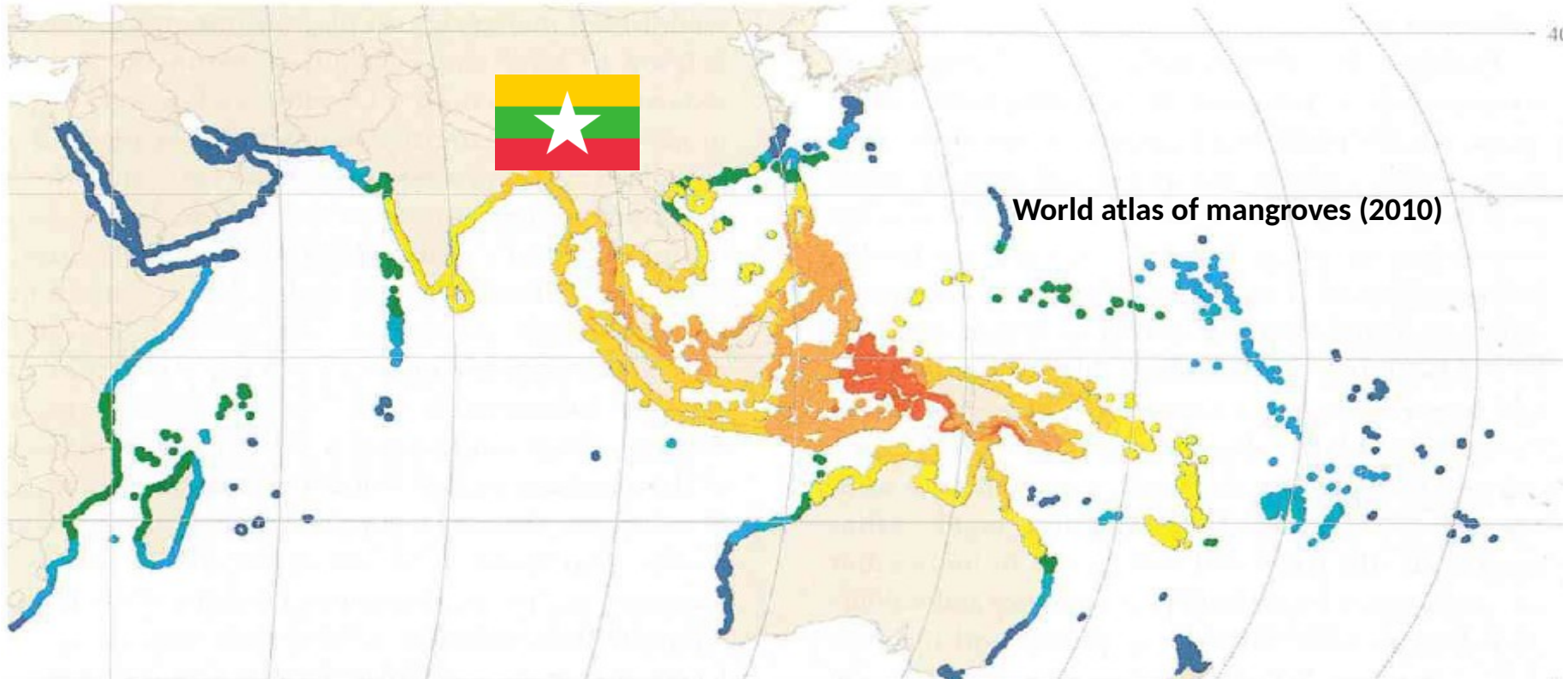




## INTERNATIONAL CONFERENCE ON SUSTAINABLE MANGROVE ECOSYSTEMS 18-21 April 2017, Bali, Indonesia

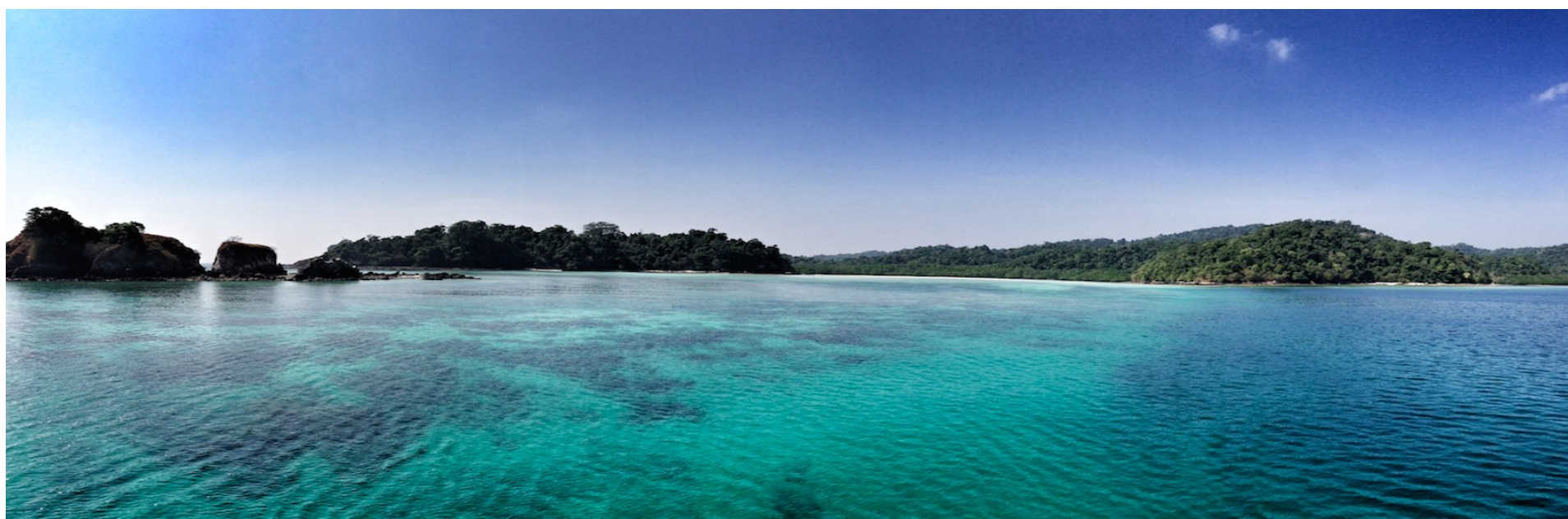


## Conservation and Management of Mangrove Ecosystems in Myanmar

Forest Department  
Ministry of Natural Resources and Environmental Conservation

# Presentation Outlines

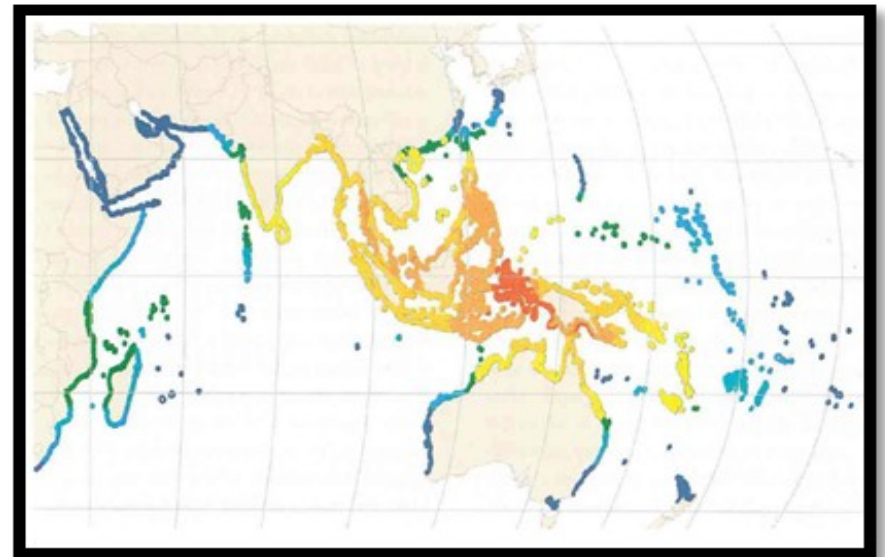
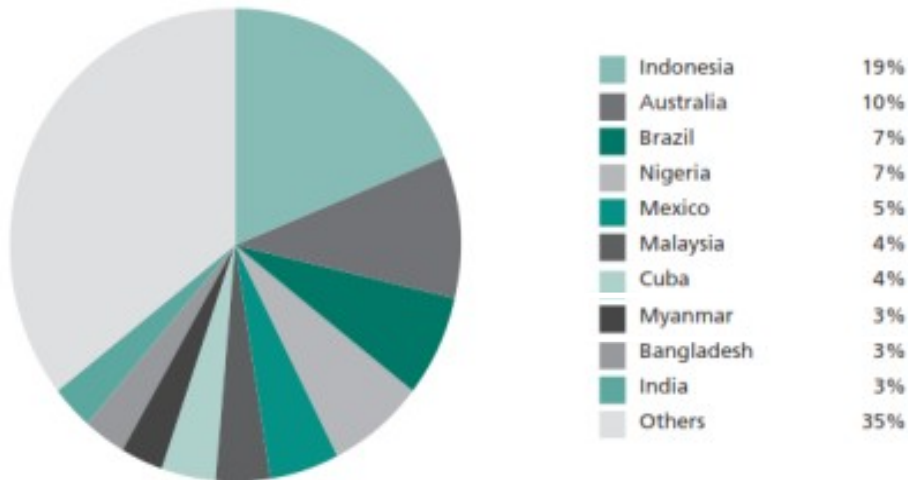
- Introduction
- Policies and Legal Frameworks
- Initiatives to Achieve International Commitments
- Key Problems, Solutions, and Recommended Actions
- The Way Forward



# Mangroves in Myanmar

Seventh/Eighth largest extent of mangroves worldwide and third in the ASEAN Region

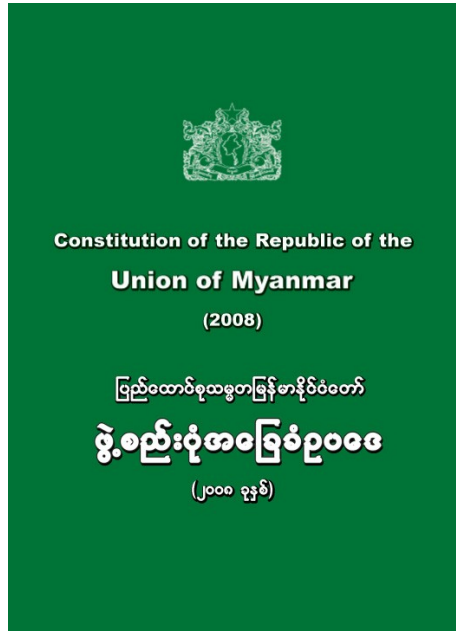
- 502,911 hectares/1,242,190 acres along 2832 km coastline
- 34 true mangrove species
- 148 true plus associate mangrove species



World mangrove atlas (2010)/The World's Mangroves (2007)/Mangrove Guidebook for Southeast Asia (2006)

# Legal Frameworks that cover mangrove conservation and management

## State Constitution (2008)



- Article 45: The **state** shall **protect** natural environment of the country
- Article 390: It shall be the **duty of every citizen** of Myanmar to **protect the natural environment**

- **Forest Policy (1995)**
- **Forest Law (1992)**
- **Forest Rules (1995)**
- **Protection of Wildlife & Wild Plants & Conservation of Natural Areas Law (1994) and Rules (2002)**

ပြည်ထောင်စုမြန်မာနိုင်ငံတော်  
နိုင်ငံတော်ပြန်လည်ထူထောင်ရေးအဖွဲ့  
THE UNION OF MYANMAR  
THE STATE LAW AND ORDER RESTORATION COUNCIL

သစ်တောဥပဒေ  
Forest Law

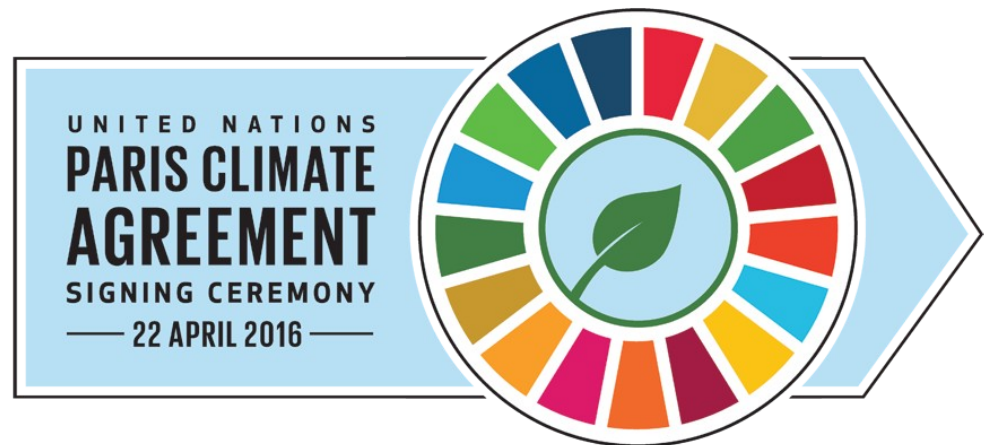
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(3<sup>rd</sup> November, 1992)



# International Commitments in relation to Mangroves



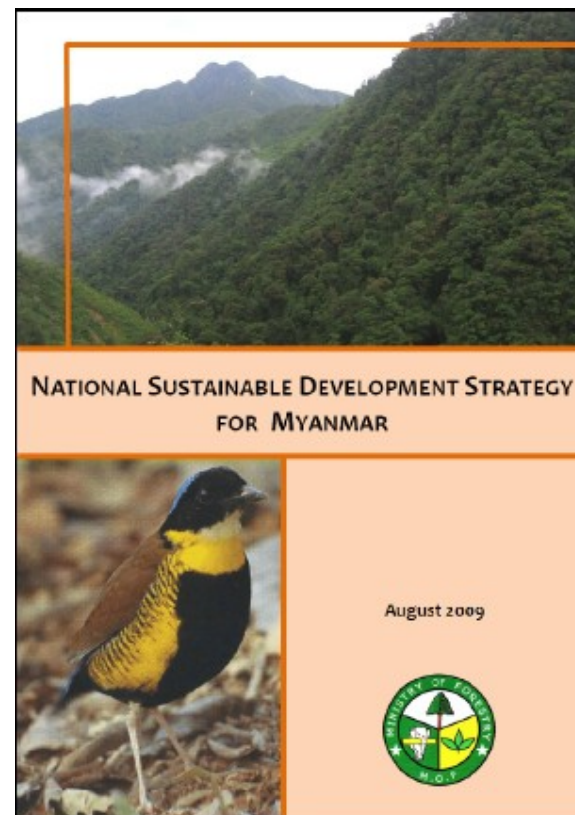
- SDG
- Paris Agreement



# Supporting Activities to SDG 14 - Life on Ocean



CONSERVE AND SUSTAINABLY USE THE  
OCEANS, SEAS AND MARINE RESOURCES  
FOR SUSTAINABLE DEVELOPMENT



## 3.1.6 Sustainable Management of Coastal, Marine and Island Ecosystems (Environmental perspective)

# Initiative of High-level Platform for mangrove and coastal resource management

- ❑ **National Coastal Resources Management Central Committee** was formed in 2016 recently, led by Vice President
- ❑ A total of 19 members composed of Union Ministers, Permanent Secretaries, Director Generals from Relevant Ministries, Navy Chief and Chief Ministers from Coastal Regions and States



# Rehabilitation and Restoration Measures

## Myanmar Reforestation and Rehabilitation Programme 2017-18 to 2026-27

- Support to increase mangrove cover status

No	State/ Region	Planned to Establish by MRRP
1.	Ayeyarwady	28000
2.	Tanintharyi	460
3.	Rakhine	1230
		29690



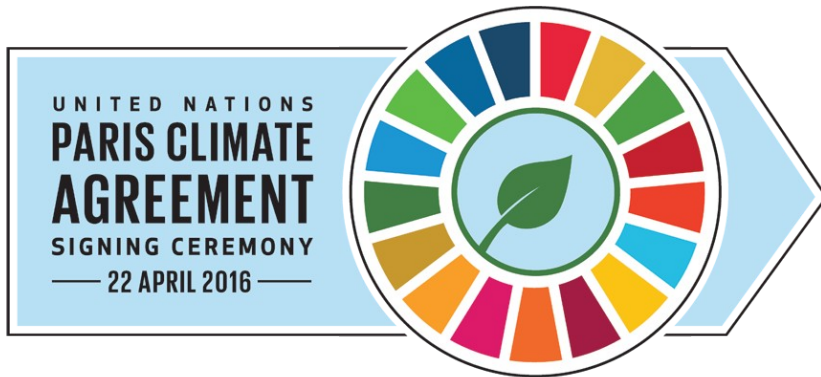
- Now confirmed in restoring 3080 acres for this year 2017-18 by national capital, but need to ensure the following years until 2027



# Paris Agreement on 22 April 2016 in New York

By 2030, NDC – Nationally Determined Contribution

- Myanmar's Permanent Forest Estate is to increase **Reserved Forests/Protected Public Forests 30 %** and **Protected area systems 10 %** of national total land area



# National Target of Reserved Forests and Protected Public Forests in Mangrove Areas

- Since 1896, mangroves managed as Protective Public Forests/ Reserved Forests
  - Until now, a total of (22) Mangrove Reserved Forests approximately (628, 172.21 acres)
- (8) Reserved forests representing (53,528) acres of mangroves have been just recently- constituted and notified as protected public forests in Tanintharyi Coastal Region since 2011

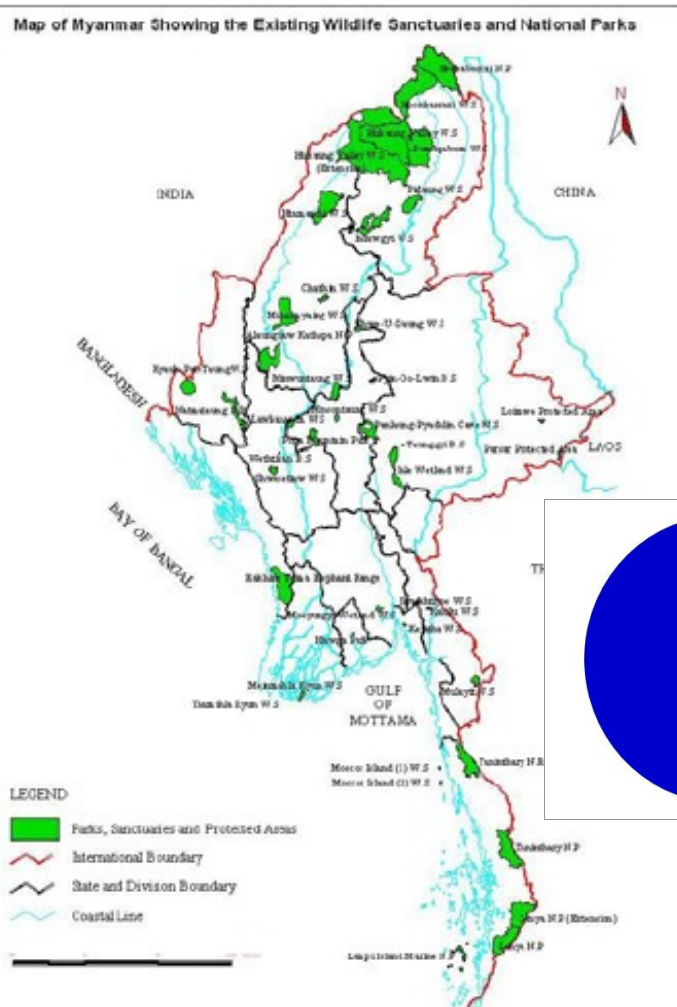


*B. gymnorrhiza* community

To fulfill 30 % of permanent forest estate as per committed in Paris Agreement in order to avoid land-use change

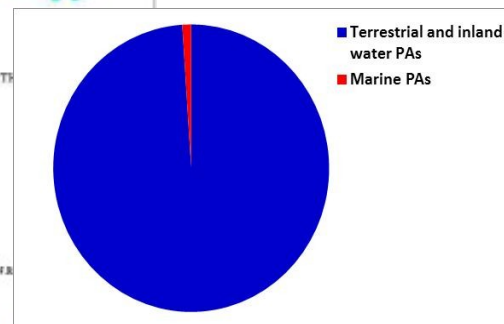


# National Target of Marine Protected Areas including Mangroves



PAS targets 10% in long run of the total land area  
in terms of Paris Agreement

Protected Areas	Area of extent (Acre)
4	96, 771.2



MPA 1.03 %



height: 33.5 m, *R. mucronata* community

To fulfill 10 % of protected area system as per committed in Paris Agreement in order to conserve biodiversity and maintain coastal protection function

# Major Issues on Mangrove Conservation and Management

Region	Remaining Percentage in 2030 from 2000 (NASA,2014)
Western Coastline	40 %
<b>Ayeyarwady Delta</b>	<b>16 %</b>
Southern Coastline	86 %
Total	56 %

- Village settlement
- Rice fields
- Fuel woods
- Charcoal production
- Shrimp ponds





# Mangrove Cover Change in the Ayeyarwady Delta of Myanmar

- One of the most Populated Region
- Even tigers inhabited in the past

1990 Mangrove Cover in the Ayeyarwady



Current status of Mangrove Cover in the Ayeyarwady





# Why these issues have happened since half of a century ago?

- **No Land-use Policy and Laws**

(Vulnerable to landuse change)

- **Insufficient Energy Supply**

(Rely Largely on wood-based energy)

- **Limited Job Opportunity**

(Rely solely on mangrove products)

- **Weak Capacity and Institutional Arrangement**

(Limited actions for controlling illegal activities)

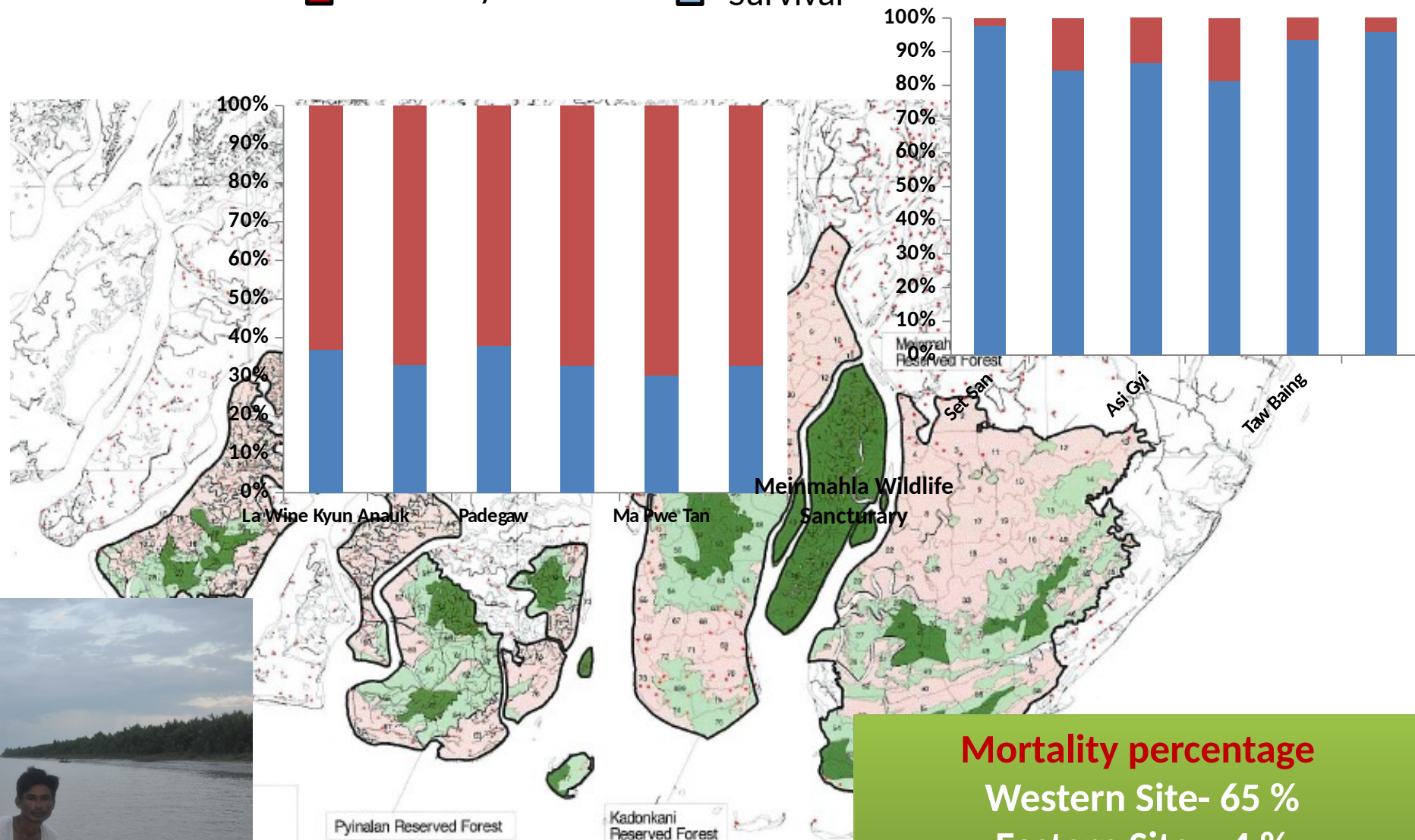




# Increasing Awareness - A true story left among the public about the National Park after Cyclone Nargis 2008

■ Mortality

■ Survival



# Possible Actions to Address Key Problems

Key Problems	Key Actions
Village settlement	Strong Land-use Policy, law, rules and regulation, <b>law enforcement</b>
Rice fields	Similar actions above/Awareness raising especially for decision-maker levels/Restoration in abandoned rice fields
Fuel woods	<b>Community Forestry plantations</b> /Village-owned plantations/ Distribution of efficient energy stoves/Introduction of alternative energy (gas, electricity, animal waste, agricultural residues and so on)
Charcoal production	<b>Private sector engagement</b> in sustainable production forestry for charcoal making that also encourage to conserve natural areas and create job opportunities for local people who rely mainly on mangrove products as fuel woods/ Similar to above actions in addressing cutting fuel-wood like providing alternative energy
Shrimp ponds	Technology supports/Coordinated platform for fishery and forestry sectors/Awareness raising especially for decision-maker levels and shrimp pond owners and business communities who encroach illegal activities of shrimp ponds/Restoration on abandoned ponds/Law enforcement



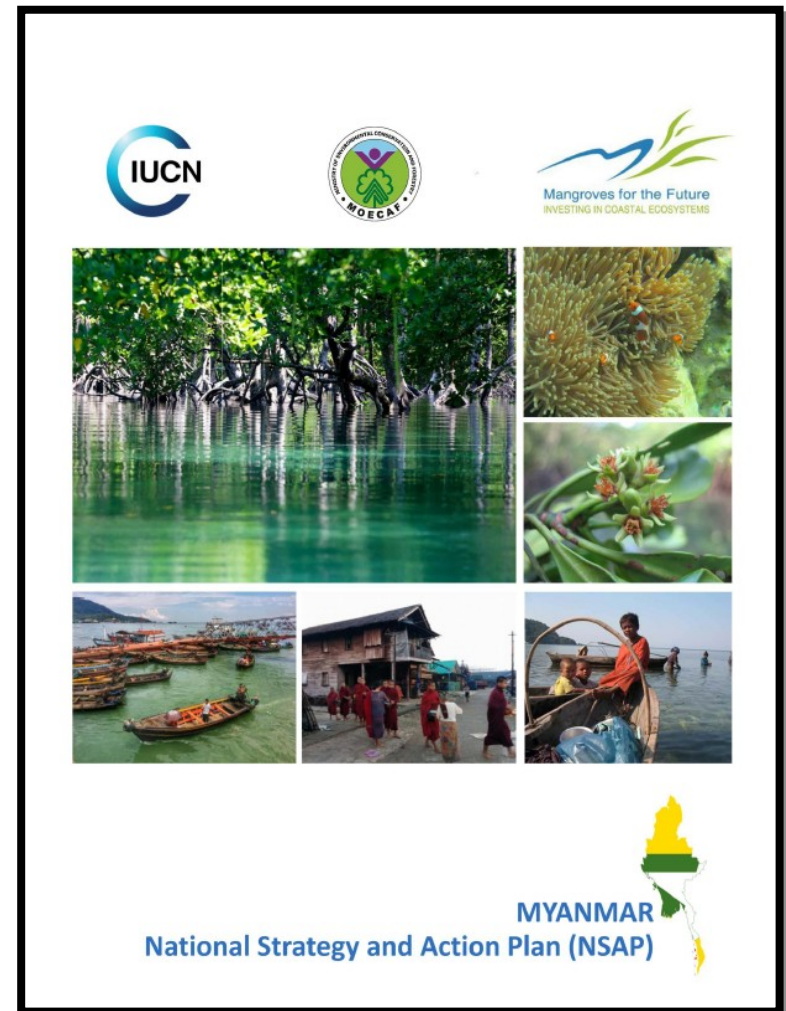
# Five Priorities Recommended in National Strategy and Action Plan

## Priorities for Intervention

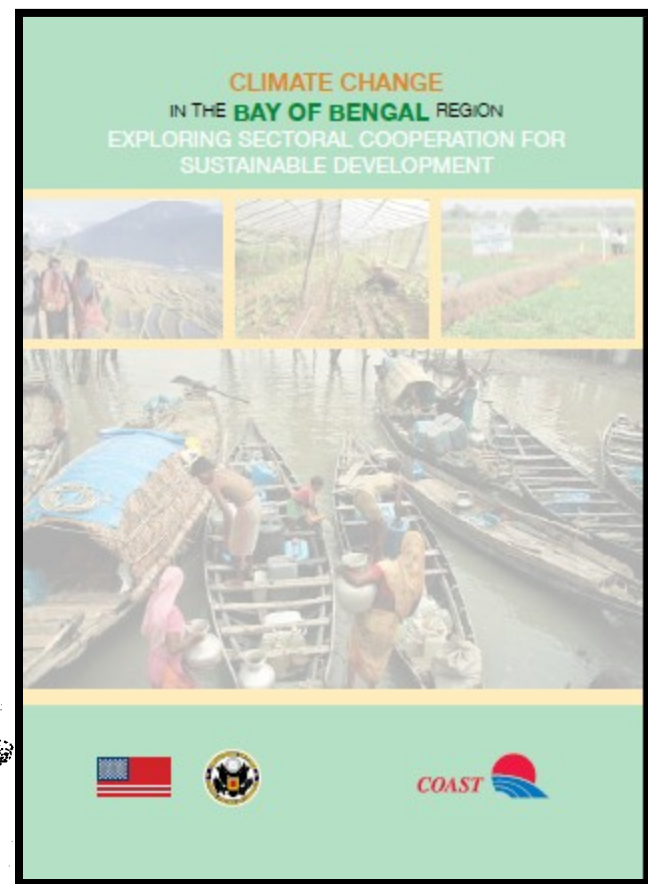
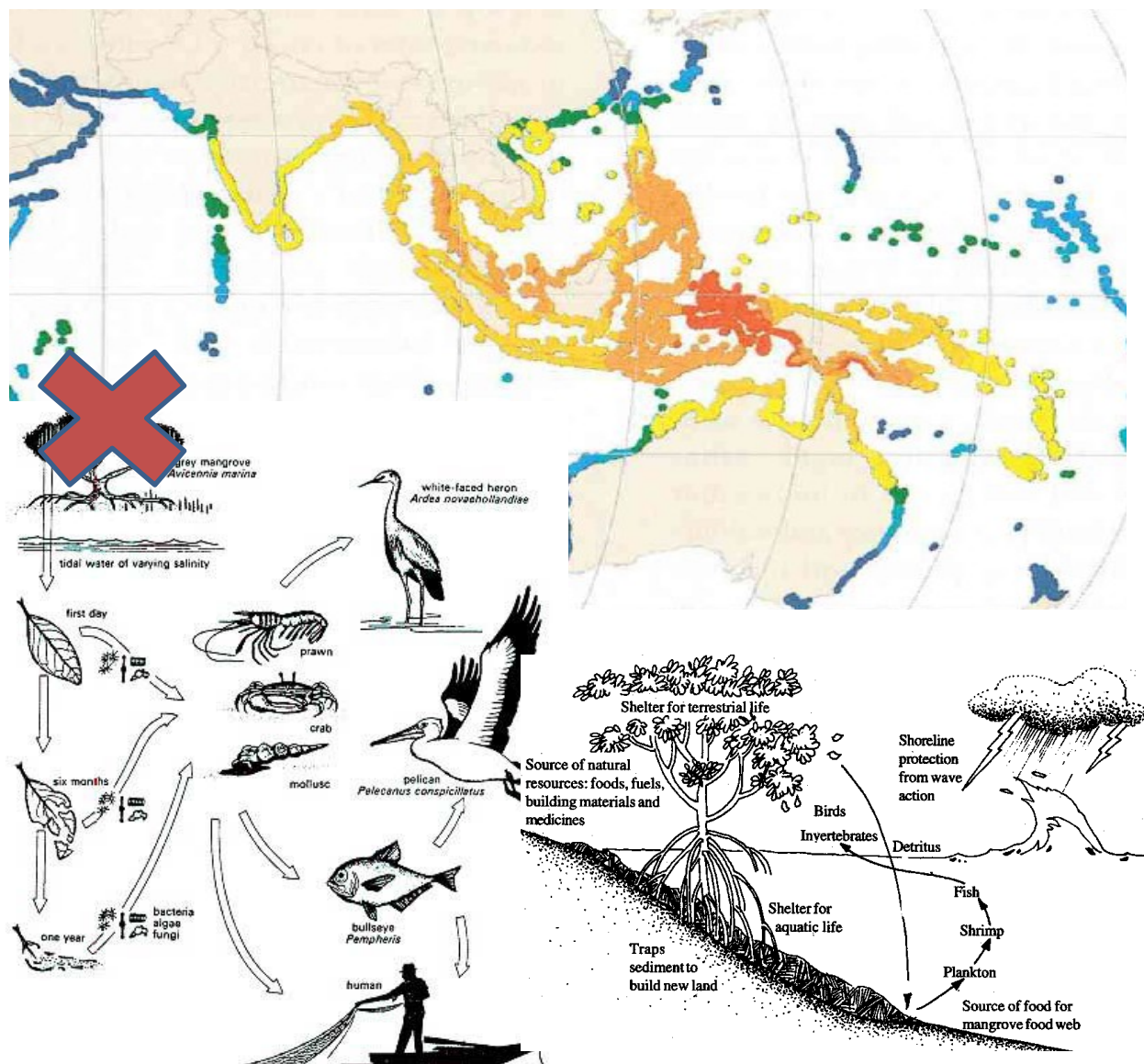
- 1) Environmental Profiling
- 2) Capacity Development
- 3) ICM Policy and Strategy Development
- 4) Civil Society Engagement  
in Conservation
- 5) Marine Protected Areas

### Cross-cutting Issues

- 1) Knowledge Management and Communication
- 2) Climate Change
- 3) Community Resilience
- 4) Gender Equality
- 5) Private Sector Partnership

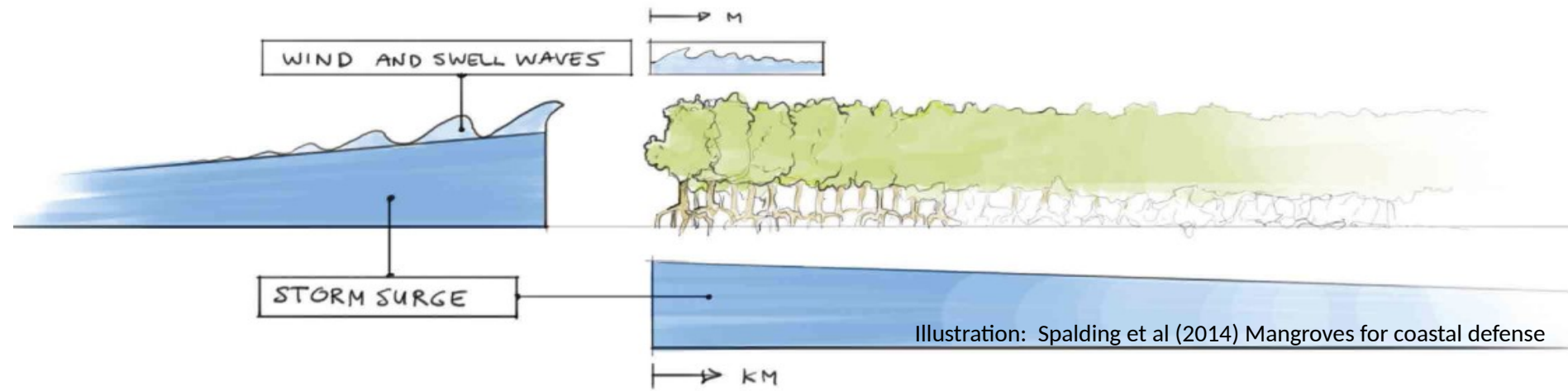


# Recently published: “A coast without mangroves: Lessons on climate change mitigation and coastal protection” Aung and Conor Macdonnell (2016), COAST



## A Region Without Mangroves?





- PES**- Payment for Ecosystem Services as Coastal Protection Function could be one of the best approaches to convince local people participation



# Thank you very much for all your attention!

Then, special thanks to ITTO for financial support and the organizers MoEF and ISME



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