given to outstanding members, law enforcers, etc. Incentives can also include granting of available loans or supplementary livelihood opportunities.</i>				<ul style="list-style-type: none"> Awards / Recognition received Announcement of competition / performance incentives
4.1.7	IEC SUSTAINED OVER SEVEN YEARS *	0 or 3		
Has the IEC program for the MPA been sustained over the past seven years?				<ul style="list-style-type: none"> IEC program progress reports for 7 years IEC long-term plan
4.1.8	Management body can adjudicate certain cases	0 or 1		
Does the management body adjudicate administrative cases?				<ul style="list-style-type: none"> Proceedings of adjudications Letters of complaints
4.1.9	Expansion strategies or resource enhancement programs initiated	0 or 1		
<i>MPA coverage or core zones (for local MPAs) expanded. Advance conservation and resource enhancement activities implemented (e.g., coral reef restoration, mangrove reforestation, giant clam restocking, etc.).</i>				<ul style="list-style-type: none"> Reports
4.1.10	Support facilities constructed	0 or 1		
<i>Facilities to support MPA enterprises or improve conservation efforts are constructed (e.g., guardhouse, visitors' center, education / training center, watchtowers, etc.)</i>				<ul style="list-style-type: none"> Photographs of infrastructure
4.1.11	MPA FINANCIALLY SELF-SUSTAINING IN THE LAST SEVEN (7) CONSECUTIVE YEARS *	0 or 3		
<i>Revenues (internally generated and/or obtained from external sources) should be enough to cover operating expenses of the MPA in the last seven (7) years</i>				<ul style="list-style-type: none"> Audited financial report for the last seven years
TOTAL SCORE FOR LEVEL 4		21		
<i>Thresholds are in BLOCK CAPITALS. To achieve Level 4, Levels 1 to 3 requirements must have been passed and a minimum of 16 points obtained from Level 4 with all Thresholds met.</i>				

Summary of MPA MEAT Results

Name of MPA : _____
 Location : _____
 Date accomplished : _____
 MPA level achieved : _____
 Total cumulative score * : _____
 Remarks : _____

MPA Level	Year requirement met?	Total Score Per Level	All threshold questions satisfied?	MPA level satisfied?
1 - Established - At least 1 year - at least 20 Total Cumulative Score - all Level 1 Thresholds met	<input type="checkbox"/> MPA is at least 1 year old		<input type="checkbox"/>	<input type="checkbox"/>
2 - Strengthened - At least 3 years - at least 31 Total Cumulative Score - all Level 1 & 2 Thresholds met	<input type="checkbox"/> MPA is at least 3 years old		<input type="checkbox"/>	<input type="checkbox"/>
3 - Sustained - At least 5 years - at least 47 Total Cumulative Score - all Level 1, 2, & 3 Thresholds met	<input type="checkbox"/> MPA is at least 5 years old		<input type="checkbox"/>	<input type="checkbox"/>
4 - Institutionalized - At least 7 years - at least 63 Total Cumulative Score - all Thresholds met	<input type="checkbox"/> MPA is at least 7 years old		<input type="checkbox"/>	<input type="checkbox"/>
TOTAL CUMULATIVE SCORE		_____ out of 84 points *		

* Total Cumulative Score: <24 points = "Fair"; 25 to 39 = "Good"; 40 to 61 = "Very Good"; 62 to 84 = "Excellent"
 If your MPA does not meet the basic Level 1 category, your MPA is still under the process of establishment. Basic activities should be conducted soon to fully "establish" the MPA and make it operational.

MPA Management Focus (for each focus, add the points for all the questions in the 2nd column below):

Management Focus	Item Numbers in MPA MEAT Form	Total Available Points	Actual Score per Management Focus	Actual Score divide by Total Available Points
Management Plan	1.2.1 + 1.2.2 + 1.2.4 + 3.1.1 + 4.1.2			
Management Body	1.2.3 + 1.4.1 + 1.4.2 + 3.1.3 + 3.1.6 + 4.1.1 + 4.1.4			
Legal Instrument	1.3.1 + 1.3.2 + 1.3.3			
Community Participation	1.1.1 + 1.1.2			
Financing	1.4.3 + 2.1.6 + 3.1.2 + 3.1.9 + 4.1.3 + 4.1.11			
IEC	1.4.4 + 2.1.7 + 2.1.8 + 3.1.5 + 4.1.7			
Enforcement	1.4.5 + 1.4.6 + 2.1.1 + 2.1.2 + 2.1.3 + 2.1.4 + 2.1.5 + 3.1.4 + 3.1.10 + 4.1.8			
Monitoring & Evaluation	1.1.3 + 1.4.7 + 2.1.9 + 3.1.7 + 3.1.8 + 3.1.11 + 4.1.5 + 4.1.6			
Site Development	4.1.9 + 4.1.10			

Developed in partnership with:



The institutionalization of the MPA MEAT is still being processed. In the meantime, you may send your filled-up MPA MEAT forms to the MPA Support Network c/o:

Prof. Porfirio M. Aliño, PhD
The Marine Science Institute
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Quezon City 1101
Philippines
Tel / Fax: +63 2 4331806
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Appendix 4

MPA Maps of the BOBLME countries



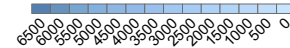
MARINE PROTECTED AREAS - BANGLADESH



Legend

- Bay of Bengal
- Large Marine Ecosystem Boundary
- Administrative Boundary
- Exclusive Economic Zone (EEZ)
- Marine Protected Area (Unknown Boundaries)
- Marine Protected Area (Polygon)
- Coral Reefs
- Seagrass
- Mangroves

Bathymetry (depths in metres)



Data sources:

Exclusive Economic Zone (EEZ): VLIZ (2012) Maritime Boundaries Geodatabase, version 7

Coral Reefs: UNEP-WCMC (2010) Global Distribution of Coral Reefs

Mangroves: Spalding *et. al* (2010) World Atlas of Mangroves

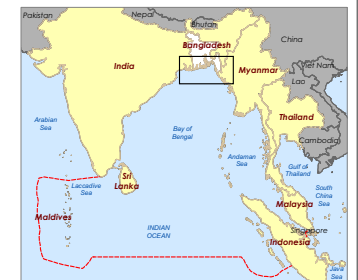
Seagrass: UNEP-WCMC, Short FT (2005) Global distribution of seagrasses.

Bathymetry: The GEBCO_08 Grid, version 20100927, <http://www.gebco.net>

Marine Protected Areas: Compiled from various sources including ReefBase, BOBLME (2011), MoEF (2013), Banglapedia (2013) and WDPA (2013) by WorldFish up to October 2013

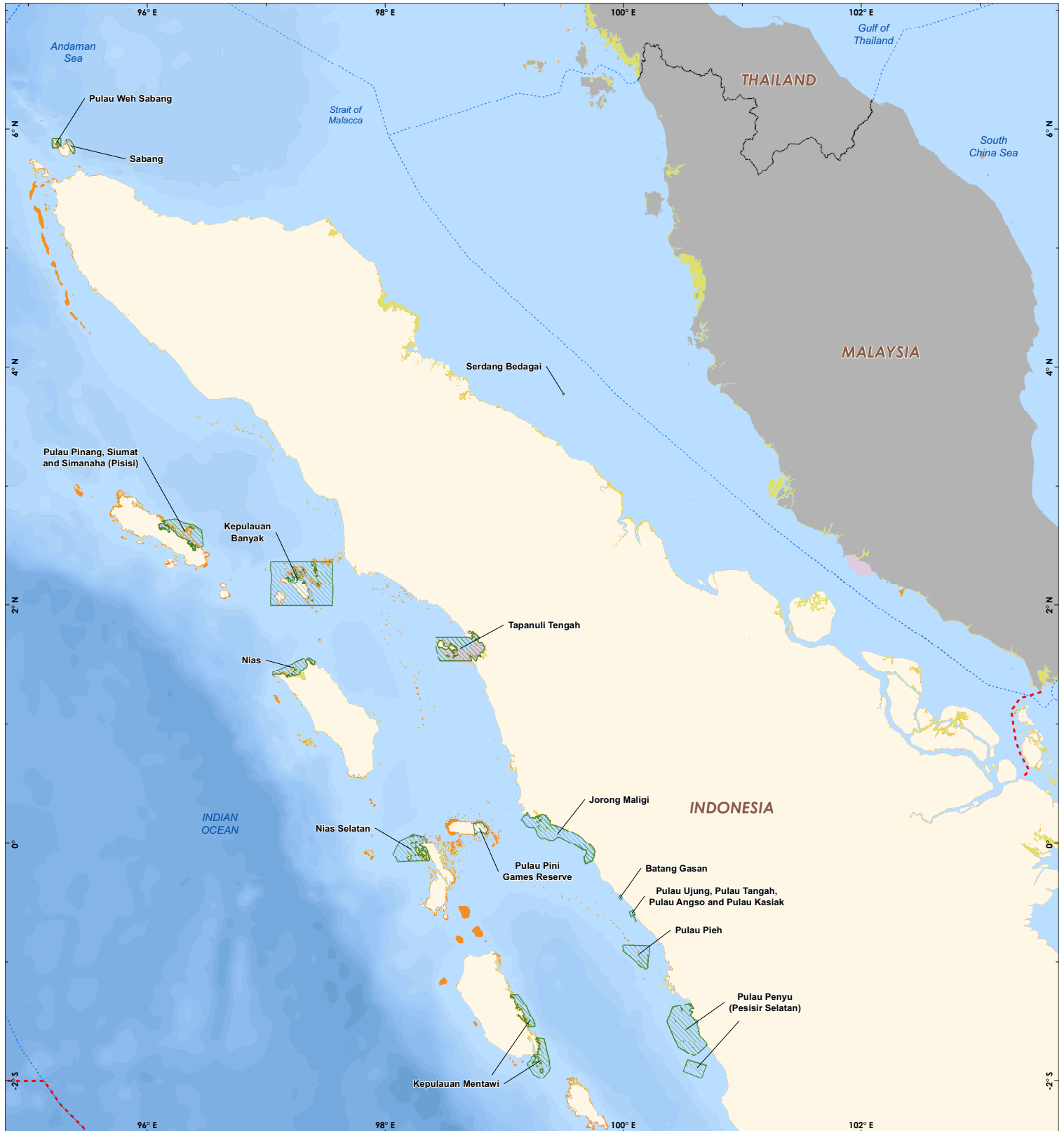


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Datum: WGS 1984





MARINE PROTECTED AREAS - INDONESIA

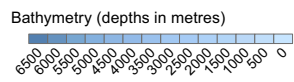


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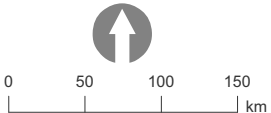
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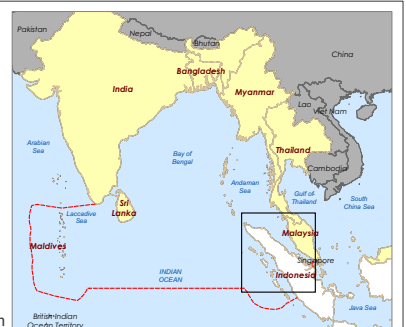
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Data sources:
Exclusive Economic Zone (EEZ): VLIZ (2012) Maritime Boundaries Geodatabase, version 7.
Coral Reefs: UNEP-WCMC (2010) Global Distribution of Coral Reefs
Mangroves: Spalding et. al (2010) World Atlas of Mangroves
Seagrass: UNEP-WCMC, Short FT (2005) Global distribution of seagrasses.
Bathymetry: The GEBCO_08 Grid, version 20100927, <http://www.gebco.net>
Marine Protected Areas: Compiled from various sources including ReefBase, BOBLME (2011), CT Atlas (2013), KKJI (2013) and UPMSI et al. (2002) by WorldFish up to October 2013



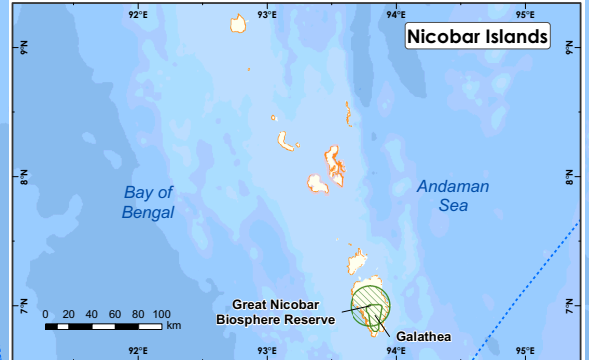
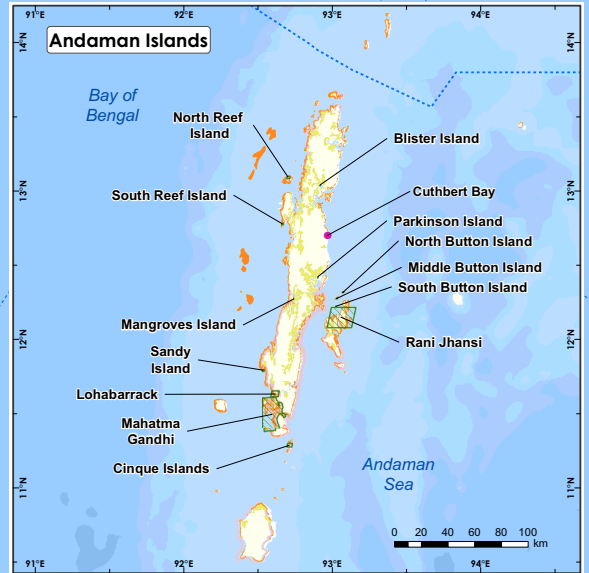
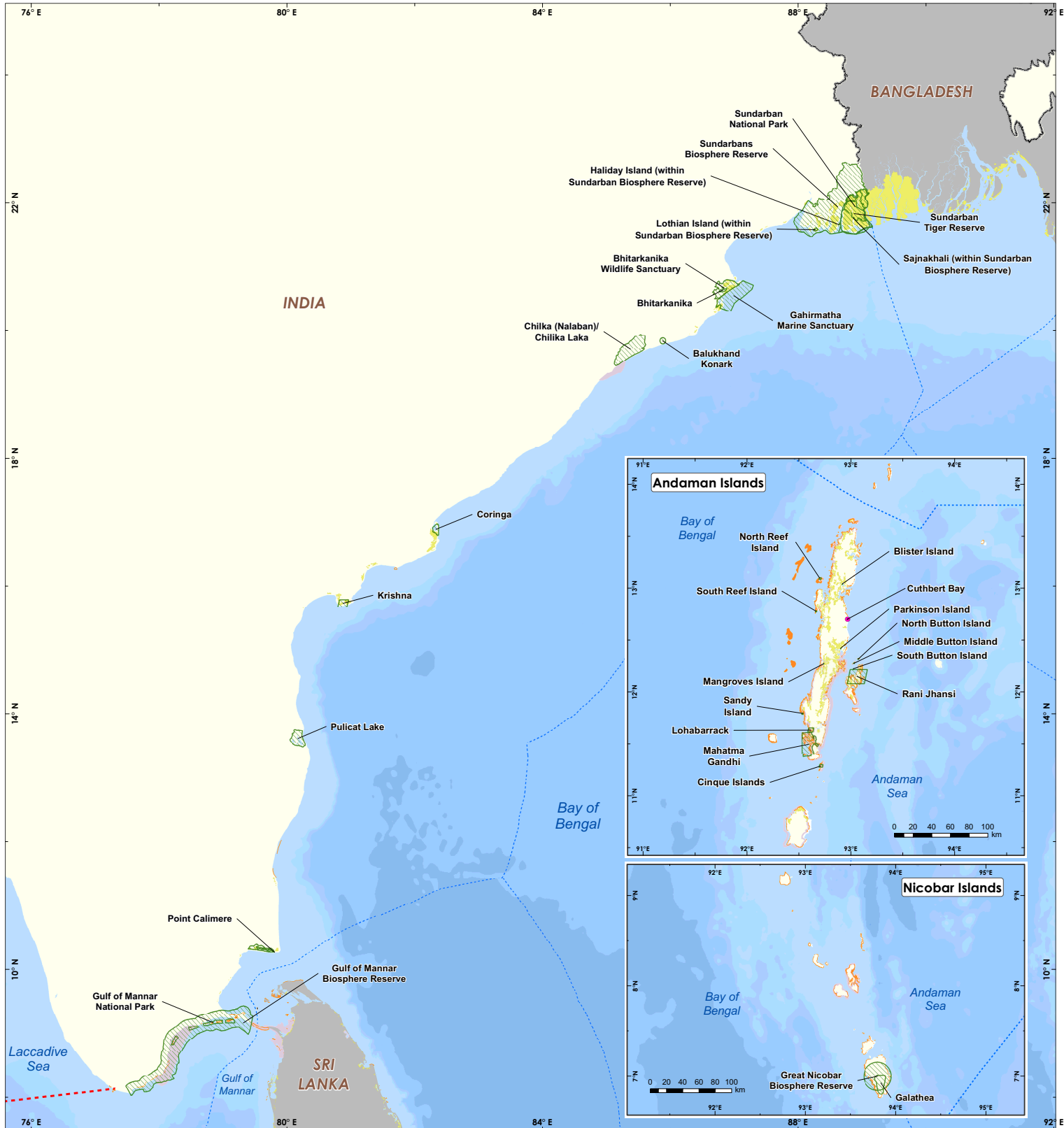
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Date: 04 Feb 2014

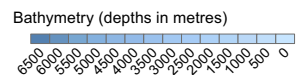


MARINE PROTECTED AREAS - INDIA



Legend

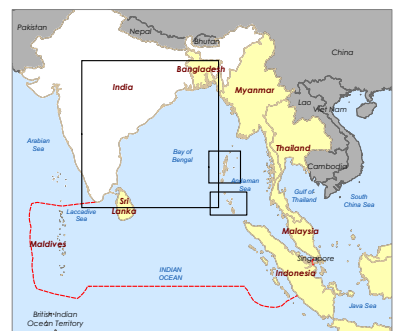
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Exclusive Economic Zone (EEZ) VLIZ (2012) Maritime Boundaries Geodatabase, version 7.
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Bathymetry: The GEBCO_08 Grid, version 20100927, <http://www.gebco.net>
Marine Protected Areas: Compiled from various sources including ReefBase, BOBLME (2011), Singh (2003), WDPA (2013), Burke et al. (2011) and MoEF (2013) by WorldFish up to October 2013



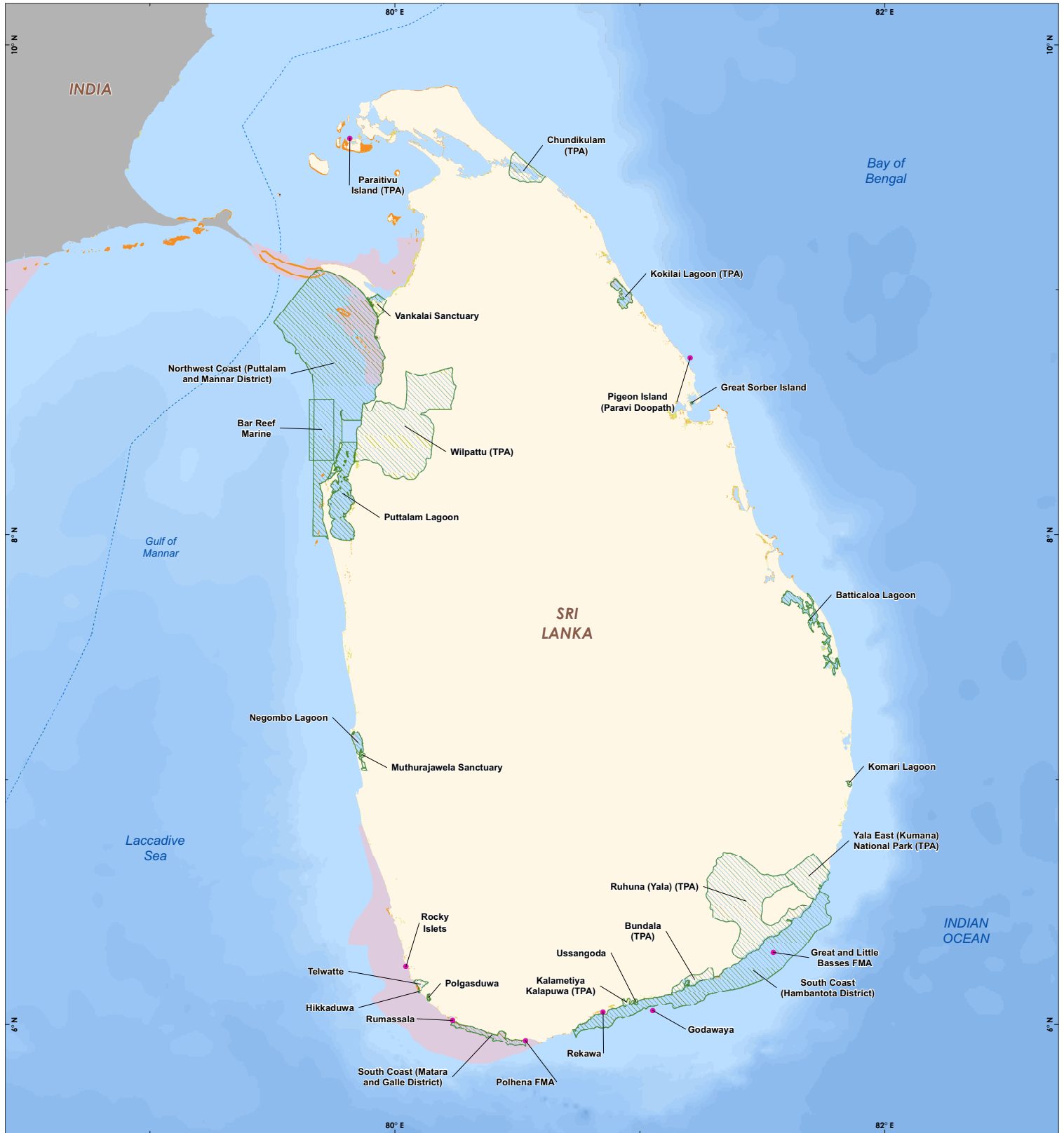
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Date: 04 Feb 2014

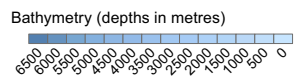


MARINE PROTECTED AREAS - SRI LANKA



Legend

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- - - Large Marine Ecosystem Boundary
- Administrative Boundary
- Exclusive Economic Zone (EEZ)
- Marine Protected Area (Unknown Boundaries)
- Marine Protected Area (Polygon)
- Coral Reefs
- Seagrass
- Mangroves

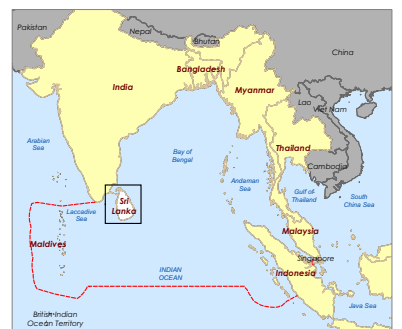


Data sources:
Exclusive Economic Zone (EEZ): VLIZ (2012) Maritime Boundaries Geodatabase, version 7
Coral Reefs: UNEP-WCMC (2010) Global Distribution of Coral Reefs
Mangroves: Spalding et al (2010) World Atlas of Mangroves
Seagrass: UNEP-WCMC, Short FT (2005) - Global distribution of seagrasses
Bathymetry: The GEBCO_08 Grid, version 20100927, <http://www.gebco.net>
Marine Protected Areas: Compiled from various sources including ReefBase, BOBLME (2011), RAMSAR (2011) and WDPA (2013) by WorldFish up to October 2013



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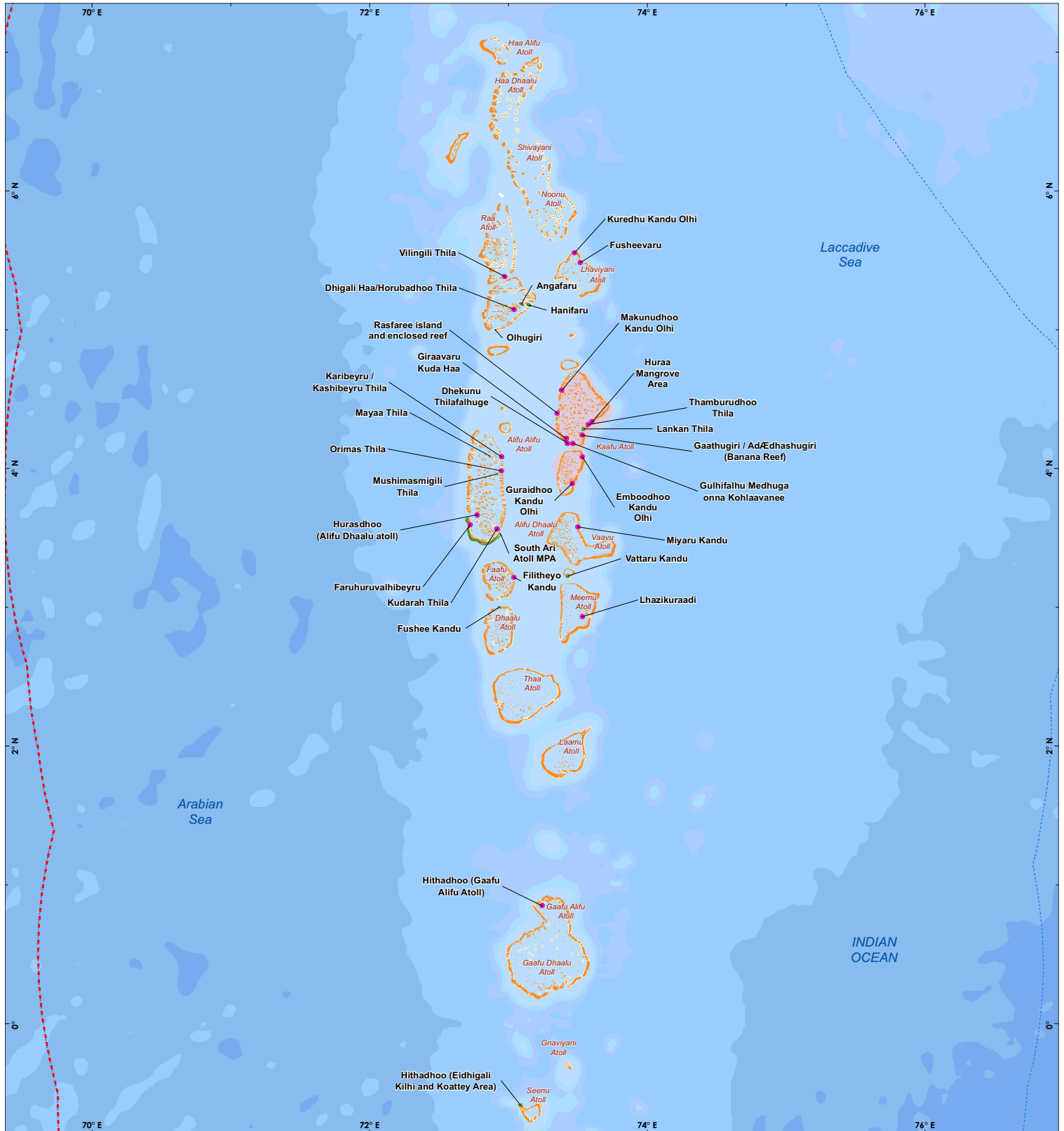
Coordinate System: GCS WGS 1984
 Datum: WGS 1984



Date: 07 Feb 2014



MARINE PROTECTED AREAS - MALDIVES



Legend

- Bay of Bengal
- Large Marine Ecosystem Boundary
- Administrative Boundary
- Exclusive Economic Zone (EEZ)

- Marine Protected Area (Unknown Boundaries)
- Marine Protected Area (Polygon)
- Coral Reefs
- Seagrass
- Mangroves

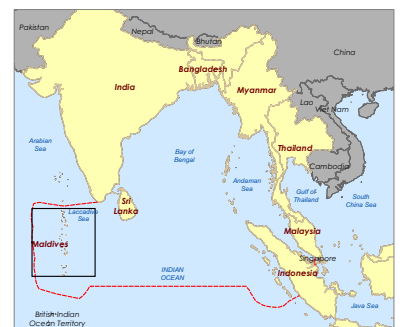
Bathymetry (depths in metres)



Data sources:
Exclusive Economic Zone (EEZ) Vliz (2012) Maritime Boundaries Geodatabase, version 7.
Coral Reefs: UNEP-WCMC (2010) Global Distribution of Coral Reefs
Mangroves: Spalding et al (2010) World Atlas of Mangroves
Seagrass: UNEP-WCMC, Short FT (2005) Global distribution of seagrasses
Bathymetry: The GEBCO_08 Grid, version 20100927, <http://www.gebco.net>
Marine Protected Areas: Compiled from various sources including ReefBase, BOBLME (2011) and EPA (2013) by WorldFish up to October 2013



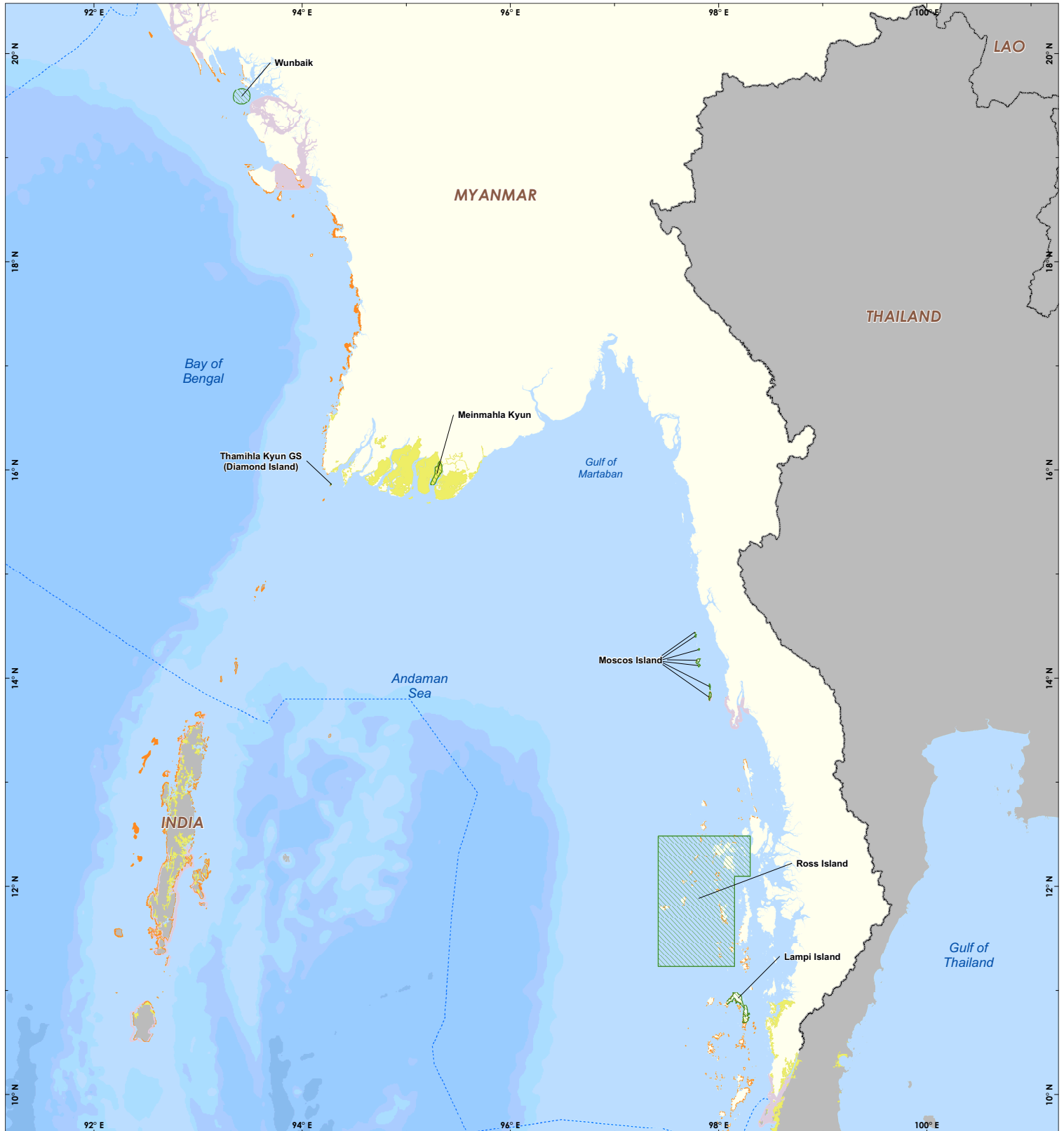
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 Coordinate System: GCS WGS 1984
 Datum: WGS 1984



Date: 04 Feb 2014



MARINE PROTECTED AREAS - MYANMAR



Legend

- - - Bay of Bengal
- - - Large Marine Ecosystem Boundary
- Administrative Boundary
- Exclusive Economic Zone (EEZ)
- Marine Protected Area (Unknown Boundaries)
- Marine Protected Area (Polygon)
- Coral Reefs
- Seagrass
- Mangroves

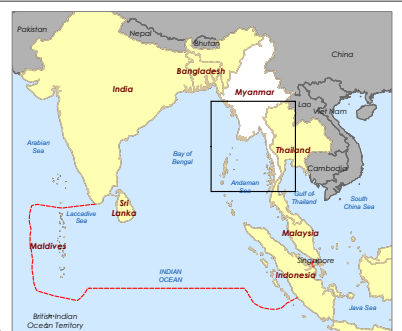
Bathymetry (depths in metres)



Data sources:
Exclusive Economic Zone (EEZ): VLIZ (2012). Maritime Boundaries Geodatabase, version 7
Coral Reefs: UNEP-WCMC (2010) Global Distribution of Coral Reefs
Mangroves: Spalding et al (2010) World Atlas of Mangroves
Seagrass: UNEP-WCMC, Short FT (2005) Global distribution of seagrasses
Bathymetry: The GEBCO_08 Grid, version 20100927, <http://www.gebco.net>
Marine Protected Areas: Compiled from various sources including ReefBase, BOBLME (2011), UPMSI et al. (2002) and WDPA (2013) by WorldFish up to October 2013



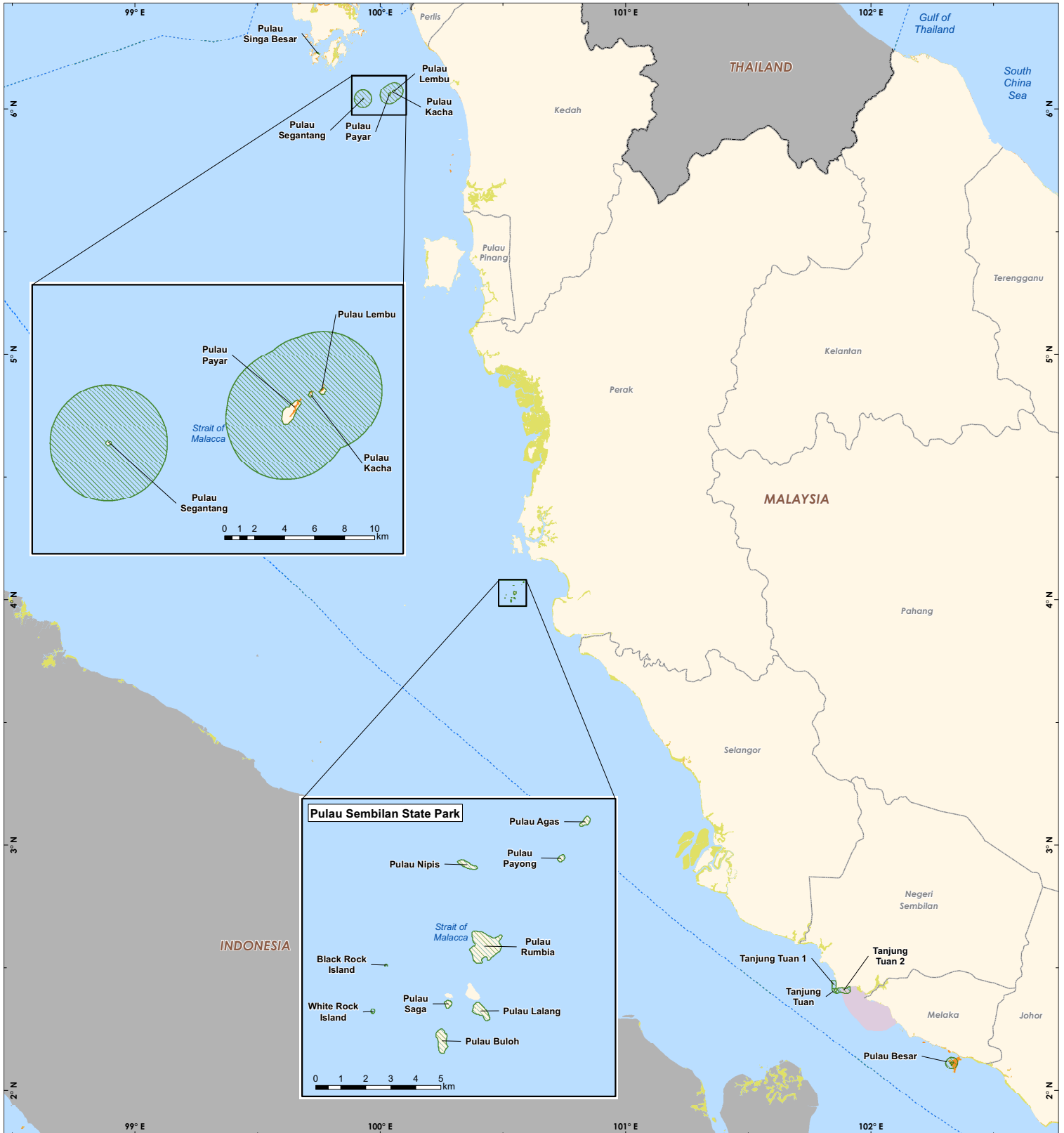
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Date: 04 Feb 2014

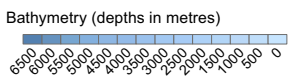


MARINE PROTECTED AREAS - MALAYSIA



Legend

- - - Bay of Bengal
- - - Large Marine Ecosystem Boundary
- Administrative Boundary
- State Boundary
- - - - - Exclusive Economic Zone (EEZ)
- Marine Protected Area (Unknown Boundaries)
- Marine Protected Area (Polygon)
- Coral Reefs
- Seagrass
- Mangroves

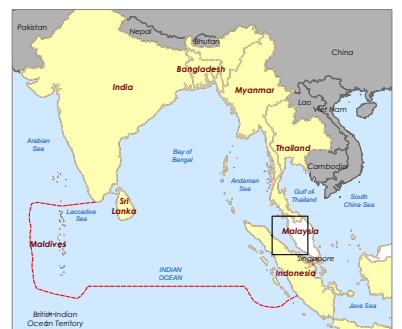


Data sources:
Exclusive Economic Zone (EEZ): VLIZ (2012) Maritime Boundaries Geodatabase, version 7
Coral Reefs: UNEP-WCMC (2010) Global Distribution of Coral Reefs
Mangroves: Spalding et al. (2010) World Atlas of Mangroves
Seagrass: UNEP-WCMC, Short FT (2005) Global distribution of seagrasses
Bathymetry: The GEBCO_08 Grid, version 20100927, <http://www.gebco.net>
Marine Protected Areas: Compiled from various sources including ReefBase, BOBLME (2011), CT Atlas (2013), DMPM (2012), FRI (2013), WWF (2013), UPMSI et al. (2002) by WorldFish up to October 2013



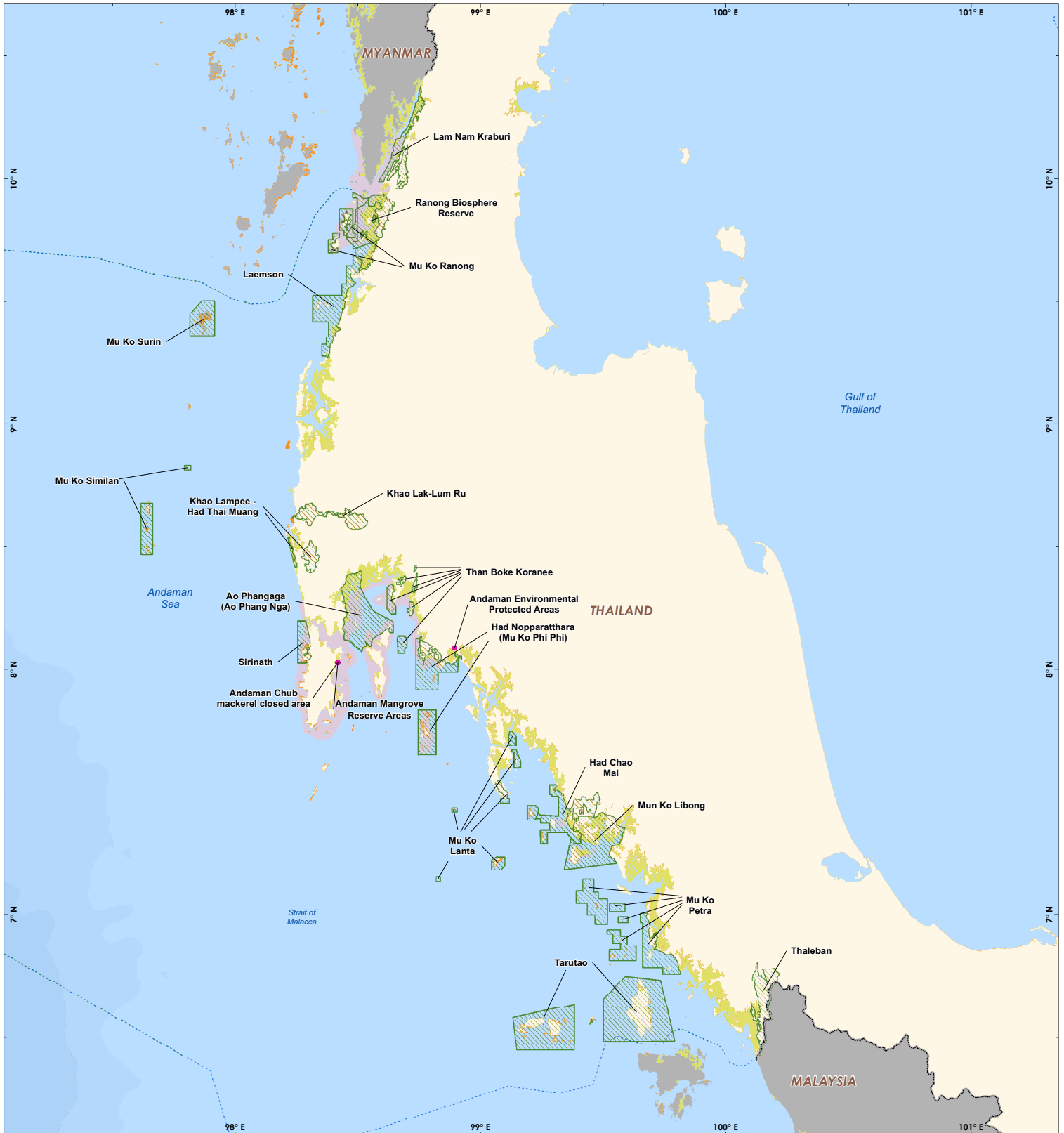
0 10 20 30 40 50
km

Coordinate System: GCS WGS 1984
Datum: WGS 1984





MARINE PROTECTED AREAS - THAILAND



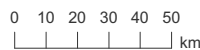
Legend

- Bay of Bengal
- Large Marine Ecosystem Boundary
- Administrative Boundary
- Exclusive Economic Zone (EEZ)
- Marine Protected Area (Unknown Boundaries)
- Marine Protected Area (Polygon)
- Coral Reefs
- Seagrass
- Mangroves

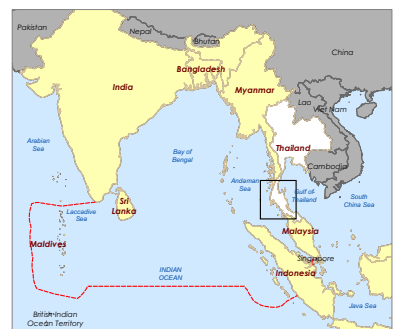
Bathymetry (depths in metres)



Data sources:
Exclusive Economic Zone (EEZ): VLIZ (2012) Maritime Boundaries Geodatabase, version 7
Coral Reefs: UNEP-WCMC (2010) Global Distribution of Coral Reefs
Mangroves: Spalding et. al (2010) World Atlas of Mangroves
Seagrass: UNEP-WCMC, Short FT (2005) Global distribution of seagrasses.
Bathymetry: The GEBCO_08 Grid, version 20100927, <http://www.gebco.net>
Marine Protected Areas: Compiled from various sources including ReefBase, BOBLME (2011), Phongsuwan (2012) and WDPA (2013) by WorldFish up to October 2013



Coordinate System: GCS WGS 1984
 Datum: WGS 1984



Date: 04 Feb 2014

Appendix 5

Thailand's Marine Protected Areas

MPAs are critical to ecological integrity and human well-being

Thailand's Andaman Sea coastline is renowned for its rich ecological diversity which includes mangroves, seagrass beds, fringing coral reefs and sandy beach. It is home to many globally threatened species including dugong, dolphins, and sea turtles. These resources and habitats provide support for the fishing and tourism industries, and provide shoreline protection to millions of people.

Yet these valuable resources are undergoing threat from overfishing, destructive fishing practices, sedimentation, pollution, habitat destruction, coastal erosion and climate change. Marine protected areas (MPAs) provide a critical means of ensuring the long-term sustainability of these resources and socio-economic benefits underpinning human well-being.

Marine Resources Provide Valuable Ecosystem Services

The marine resources along Thailand's western coast provide a wealth of fisheries and tourism-related services that directly benefit coastal communities and the national economy. One third of the nation's fisheries, which contribute USD \$1.57 billion to the gross domestic product, are from the Andaman Sea. Seafood provides national food security, accounting for more than 50% of annual protein intake across the country. The MPAs along the Andaman coast are considered some of the best diving sites in the world with approximately 10 million visitors, both local and foreign, each year. These MPAs have tremendous economic value. For example, the coral reefs at the Phi Phi Islands National Park generate benefits to tourism estimated at USD \$500 million annually.

Multiple Regulations Support A Growing Network of MPAs

Conservation of Thailand's marine resources dates back to the 1960s when the first national park was established. Since then, 21 MPAs have been established in the form of national parks, non-hunting areas, fisheries sanctuaries, Environmental protected area, fisheries refugia, mangrove reserve areas, and biosphere reserves. There have also been efforts to expand the current MPA system to cover a large portion of Thailand's Andaman Exclusive Economic Zone of 120,812.12 square kilometers, through nomination to the Marine Protected Areas Network and World Heritage. Given the complexities in managing a network of MPAs, local government authorities and key stakeholders are increasingly involved in site level

Thailand's Andaman Sea coastline features

- 120,812.12 square kilometer exclusive economic zone (EEZ)
- 1,093 kilometers of coastline
- 21 formal marine protected areas covering 5,810 square kilometers (5% of EEZ)
- 300 hard coral species, 11 seagrass species, 30 mangrove species
- 1,767.83 square kilometers of mangrove area, 137.76 square kilometers of seagrass area, 105.24 square kilometers of coral reef area

MPAs face serious challenges

Though recent years have seen notable improvements in the management of marine protected areas, challenges remain.

Human impacts cause the degradation and depletion of natural resources

- Overfishing and the use of destructive fishing methods (trawling, push net, aquarium animal trade), threaten 60% of coral reefs in the country.
- The direct discharge of chemical fertilizers, insecticides, and untreated wastewater from agricultural production and shrimp farms into coastal waterways pollute coastal habitats.
- Insufficient sewage treatment facilities for coastal development that is intensified by tourism sector cause deterioration of near-shore marine habitat.
- Clearing mangrove forests for aquaculture ponds, resource extraction activities, and dredging increases siltation and subsequently smothers coastal habitats.
- Coastal structure development (such as bridge, jetty) cause for coastal erosion and change marine habitat.

Poor MPA governance limits effectiveness

- Without direct incentives, technical knowledge, and financial support, there is generally weak institutional and stakeholder capacity to manage natural resources.
- Lack of resources limit effective law enforcement.
- Participatory approaches are limited, and conflicts persist among stakeholders' traditional resource uses and conservation priorities.
- Jurisdictions among the authorities responsible for parks, fisheries, harbors and coastal tourism development overlap and are ambiguous.
- Laws affecting marine protected areas are unclear, and existing regulations for marine resource management are complex, making enforcement particularly challenging.

Recommendations for improving MPAs

The following actions respond to the challenges highlighted above and aim to ensure ecosystem health while meeting the needs of coastal communities.

- Develop a streamlined legal and institutional framework for a cohesive national protected area system.
- Establish formal multi-stakeholder consultation and information sharing mechanisms.
- Promote sustainable use of resources through incentive-based approaches that generate compliance.
- Strengthen law enforcement through efficient multi-agency collaboration and provision of appropriate penalties to enable managers to effectively regulate their MPAs.
- Monitor biological and socio-economic conditions to enable adaptive management strategies.
- Establish a new MPAs or develop MPAs use international guidelines : IUCN, CBD
-





Bangladesh, India, Indonesia, Malaysia, Maldives, Myanmar, Sri Lanka and Thailand are working together through the Bay of Bengal Large Marine Ecosystem (BOBLME) Project and to lay the foundations for a coordinated programme of action designed to improve the lives of the coastal populations through improved regional management of the Bay of Bengal environment and its fisheries.

The Food and Agriculture Organization (FAO) is the implementing agency for the BOBLME Project.

The Project is funded principally by the Global Environment Facility (GEF), Norway, the Swedish International Development Cooperation Agency, the FAO, and the National Oceanic and Atmospheric Administration of the USA.

For more information, please visit www.boblme.org



Norad

