ASEAN Biodiversity OUTLOOK





• ACB is an intergovernmental regional centre established to facilitate regional and global cooperation on the conservation and sustainable use of biodiversity.

Scientific Oversight from the

Cambodia

- ASEAN Working Group on Nature Conservation and Biodiversity
- The Governing Board

Myanmar

OCEA

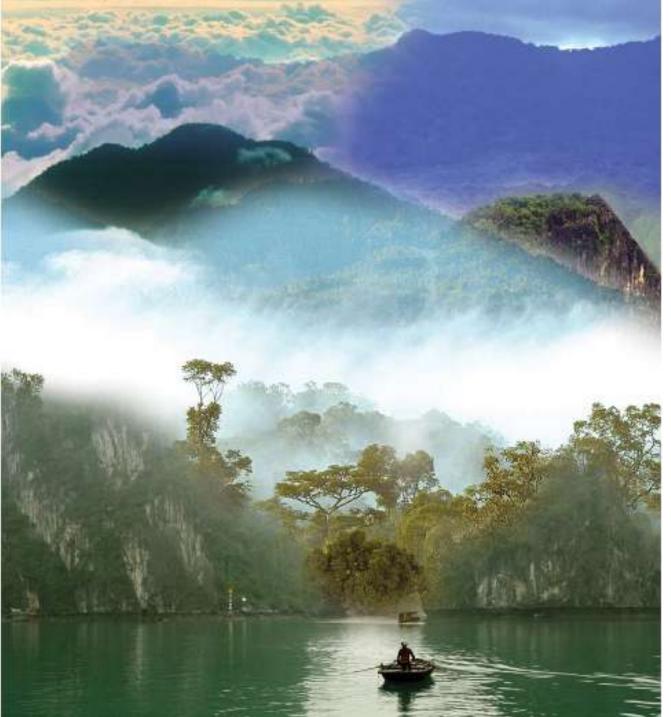
- ASEAN Working Group on Coastal and Marine Ecosystems
- ACB is hosted by the Government of the Philippines. Java Sea



BASEAN

EINTRE TOR BIORM

Conserve Biodiversity, Save Humanity!



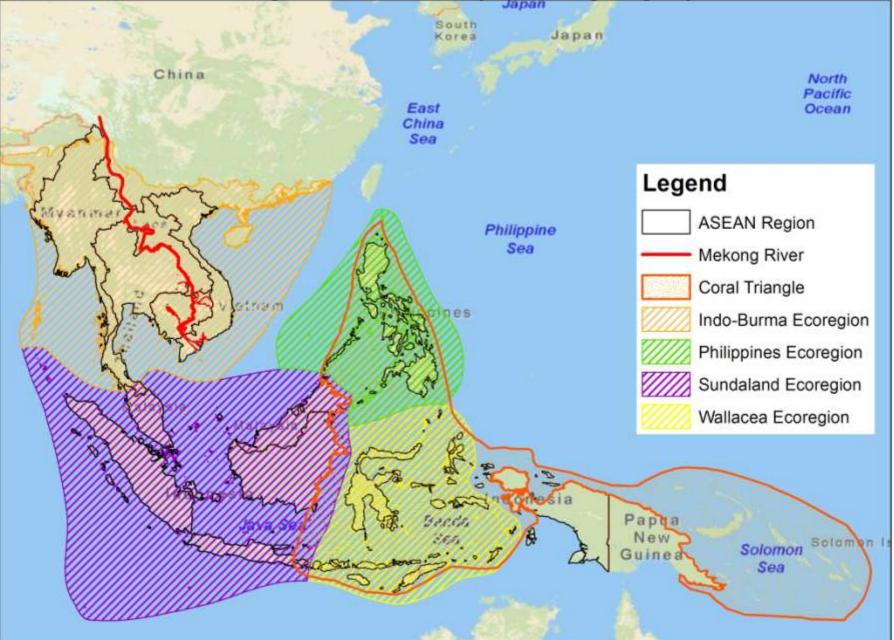
Outline

Biodiversity Resources

Threats to Biodiversity in the ASEAN Region

ASEAN Initiatives

The ASEAN Region hosts unique bio-geographic units



Ecosystems

Ecosystems	Brunei Darussalam	Cambodia	Indonesia	Lao PDR	Malaysia	Myanmar	Philippines	Singapore	Thailand	Viet Nam
Agriculture	~	✓	~	~	\checkmark	~	✓		\checkmark	~
Dry and Sub-humid land						\checkmark				✓
Forest	✓	~	✓	~	✓	~	\checkmark	✓	✓	√
Inland Waters	~	~	✓	✓	~	✓	√	~	\checkmark	~
Island			✓		√		✓			
Marine and Coastal	✓	~	✓		✓	✓	✓	\checkmark	\checkmark	√
Mountain	✓	√	✓	~	\checkmark	✓	✓	\checkmark	\checkmark	√

Source: Fourth National Reports to the Convention on Biological Diversity

Drivers of Biodiversity Loss In Southeast Asia



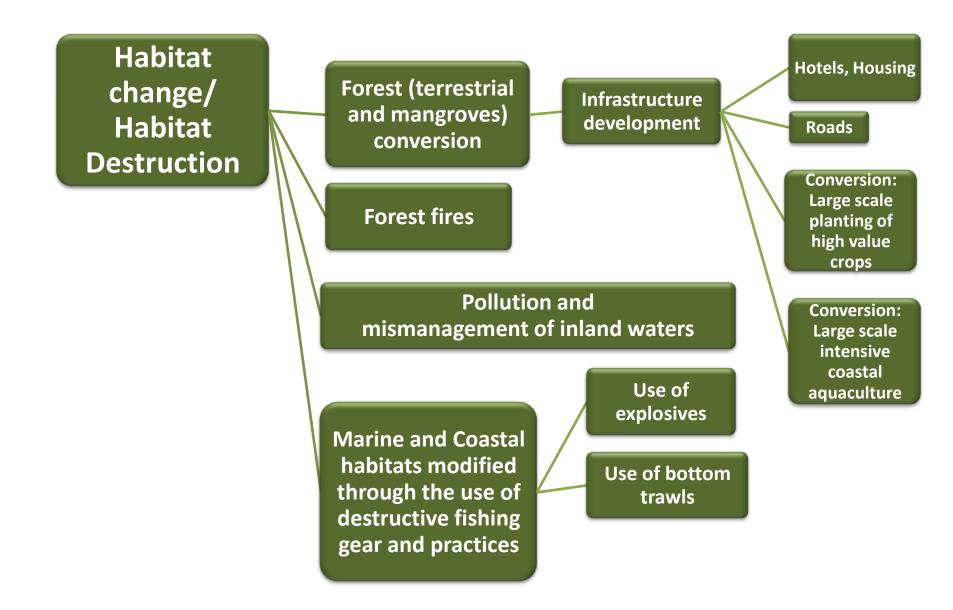
Climate Change

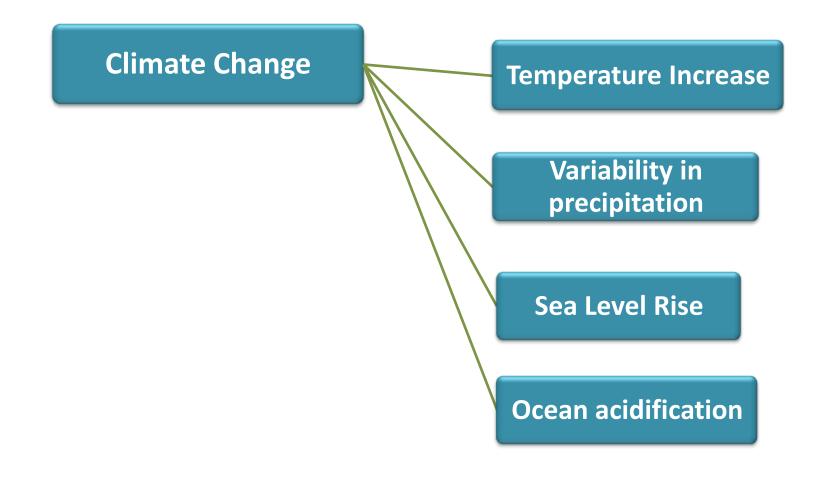
Drivers of Biodiversity Loss in Southeast Asia Invasive Alien Species

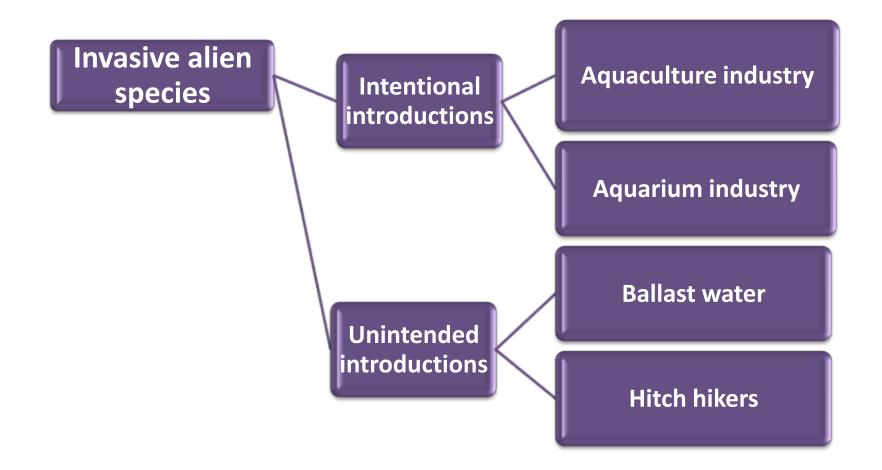
Over Exploitation

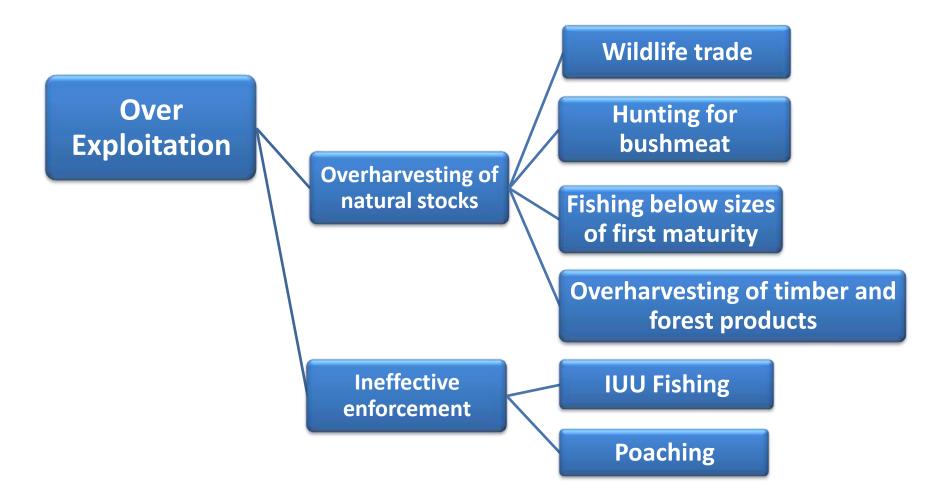
Pollution

Poverty

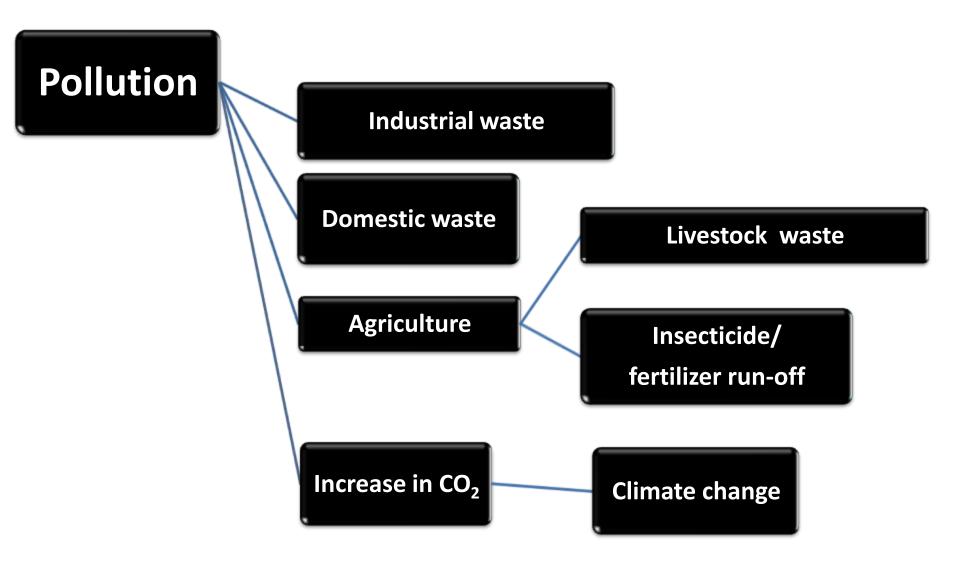


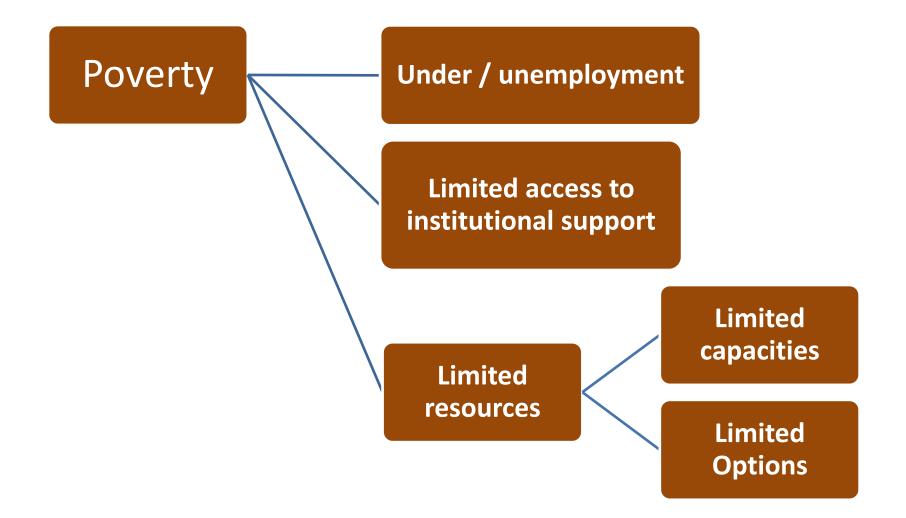




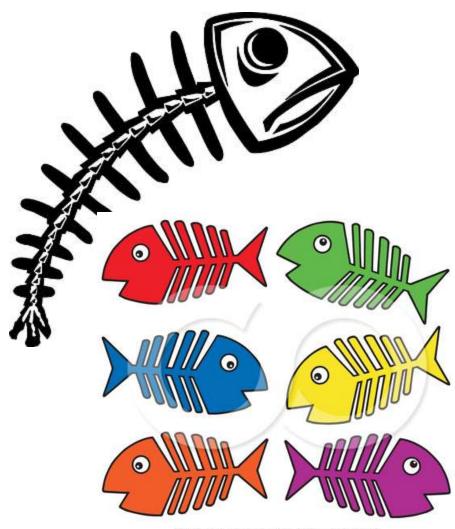


The growing population's dependence on timber, fuel wood, and other forest products, as well the conversion of forests into agricultural and industrial lands, are taking their toll on the region's forests. Already, Southeast Asian countries had lost a total of 555,587 square kilometers of forests between 1980 and 2007.

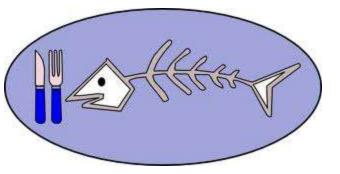




Impacts of threats



© visekart * www.ClipartOf.com/214515





Summary of threatened species by country

Species Group	Brunei Darussalam	Cambodia	Indonesia	Lao PDR	Malaysia	Myanmar	Philippines	Singapore	Thailand	Viet Nam
Vertebrates										
Fish	8	28	138	23	56	31	63	25	71	45
Mammals	35	37	185	45	70	45	39	12	57	54
Birds	16	23	114	21	42	40	67	14	45	37
Reptiles	5	12	27	11	21	22	35	4	22	27
Amphibians	3	3	32	5	47	0	48	0	4	16
Invertebrates										
Insects	1	0	40	0	5	1	28	2	5	1
Crustaceans	0	0	14	3	32	2	4	3	19	4
Molluscs	0	0	1	0	30	0	1	0	0	0
Coelenterates	0	1	3	0	3	0	1	2	2	1
Plants										
Trees and Shrubs	94	29	353	17	647	33	172	54	76	118
Other flowering										
plants	4	0	27	0	21	0	35	1	2	0
Mosses and liverworts	0	0	0	0	2	0	2	0	0	0
Conifers	1	0	6	3	15	4	5	0	2	13
						4	5			
Cycads	0	2	0	1	1	1	1	0	6	16
TOTAL THREATENED (CR+EN+VU)	167	135	940	129	992	179	501	117	311	332

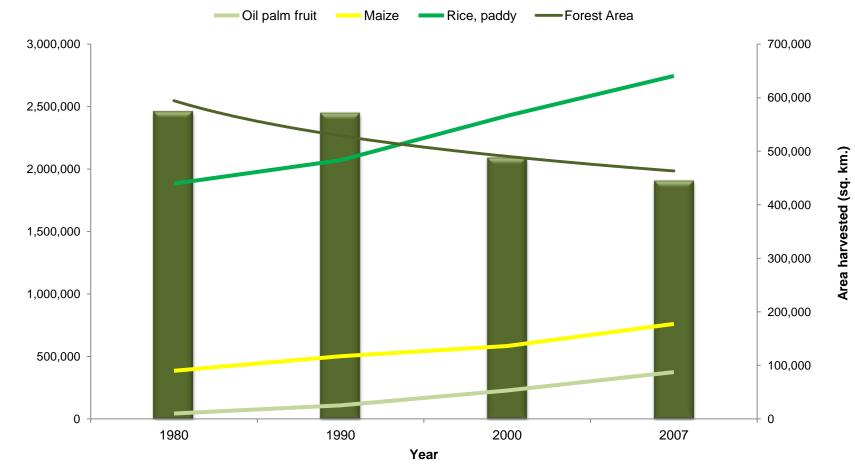
Threatened species¹ by environment

Таха	Freshwater	Marine	Terrestrial
Fishes	149	82	-
Corals, Sea Anemones, Jellyfish	-	189	-
Amphibians	83	-	135
Molluscs	1	2	31
Mammals	15	9	266
Reptiles	41	5	68
Birds	30	3	194
Crustaceans	77	-	2
Insects	34	-	58
Plants	-	-	1202
All taxa	430	290	1956

¹ Critically endangered + Endangered + Vulnerable

Source: IUCN Red List of Threatened Species v2010.1 www.iucnredlist.org

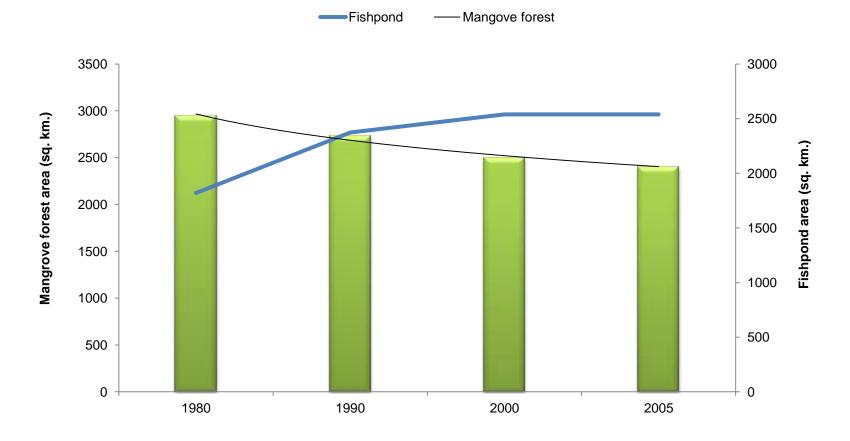
Trends in forest and selected crops areas, 1980-2007, ASEAN



Sources of data: ASEAN Biodiversity Outlook 2010 FAOSTAT 2011. Accessed 24Nov2011

Forest area (sq. km.)

Trends in mangrove forest and fishpond areas, 1980-2005, PHILIPPINES



Sources of data:

1. ASEAN Biodiversity Outlook 2010.

2. Philippines Bureau of Fisheries and Aquatic Resources. Philippine Fisheries Profiles. Accessed on 25 November 2011 at http://www.bfar.da.gov.ph/pages/AboutUs/maintabs/publications/publications.html

Status and trends of the components of biological diversity

Trends in extent of selected biomes, ecosystems and habitats	State and condition are becoming serious, moving towards tipping points
Trends in abundance and distribution of selected species	Status remains an area of concern and declining trend of selected species and fragmentations of habitats remain unabated.
Change in status of threatened species	The change in status is quite slow through the years and activities addressing these are inadequate.
Trends in genetic diversity of domesticated animals, cultivated plants and SE important fish species	An emerging concern in the region especially with countries moving towards intensification of agricultural production.
Coverage of protected areas	State and conditions are improving with notable increases and expansion of protected areas. Need to improve effectiveness

Ecosystem integrity and ecosystem goods and services

Fragmentation of ecosystems	Fragmentation of ecosystems is increasingly associated with increase in development activities in many of the region.
Water Quality	declining water quality due to fragmentation of habitats, use of Agrochemicals; Major rivers and some lakes in the region are silted due to soil erosion & other upland activities
Nitrogen deposition	Actual measurements not adequate and uniform, need to improve monitoring
Trends in invasive alien species (IAS)	An emerging concern in the region

Sustainable Use

Area of forest, agricultural and aquaculture ecosystems under sustainable management	There is an emerging concern over the impacts of intensive and extensive agriculture. Sustainable practices are being adapted in the region
Ecological footprint and related Concepts	Region-wide, the ecological footprint is rapidly increasing in the face of shifting consumption patterns

Status of traditional knowledge, innovations and practices



Status and trends of linguistic diversity and numbers of speakers of indigenous languages Countries are taking efforts to preserve the language diversity especially those spoken by ethnic communities.

Status of access and benefit sharing



Indicator of access and benefit-sharing to be developed One indicator may be the development of national ABS framework. Capacity building activities to this end have been conducted among ASEAN Member States

Status of resources transfers



Official development assistance (ODA) provided in support of the CBD Although acknowledged as insufficient, ODA funds have been

increasing in the region for the past 5 to10 years in relation to compliance to CBD requirements

Summary of Threats

- Dependence on timber, fuel wood, forest products, and the conversion of forests into agricultural and industrial lands, have resulted to a loss of 555,587 square kilometers of forests between 1980 and 2007
- ASEAN suffers the **highest rates of mangrove losses** in the world, 628 square kilometers of mangrove were stripped away each year, aggregated decline of 26 percent, within a 25-year period.
- General decline in coral reefs in the ASEAN region between 1994 and 2008, rate of loss at 40 percent.
- Seagrasses are threatened with human-induced development Indonesia, (Philippines, Singapore and Thailand) experienced from 30 up to 50 percent losses of seagrass habitats
- The ASEAN region remains challenged in delivering progress towards addressing the drivers of biodiversity loss, <u>particularly in</u> <u>preventing invasive alien species</u>, addressing the impact of <u>biodiversity loss to species and ecosystems</u>, and abating pollution and the exploitation of forests and wetlands.





PROTECTED AREAS IN THE ASEAN REGION



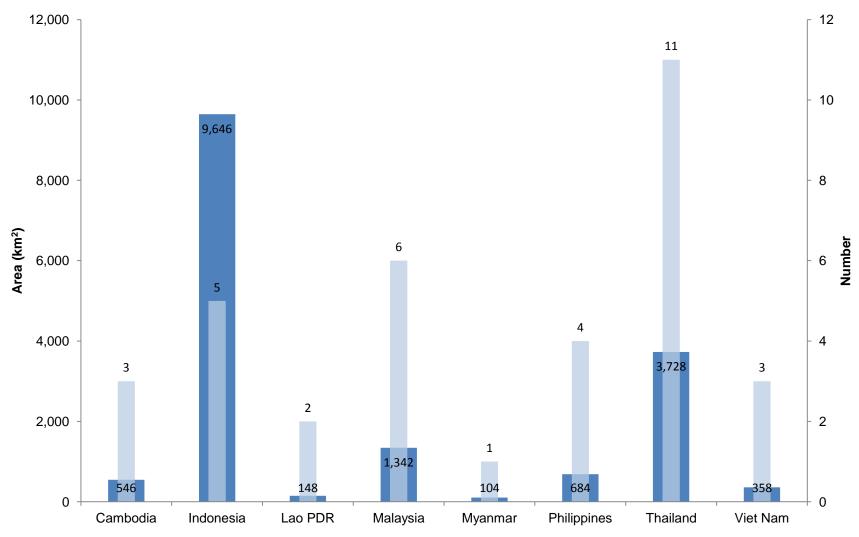
Protected areas of the ASEAN (in km²)

Country	Terres	trial1	Wet	tlands ²	Coastal/Marine ¹	
	2000	2010	2000	2010	2000	2010
Brunei Darussalam	2,623	2,623	-	-	44	44
Cambodia	41,770	47,034	546	546	78	84
Indonesia	258,342	269,774	2,427	6,565	34,019	65,975
Lao PDR	38,433	38,433	0	148	-	-
Malaysia	59,978	60,045	384	1,342	2,555	2,555
Myanmar	30,082	42,639	0	3	476	476
Philippines	32,136	32,454	684	684	16,453	16,754
Singapore	31	32	-	-	9	9
Thailand	103,155	104,024	5	3,728	4,804	4,804
Viet Nam	19,898	20,568	120	258	974	3,281

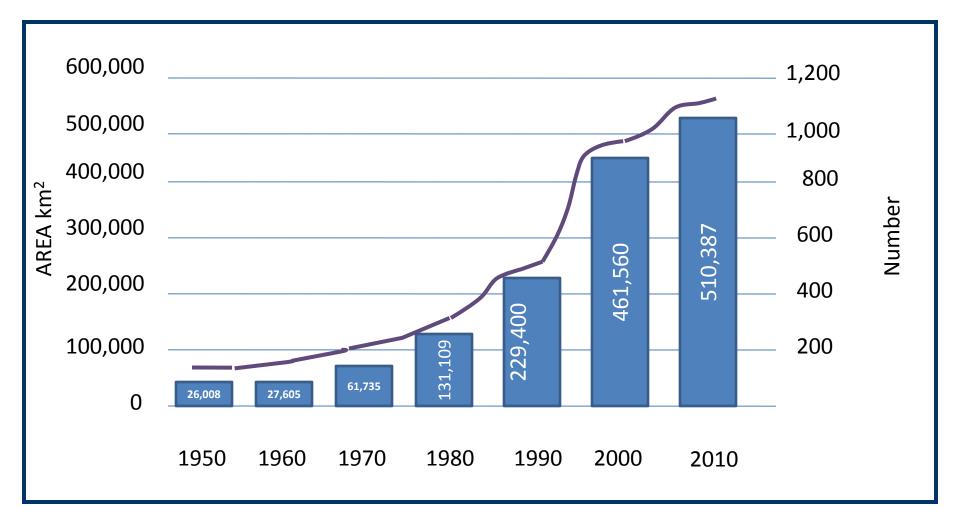
¹ IUCN and UNEP-WCMC (2011) The World Database on Protected Areas (WDPA): January 2011. Cambridge, UK: UNEP-WCMC.

² Ramsar-listed wetlands

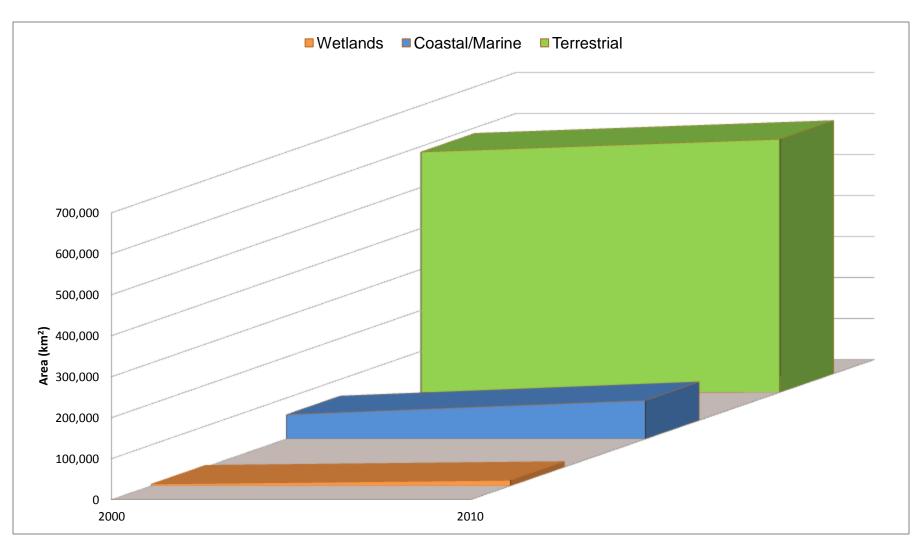
Number and area of Ramsar sites in AMS, as of 2011



Growth in area and number of designated protected areas in the ASEAN region, 1950-2010



Protected Areas Trends



Multilateral Environmental Agreements



Countries	CBD	Ramsar	CITES	WHC	CMS	ITPGRFA
Brunei Darussalam	\checkmark		\checkmark			
Cambodia	\checkmark	\checkmark	\checkmark	\checkmark		\checkmark
Indonesia	\checkmark	\checkmark	\checkmark	\checkmark		\checkmark
Lao PDR	\checkmark	\checkmark	\checkmark	\checkmark		\checkmark
Malaysia	\checkmark	\checkmark	\checkmark	\checkmark		\checkmark
Myanmar	\checkmark	\checkmark	\checkmark	\checkmark		\checkmark
Philippines	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Singapore	\checkmark		\checkmark			
Thailand	\checkmark	\checkmark	\checkmark	\checkmark		\checkmark
Viet Nam	\checkmark	\checkmark	\checkmark	\checkmark		

ITPGRFA - International Treaty on Plant Genetic Resources for Food and Agriculture

Trans-boundary Initiatives



Greater Mekong Subregion

BATANES

PAYAC

ZHEILANG

福建省 FUJIAK

湖南省 HUNAN

PRADESH

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ASSAM

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AND

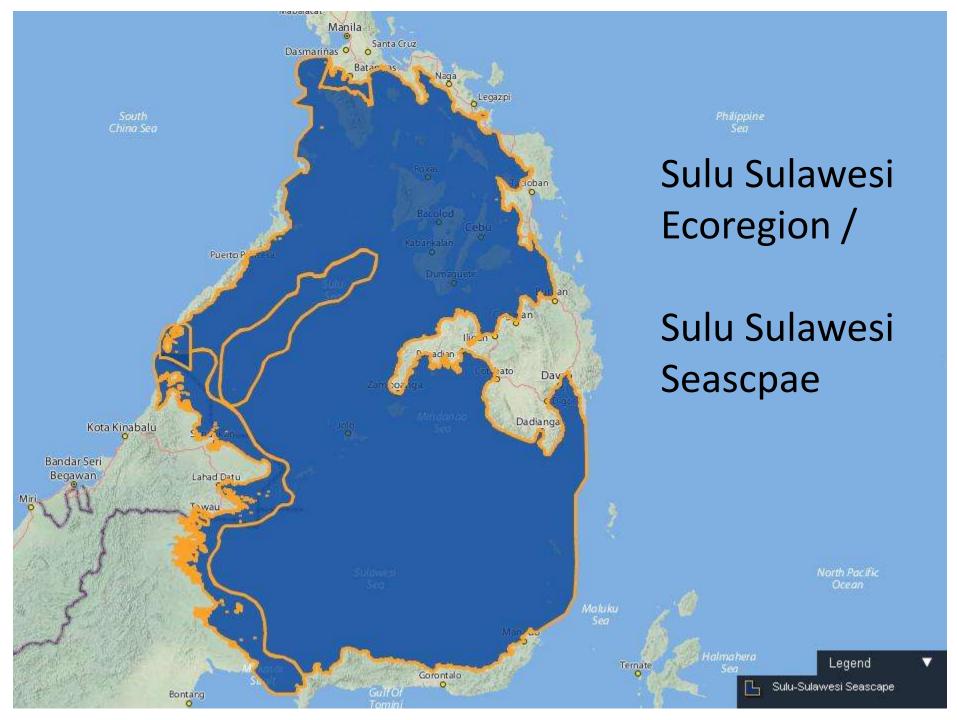
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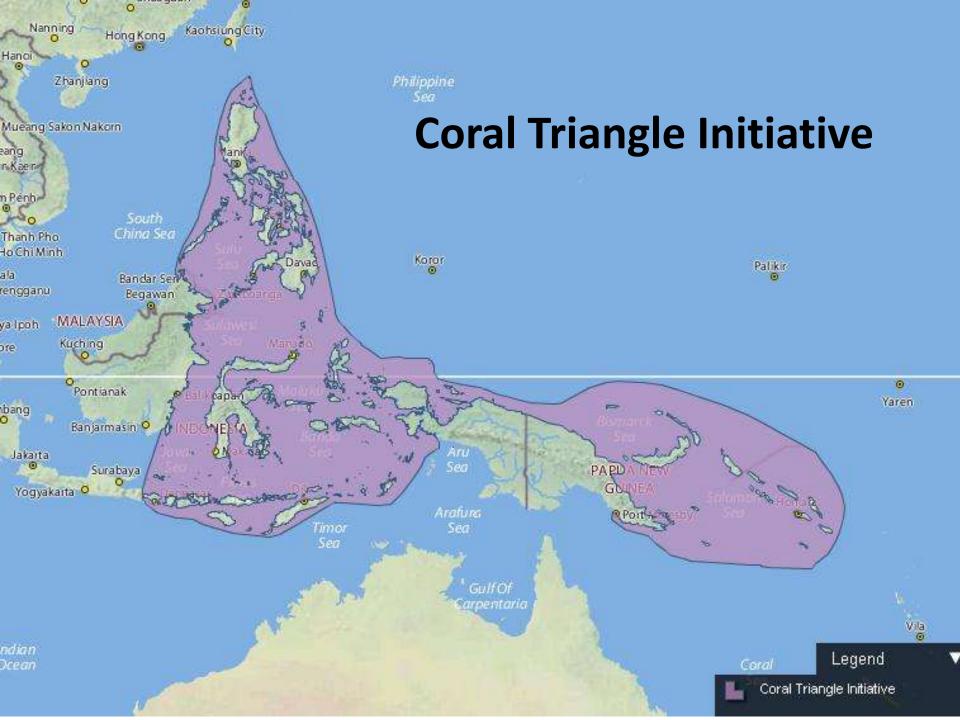












Thematic Initiatives

• Discussion fora & capacity building on

- Access and Benefit Sharing
- Agrobiodiversity and Biosafety
- Business and Biodiversity
- Biodiversity & Climate Change
- Ecotourism and Biodiversity Conservation
- Global Taxonomic Initiative
- Invasive Alien Species
- Payment for Ecosystem Services
- Peatland Management and Biodiversiy
- Wildlife Enforcement
- ASEAN Champions for Biodiversity





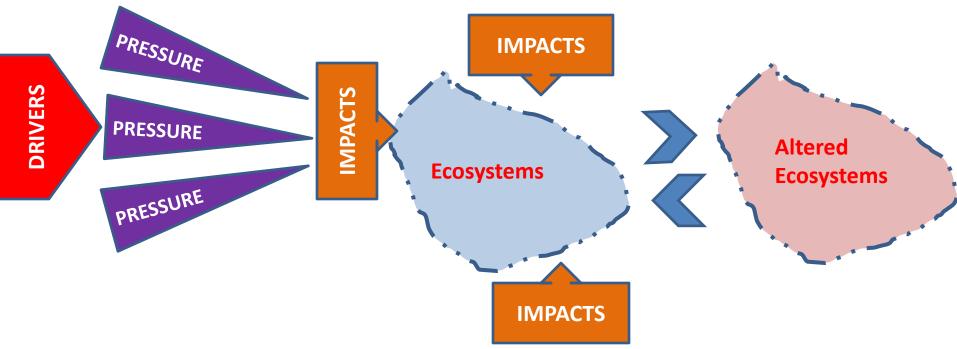
Regional Challenges



Need for AWARENESS of the values of biodiversity

- Species, habitats and ecosystems
- ecosystem services
- preparation and implementation of strategic plans

Need to recognize connectivity between among ecosystems and their threats & drivers

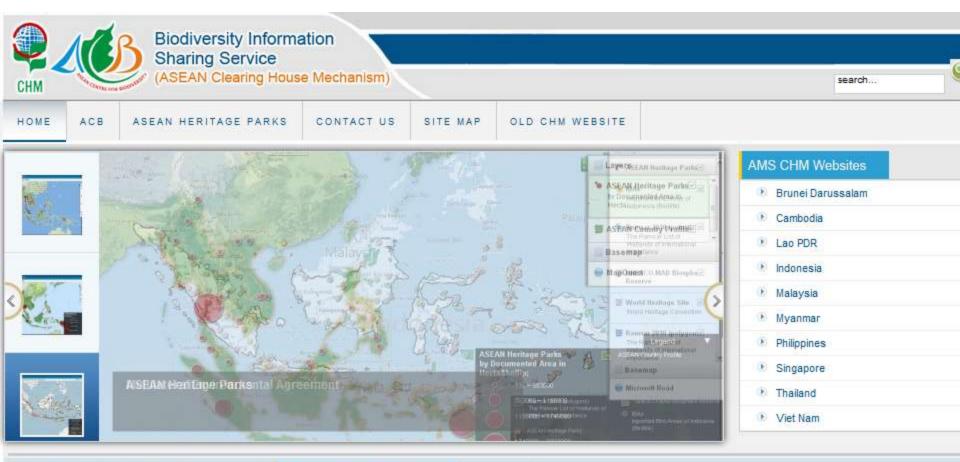


- Introduction of species and their effects on natives
- Human consumption patterns and effects on habitats and species
- Upland practices and effects on the lowland and coastal environments

Need to have common information platforms

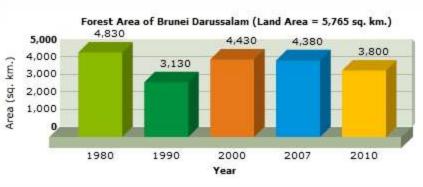
- The data exist in a number of countries, but they are not standardised or harmonised
- a need to improve the interoperability of existing data in taxonomic, spatial and temporal coverage. Identify baselines, gaps and means to measure improvement
- Need to reconcile data and utilize the national CHMs for common access, decision support at all levels (academe, LGU, national government agencies, etc)





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Ecosystems	B
Drivers of Biodiversity Loss in the ASEAN Region	æ
Regional Analyses	



Clearing House Mechanism for Biodiversity



MAINMENU

Home

About Philippine CHM News and Events Overview on Biological Diversity CBD National Implementation

Biodiversity in the Philippines

Important Conservation Areas

Welcome to CHM Philippines

The Philippine Clearing House Mechanism (CHM) is established to facilitate the sharing of data and information on the conservation and sustainable use of biological diversity between and among the various stakeholders in the country. This is part of the Philippine commitment to the <u>Convention on Biological</u> <u>Diversity</u> (CBD) which created the Clearing House Mechanism pursuant to Article 18.3 of the Convention. The CHM aims to contribute significantly to the implementation of the CBD by promoting and facilitating technical and scientific cooperation among Parties, other Governments and stakeholders.

Featured Biodiversity



Mt. Mantalingahan Protected Landscape Know more about one of the key biodiversity areas in the country today. » More

Brunei Darussalam (draft website prepared by ACB-BIM)



The Snurd Clearing House Mechanism (CHM) is established to facilitate exchange and sharing of biodiversity data and information for the conservation and sustainable use of Snurd's rich and diverse biological

resources. As a member of the Convention on Sideoted Diversity (CSD) by accession, Snunci is committed

towards maintaining this national CHM as part of its contribution to CSD's implementation by promoting and

facilitating technical and action/fic ecoperation among stakeholders in the ecurity. Information exchange and sharing is done through the maintenance and management of this national CHM vediate which can be

Main Manu

BRUNEI DARUSSALAM CLEARING HOUSE MECHANISM

About Brunel CHM

accessed at http://chim.bru/

Written by Asaramy HH

Mission Accomplaited As 80,000 Trees Planted

Hot News

Albaut Shuno CHM Biodivosity in Shund Conscription Arcos CSD National Implementation News Conter Addisations

Photo Gallery Smpartart Links Brund CHM Sile Mae

share error ate map

What's Happening

View NJ Colorda

Species and PA Encoder

Protected Areas Breader Interface

Service Receive Interface

Taxonomic Troc

No eventa

Shdaify and Primary Ratiourcas Polin Drang Kaya Son Ullama Data Son Sola Ang Hij Yahya bin Sogawan Mulim Data Padula Hij Sakar yestanday milad up ha sloova to plant the 50,000¹⁰ tree at Companyment 37 of Sulf Ladan Procest Resource in Tulama.

Meld in conjunction with World Parestry Day 2011, the Mass. Thes Planting company also saw 755 Aquilana Malaccomes (Agarwad), commonly known as "Saharu," seedings planted over a five-freetane area.

Tutong - Last year's larget mission to plant a total of 60,000 trees has been accomplaited as Minister of

Organized by the Parathy Department of MIPR, the commony saw the participation of 150 individuals, among them personnel from HSSC, SCS, Salduri, SISD, TAIS, TAP Energy, PTAS and SSA.

The 5:50am event was held within the forest reserve and saw the attendance of MUPR Acting Permanent Secretary Melid Rate bin CP Hij Md Yunes, MUPR Deputy Permanent Secretary Hijh Normah Suite Hayed bed \$205MDSU (Dr.) Hj Melid Jamil Al-Sufn and the Director of Persolay, euro charman of the coromany, Hj Sadh Ein Saleh.

Read mans

Featured Publications





Nextured Species

Galeopterus variegatus (Sunda Flying Lemur) Extinte attention Restington attention

heatured PAs

Anduki Forest Reserve

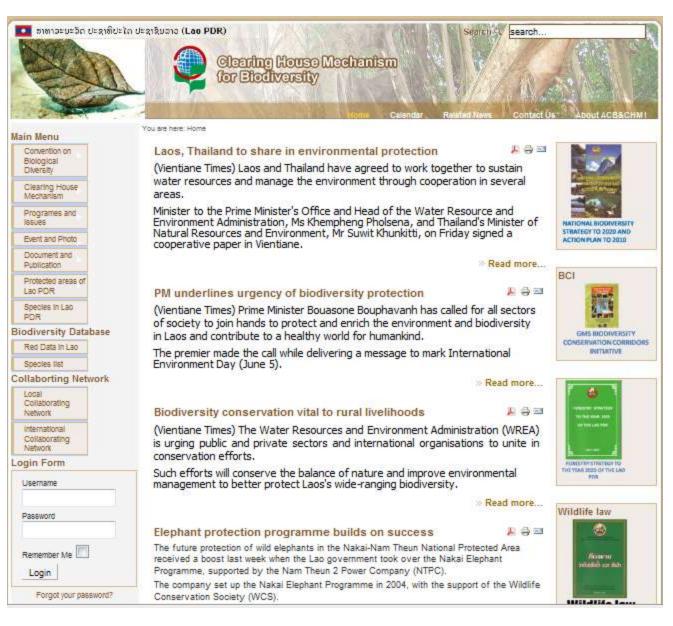




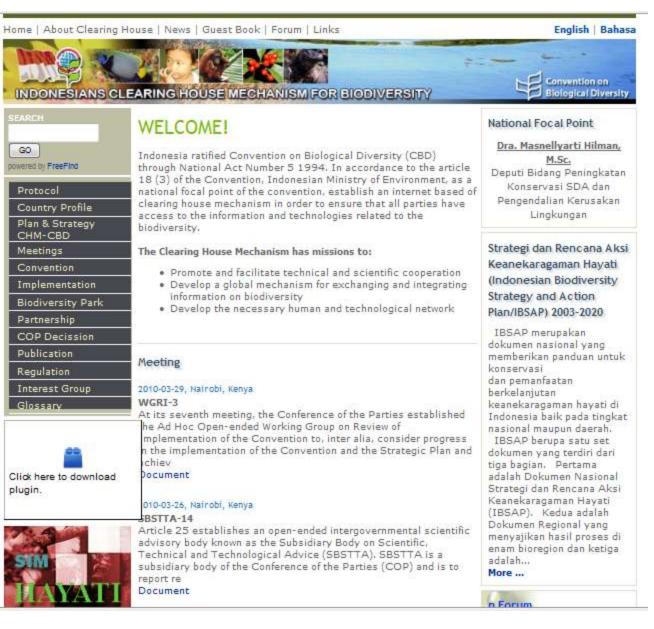
Important Bird Areas (IBAs)



Lao PDR (currently being hosted by ACB)



Indonesia



Malaysia

MALAYSEA	YSIAN GOVERNMENT As CLEARING HOUSE-MECHANISM	
	Home Contact Us FAQ Links What's New Sitemap	0
Google Search	Welcome to the Biological Diversity Clearing House Mechanism (CHM), Malaysia, Webpage. Malaysia is a party to the UN Convention on Biological Diversity (CBD). More about the Convention on Biological Diversity. Malaysia's Clearing-House Mechanism	
Biodiversity Malaysia Background Policy & Legislation	The primary objective of this portal is to provide a mechanism for the efficient exchange of information on biological diversity in Malaysia between involved persons and institutions. In addition, the service will facilitate international access to information on the status of biodiversity studies and biodiversity management in Malaysia. In line with the CHM philosophy, the system will collate information from a variety of different sources, provide easy access to and make available for public circulation, information, databases and other relevant material, provided by the various stakeholders. We hope that you will find this portal useful and informative. If you have any queries, please do not hesitate to contact us.	CHM
Related Federal Agencies	The CHM is arranged in accordance with the Convention's thematic and cross-cutting issues.	
Non-Government Organizations Related State Agencies	Thematic issues Cross-cutting issues	
Parks Assesment Document	National Strategy for the Conservation of Malaysia's Biological Diversity	
 Publications Checklists (Login Required) 	The Convention also provides an important framework for Malaysia's integration of natural resources and environment and biodiversity management policies. Article 6 of the Convention obliges all parties to develop and implement National Biodiversity Strategy and Action Plans.	
Database-Member Login	National Strategy for the Conservation of Malaysia's Biological Diversity, 1998.	
Database-Researcher and Admin Login		
Multilateral Agreements		
• CBD		
• UNFCCC		
• RAMSAR		
· CITES		
Other Links	2010 International Year of Biodiversity	
Joint FRIM-FORDA Portal		
Biological Diversity Management		
Threats to Biological Diversity	GUIDE TO PREPARING MANUSCRIPTS FOR	

Singapore



THE GREEN WAVE

Thailand

o. Site Map Download Webboard Contact Us	28 November 2011 Thai I Eng B			
Clearing a	Kouse Mechantsm			
ction of the current rate of biodiversity loss at the global, regional and natio	mai level.			
General Information				
What is Biodiversity ?				
Biodiversity in Thailand				
Biodiversity at the Provincial Level	2010 International Vear of Biodiversity			
News	Thematic Programmes of Work			
U News	Agricultural Biodiversity			
Meetings/Seminars	Dry and Sub-humid Lands Biodiversity			
Hilights	Forest Biodiversity			
E-news	Mountain Biodiversity			
Biobrief	 Marine and Coastal Biodiversity Island Biodiversity 			
	Inland Waters Biodiversity			
About the Convention				
Convention on Biological Diversity Programmes of Work	Cross-Cutting Issues			
Cartagena Protocol on Biosafety	Access and Benefit Sharing from the Use of Genetic Resources			
Clearing-House Mechanism (CHM)	D Invasive alien Species			
Biosafety Clearing-House (BCH)	Traditional Knowledge, Innovations and Practices			
Cooperation with other Conventions	Tourism and Biodiversity			
COP Decisions	Climate Change and Biodiversity			
	Ecosystem Approach			
	 Global Strategy for Plant Conservation (GSPC) 2010 Biodiversity Target 			
Related Laws, Policies and Organizations	Global Taxonomy Initiative (GTI)			
Laws, Policies and Measures	Impact Assessment			

Status of CHM Implementation in SEA

	CHM National Focal Point	Stake- holders' Network	CHM Website Establishment						
AMS			Experts List	Colla- boration Tools	Species Data- base	PA Data- base	Remarks		
Brunei Darussalam	×	×	×	×	×	×	CHM template available c/o ACB		
Cambodia	✓	×	×	×	×	×	CHM template available c/o GDANCP		
Indonesia	~	✓	✓	 ✓ (Discussio n forum but not functional) 	✓ (limited info)	×	Species dbase not inter-operable		
LAO PDR	\checkmark	✓ (needs to be reinforced)	×	×	×	\checkmark	PA dbase not inter- operable. ACB temporary hosting website. Need to enhance & host CHM website		

- Without CHM website

- With CHM website

Status of CHM Implementation in SEA

	CHM National Focal Point	Stake- hoders' Network	CHM Website Establishment					
AMS			CHM Experts	Colla- boration Tools	Species Data-base	PA Data- base	Remarks	
Malaysia	✓	✓	× (not evident in website)	×	✓ (taxo- nomic tree only)	✓ (google maps only)	Species dbase not inter- operable	
Myanmar	✓	★ (Held its 1 st SH meeting Feb 2010)	×	×	×	×	×	
Philippines	~	✓ (BIOWEB)	× (not evident in website)	×	✓ (summary list by taxa only)	★ (list of priority conser- vation areas in pdf only	Species and PA dbase not inter- operable	

- Without CHM website

- With CHM website

Status of CHM Implementation in SEA

	СНМ	Stake- hoders' Network	CHM Website Establishment						
AMS	National Focal Point		CHM Experts	Colla- boration Tools	Species Database	PA Database	Remarks		
Singapore	~	✓	× (not evident in website)	✓ (blogs, twitter, speaker's corner, etc.)	✓ (National Red List, IAS List only)	★ (descriptive info only)	Species and PA dbase not inter- operable		
Thailand	~	✓	×	×	✓ (National Red List, species list)	×	Species dbase not inter- operable		
Viet Nam	\checkmark	×	×	×	×	×	×		

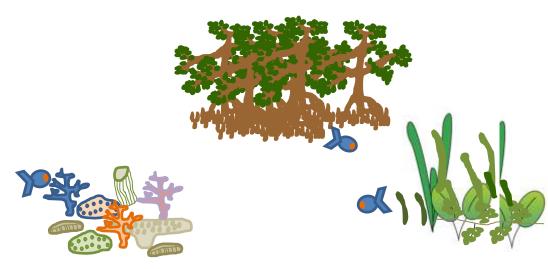
- Without CHM website

- With CHM website

Need for useful knowledge products

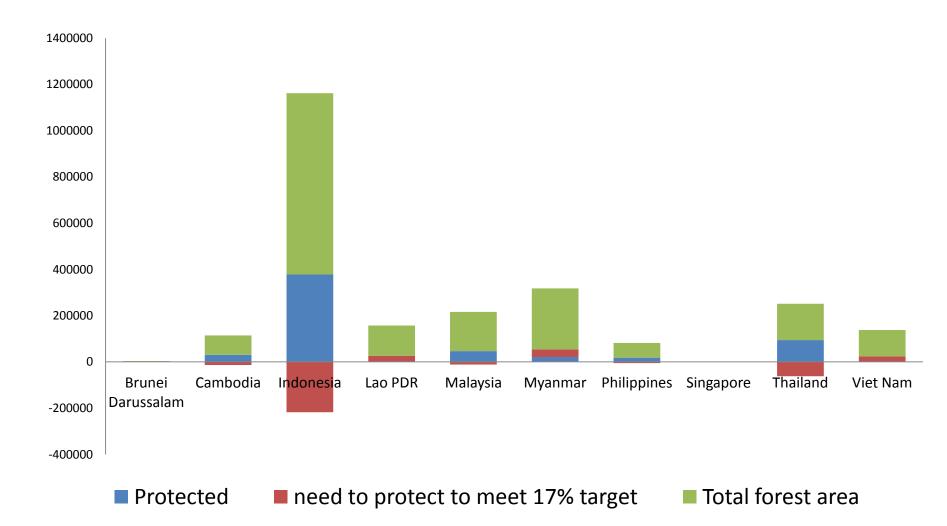
- For targeted stakeholder levels
- Research outputs translated for ease of use, decision support
- Use of current popular technology
- Easy access
- Current





Recognize and Fill the Gaps

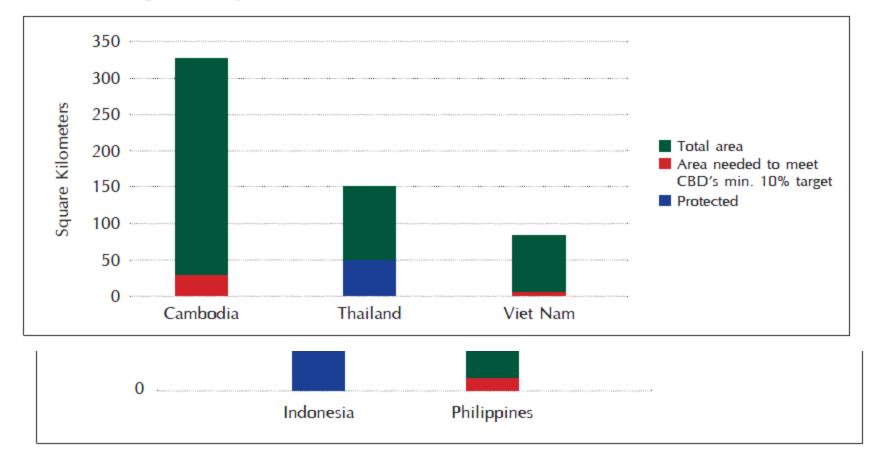
- Funding to develop <u>capacity to connect science with decision-making</u>.
- Streamline institutional responsibilities and national protected arearelated legislation.
- Provide support for existing protected areas and encourage expansion where needed.
- Establish protected areas in the right places (science-based selection) and include threatened species and their habitats to assure delivery of ecosystem services.
- Organize public awareness, communication networks and training courses on protected area management.
- Review and improve the analysis as new information becomes available



Protected – forests within protected area Source of data: Forest Resources Assessment 2010

Marine Conservation Needs

Seagrass area protection status in Cambodia, Thailand and Viet Nam



Move forward, strategically

- Conduct species inventories, organize national red lists
- Keep the information in regionally inter-operable databases
- Share information to derive national and regional analyses.
- Conduct detailed spatial analyses
 - wherein protected areas are plotted against the distribution of globally threatened species
 - identify the gaps and appropriate action for national assessed species.
- Complete KBA identification to determine the gaps and align these with new PA declarations

Scale Up Efforts

- Determine connectivity of protected areas to create a sciencebased network of protected areas in the region, consider biological ranges, and establish transboundary protected areas where necessary.
- Encourage and build regional capacity for strategic species inventories, protected area management, and organize regional knowledge to inform protected area selection and management.
- Complete KBA ID in the ASEAN Region



http://www.aseanbiodiversity.org/





 Philippine President launches UN Decade on Biodiversity for Southeast Asia



Gunung Mulu National Park - Malaysia

Species of the ASEAN