

The Practices and Challenges of Managing the Lower Kinabatangan- Segama Wetlands Ramsar Site

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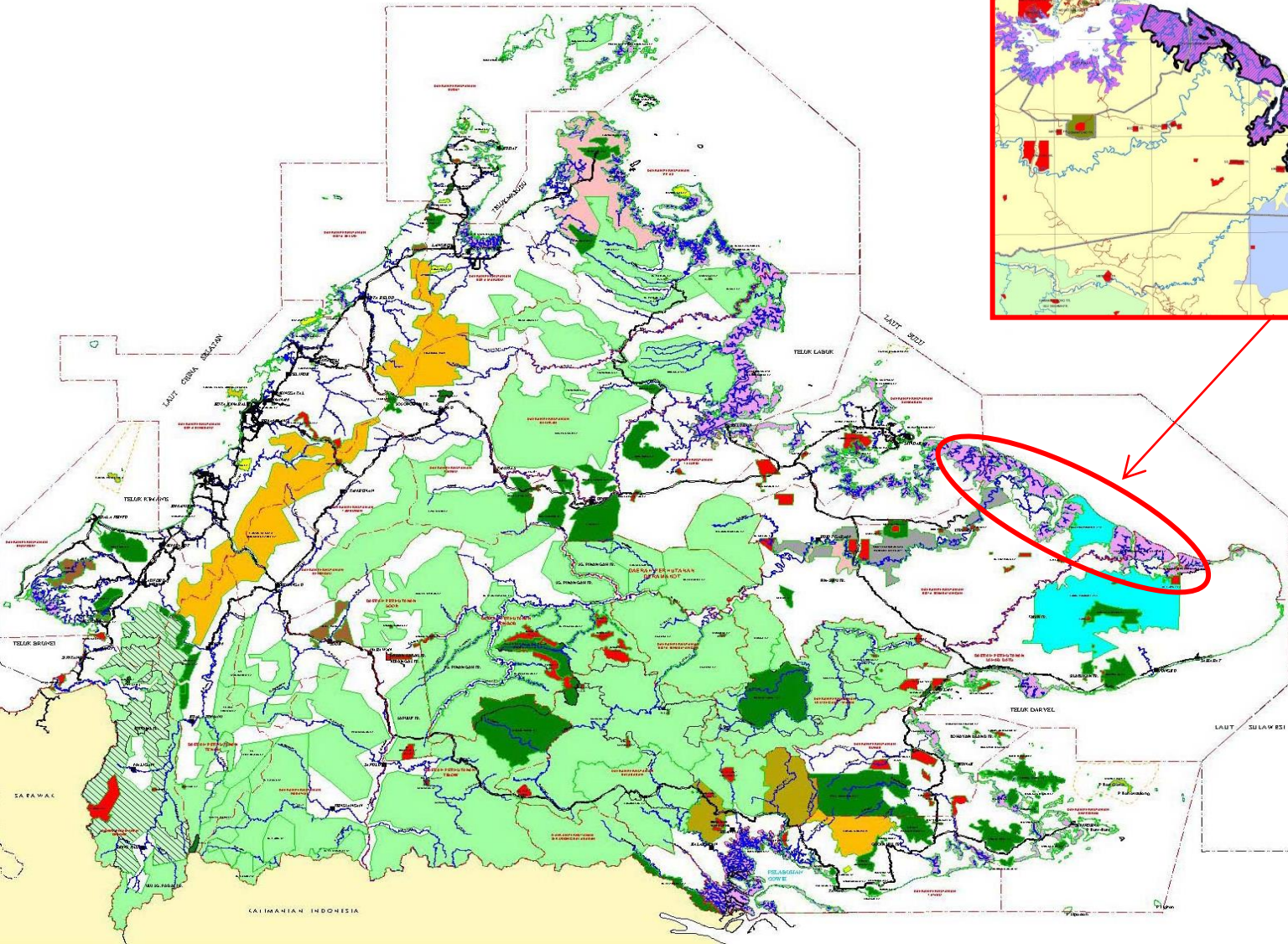
OUTLINE

- INTRODUCTION
- WHAT ARE TO BE MANAGED?
- THREATS & RISKS
- LKSW RAMSAR SITE MANAGEMENT APPROACH
- CONCLUSION



INTRODUCTION

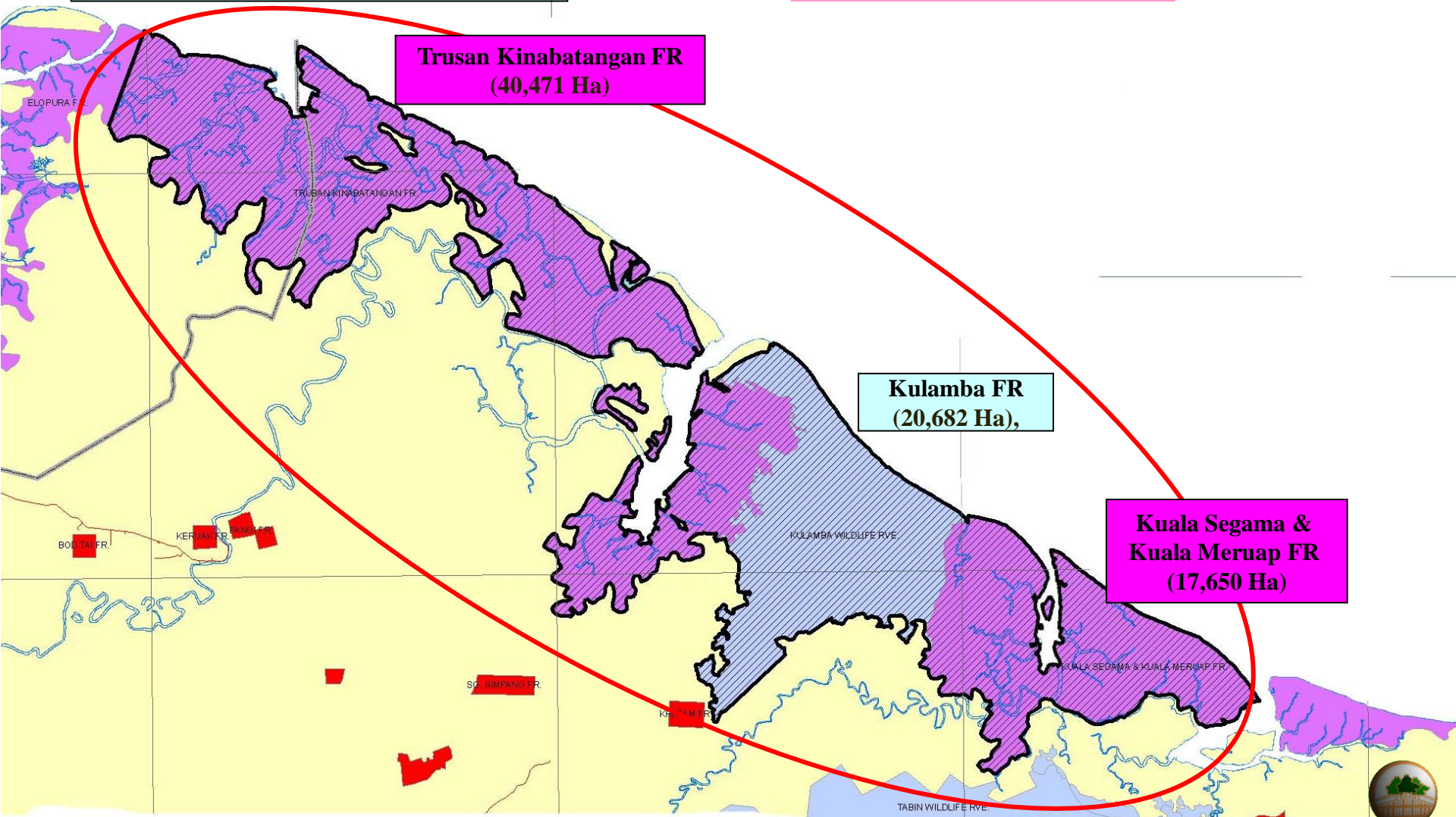
PROJECT LOCATION



INTRODUCTION

PROJECT AREA

Total Areas: 78,803 ha



Trusan Kinabatangan FR
(40,471 Ha)

Kulamba FR
(20,682 Ha),

Kuala Segama & Kuala Meruap FR
(17,650 Ha)



INTRODUCTION

LKSW Ramsar Site officially designated
on 28th Oct 2008 during Ramsar COP 10
held in Changwon, S Korea



INTRODUCTION

ACTIVITIES TOWARDS DESIGNATION

1. Preparation of Ramsar Information Sheet (RIS)

- 13th May – 9th July 2008 : Drafting RIS
- 9th July 2008 : RIS Completion and finalized

2. Designation of Lower Kinabatangan-Segama Wetlands as Ramsar Site

- 25th June 2008 : Initiative was brought to the State Cabinet
- 16th July 2008 : State Cabinet approved the proposed listing of 78,803 ha Mangrove Forest Reserves and Wildlife Reserve
- 28th October 2008 : LKSW was officially designated Sabah 1st and Malaysia largest Ramsar Site.



INTRODUCTION

RAMSAR CRITERIA

Criterion 1

The site is a particularly good representative example of natural coastal mangrove, brackish and peat swamp forest systems



INTRODUCTION

RAMSAR CRITERIA



Tembadau *Bos javanicus*



Criterion 2

The site supports 25 species of fauna and 9 species of flora which are listed in Appendices I or II of the Convention on International Trade in Endangered Species (CITES), and/or in the 2007 IUCN Red List of Threatened Species.



INTRODUCTION

RAMSAR CRITERIA



Criterion 3

The LKSW Ramsar site is inhabited by ten species of primates

Orang Utan pongo pigmaeus



INTRODUCTION

RAMSAR CRITERIA



Criterion 8

The two large rivers, the Kinabatangan and Segama Rivers, flow through the site and form important spawning and nursery grounds for fish and prawn species



WHAT ARE TO BE MANAGED?

Resource

- Focus is on Identified Forest Resources



RESOURCES



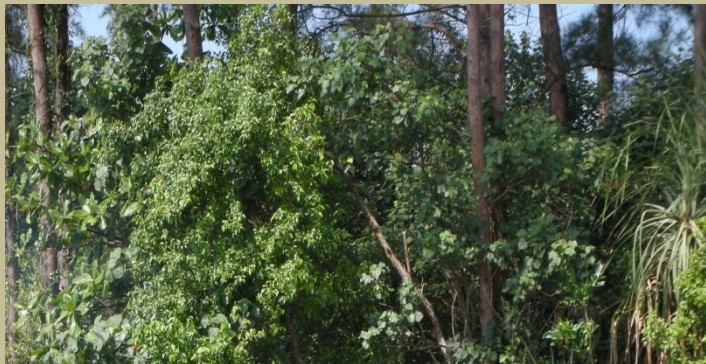
Mangrove Forest

- Main vegetation inside Ramsar Site
- 32,274 Ha (40.8 %)
- Major component of mangroves forest is *Rhizophora sp.*
- Salt tolerant species eg *Avicennia sp*, *Ceriops tagal*



Nipah Forest

- Nipah (*Nypah fruticans*) covered 25,486 Ha (32.2 %)
- Comprises of pure nipah forest and associate plants. This includes patches of mangroves (*Rhizophora spp.*, *Avicennia marina*, *Bruguiera spp.*)
- Usually occurs where there is more fresh water



Beach Forest

- covered 600 Ha (0.8 %)
- Found behind the beach along the sandy coastline
- Dominated by *Casuarina sp* and grasses



RESOURCES



Peat Swamp Forest

- covered 14,498 Ha (18.3 %)
- *Baccaurea*, *Camptosperma* and *Anisoptera* can be found



Freshwater Swamp Forest

- covered 134 Ha (0.17 %)
- *Alstonia*, *Fragrea fragrans* and *Macaranga* can be found



Lowland Forest

- Mixed Dipterocarp forest covered 3,517 Ha (4.5 %)
- Dominated by Dipterocarp species



RESOURCES

Large Sheltered Bays

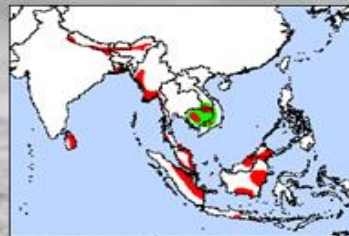


- Home to marine seabeds due to slow moving water
- Offer sheltered water for marine life
- At low tide, the expanse of mudflats important feeding and roosting grounds for migratory birds

LESSER ADJUTANT *Leptoptilos javanicus*

Population: 6,500 – 8,000 individu dewasa dan populasi masih menurun

TERANG



THREATS & RISKS

The ecosystems services and resources of the Ramsar Site face a variety of threats and risks to their long term security and conservation:

Threats & Risks:

- Pollution of Kinabatangan and Segama River
- Forest Conversion In The Upper Stream
- Privately Owned Land In and Around The Ramsar Site
- Offshore Trawling
- Forest Fires
- Sand Mining
- Illegal Harvesting of Tengar



THREATS & RISKS

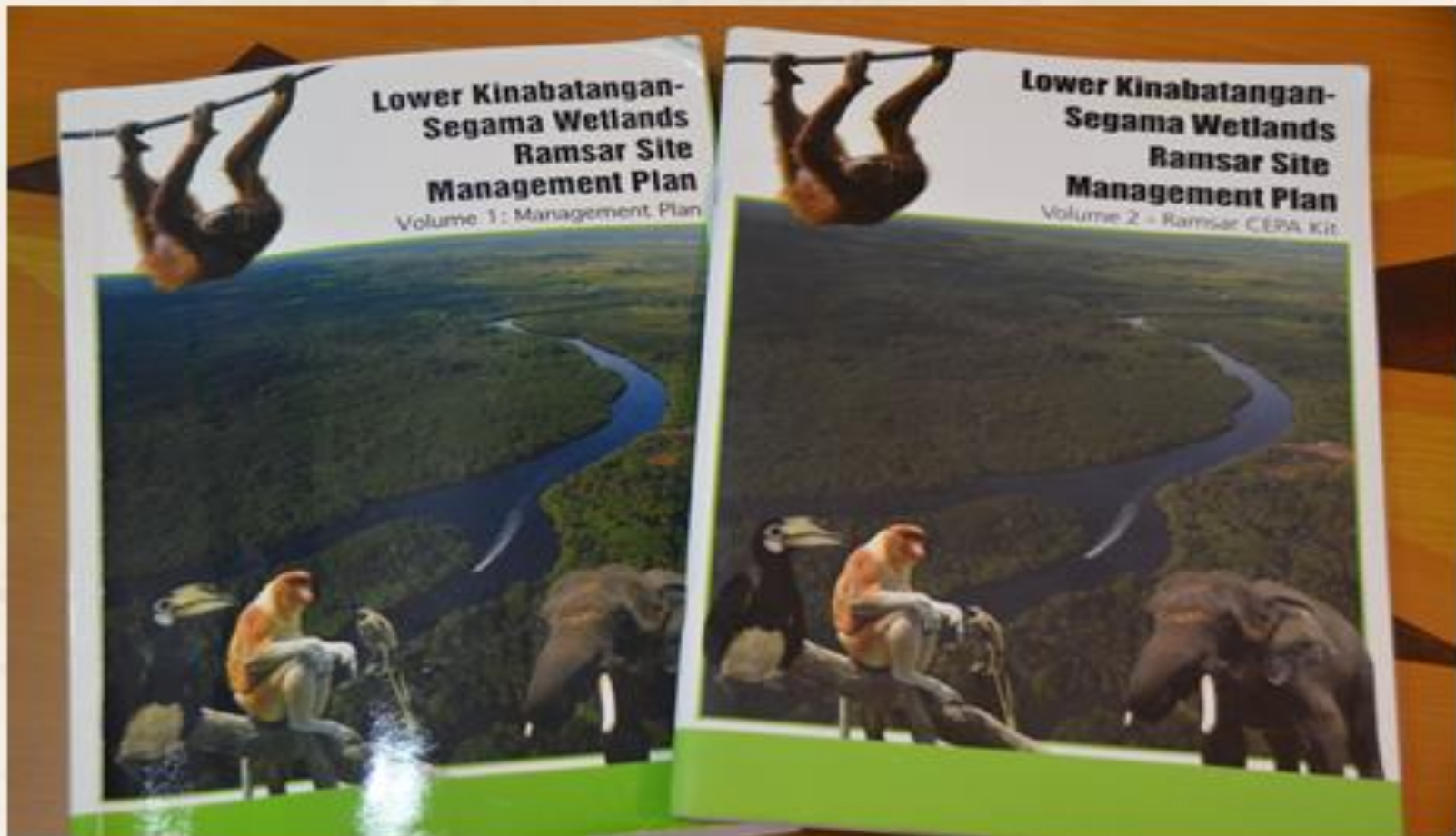
Threats & Risks

- Climate Change
- Invasive Species
- Unsustainable Fishing Practices
- Hunting
- Change in Culture
- Competition for Land



RAMSAR SITE MANAGEMENT APPROACH

Management Goal: Maintain Biodiversity and Ecological Functions, Including Hydrological Regimes, While Promoting Wise Use of The Ramsar Wetland.



RAMSAR SITE MANAGEMENT APPROACH

CORE AREA

3 Forest Reserves (78,803 Ha)

- Trusan Kinabatangan Mangrove Forest Reserve,
- Kulamba Wildlife Forest Reserve, and
- Kuala Maruap and Kuala Segama Mangrove Forest Reserve.

Leading Agency: SFD

Supported by Core Area Advisory Team

BUFFER AREA

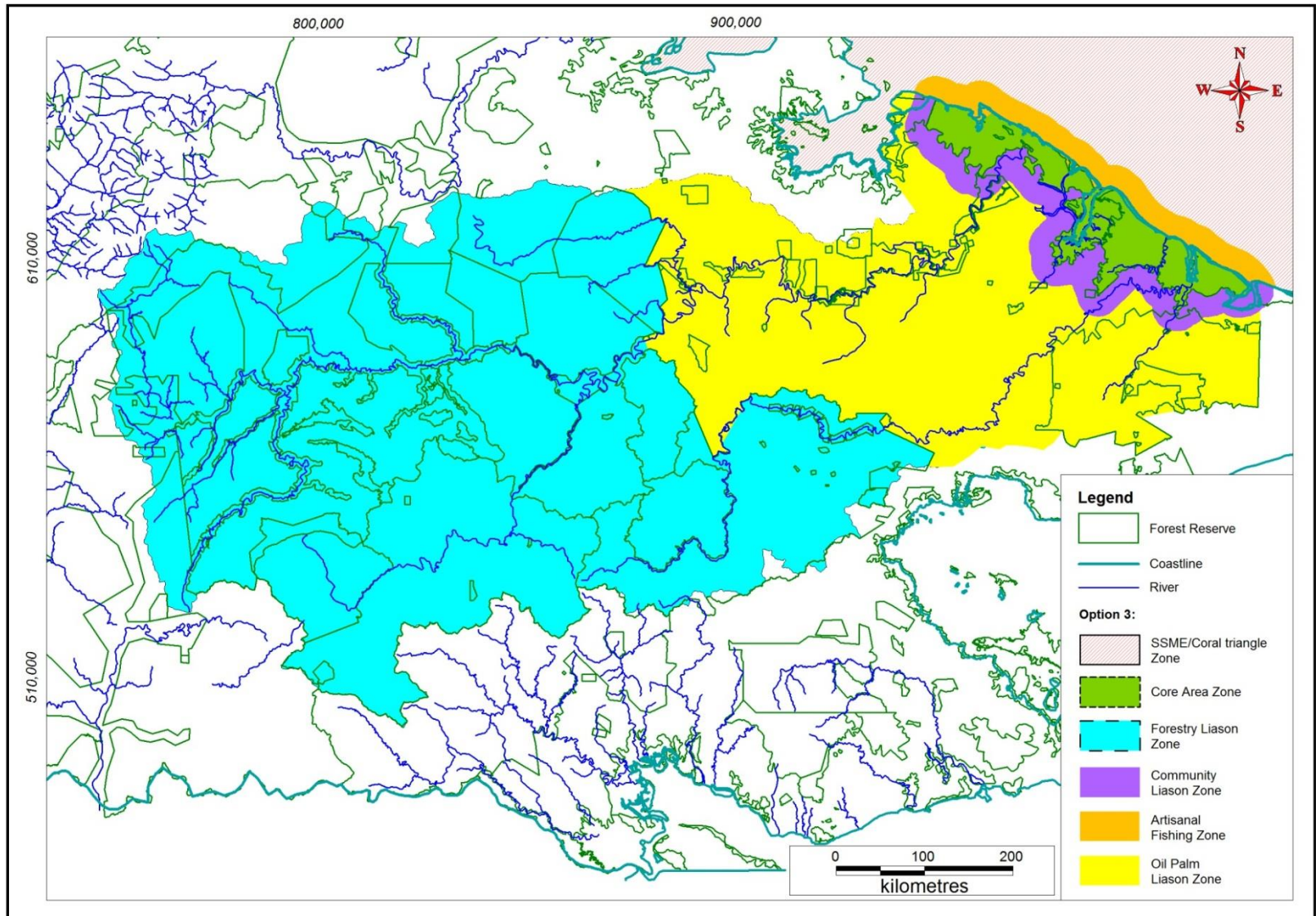
Areas surrounding the Core Area

- Upstream Buffer Area (Community Liaison Zone, Oil Palm Liaison Zone, Forestry Liaison Zone)
- Downstream Buffer Area (Artisanal Fishing Zone, Sulu-sulawesi Marine Ecoregion/Coral Triangle Zone).

Buffer Area Management Team chaired by NRO supported by CEPA Committee chaired by SaBC

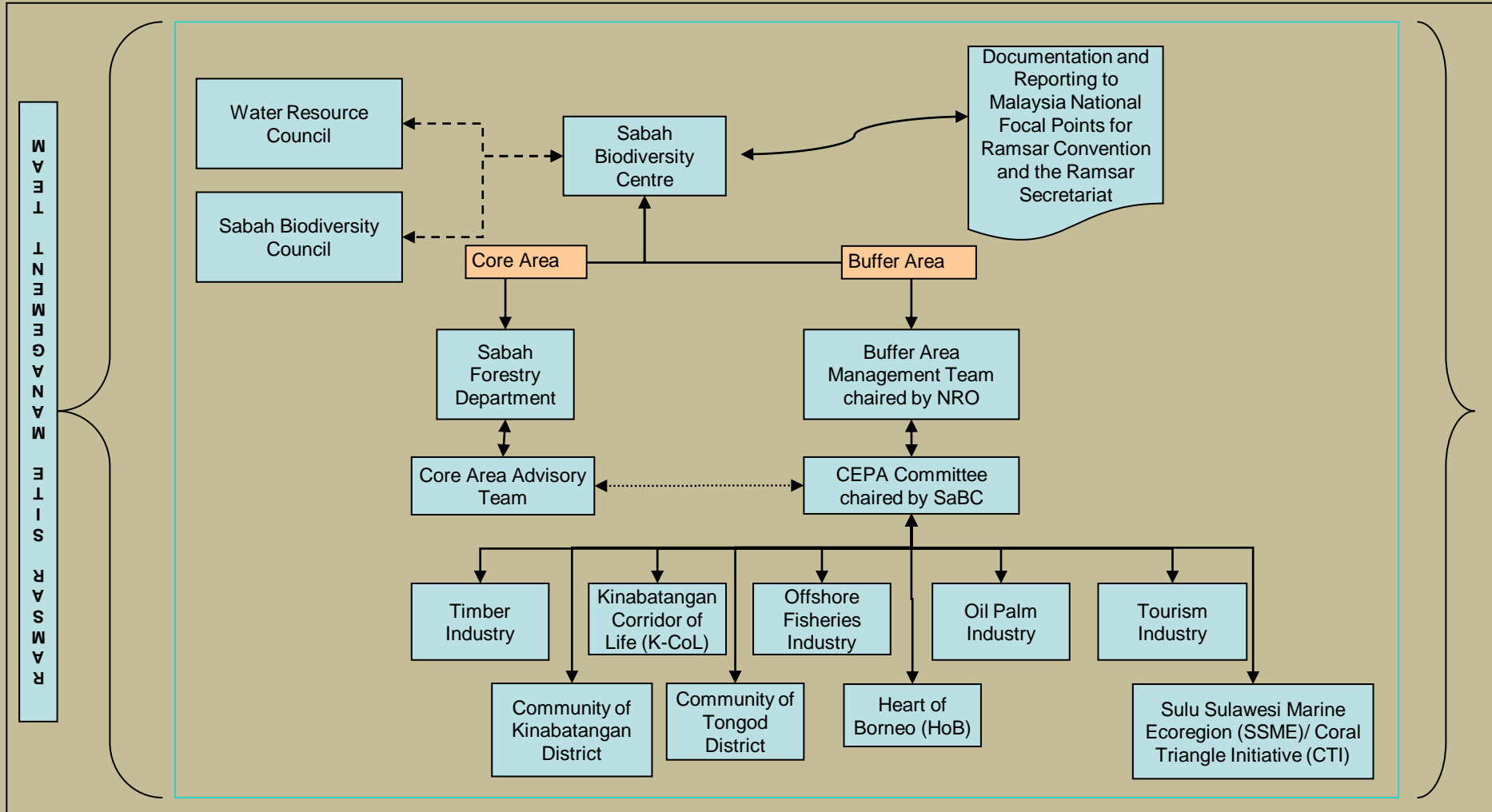


RAMSAR SITE MANAGEMENT APPROACH



RAMSAR SITE MANAGEMENT APPROACH

Management Organisation Chart for the LKSW Ramsar Site



RAMSAR SITE MANAGEMENT APPROACH

Management Strategies and Thrusts of The Core Area

Strategy		Thrust	
1	Enhance biodiversity conservation	1.1	Manage the Boundaries of the Ramsar Site
		1.2	Restore Priority Areas
		1.3	Develop Ecological Connectivity within the Landscape
		1.4	Safeguard the Ecological Resources of the Ramsar Site
2	Protect Ecological functions of the Ramsar Site	2.1	Hydrology
		2.2	Fire Management
3	Develop Collaborative Management Strategies	3.1	Management Team for the Core Area
		3.2	Infrastructure Development
		3.3	Public Awareness
4	Monitor and Manage Sustainable Resource Use	4.1	Timber
		4.2	NTFP
		4.3	Fisheries
		4.4	Tourism
5	Develop and Manage Knowledge	4.4	Transportation
		5.1	Data Collection
		5.2	Active Research
		5.3	Long Term Monitoring
		5.4	Data management and Sharing

RAMSAR SITE MANAGEMENT APPROACH

Management Strategies and Thrusts of The Buffer Area

Strategy		Thrust	
6	Adopt River Basin Management Approaches for Development Planning	6.1	Develop Management Partnerships
			Develop Information Sharing Channels
			Develop Conservation Partnerships
7	Use Communication, Education, Participation and Public Awareness (CEPA) to Develop Environmental Stewardship	7.1	Ramsar CEPA Matrix
		7.2	Ramsar CEPA Kit
		7.3	Forestry
		7.4	Collaboration with the Palm Oil Industry in the Upstream buffer Zone
		7.5	Tourism
8	To enhance biodiversity conservation	8.1	Develop Connectivity
9	Monitor and Enhance Ecological Functions	9.1	Water Quality
		9.2	Water Quantity
10	Monitor and Control Resource Use	10.1	Fishing
		10.2	Hunting

RAMSAR SITE MANAGEMENT APPROACH

ROUTINE IN RAMSAR SITE



Surveillance



RAMSAR SITE MANAGEMENT APPROACH

ROUTINE IN RAMSAR SITE



Enforcement



RAMSAR SITE MANAGEMENT APPROACH

ROUTINE IN RAMSAR SITE



Awareness



Centre for Research & Education



WETLANDS, WATER & LIFE



OUR BEAUTIFUL PLACES

Sarawak's most beautiful places are our wetlands. From Similajau's sandy beaches and the mighty Rejang delta, to floodplain lakes like Loagan Bunut, up to the ricefields of the Kelabit highlands, 1,000m above the sea. Sarawak's greatest distinction is perhaps her rivers, big and small, connecting all these wetlands together into the beautiful land Sarawak is.

OUR LIFE SUPPORT SYSTEMS

Like the heart that gives life, wetlands support more life than any other environment on Earth. They give us water to drink, to grow our food, to support our industries and to maintain nature's balance to avoid catastrophes like flooding or drought. In short, we just can't do without them. We owe our very existence to them.

SPECTACULAR WILD LIFE

Wetlands are home to an astonishing abundance in plant and animal life, almost all totally dependent on wetlands. They can live no where else. Sarawak's proboscis monkeys, crocodiles, dolphins and the tens of thousands of waterbirds that visit our shores every year are all part of this spectacular array of wildlife.

THE ADJUTANT STORK

The largest bird in Sarawak, and also the largest on Borneo. It stands 1m tall with a 2.5m wingspan.

