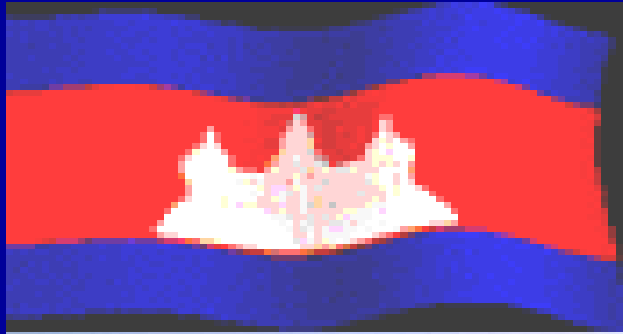




The Regional Training Workshop
Economic Valuation of the Goods and Services of Coastal Habitats
March 24 – 28, 2008
Samut Songkram Province, Thailand



Kingdom of Cambodia



ANGKOR WAT

Mangrove forest situation in Cambodia

N Cambodia



THAILAND

LAOS

CAMBODIA

VIETNAM

Gulf of Thailand

South China Sea



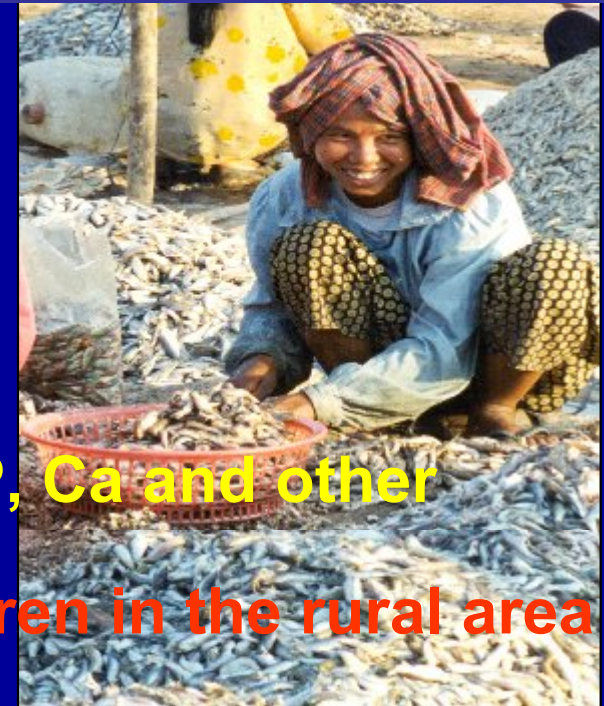
CAMBODIAN SITUATION

- Religions : Buddhism**
- Population : 11,426,223 ('98)
~16millions ('08)**
- Life expectancy : 57 years old**
- Total Land : 181,035 Sq.km**
- Literacy ratio : 67.3%**
- GDP per capita : 297US\$**



Fish consumption in Cambodia

- In floodplain areas: ≈ 67 kg/ person/ year
- Nation-wide: ≈ 25 -30 kg/ person/ year
- Coastal area: ~ 13.5 kg/person/year
- Main source of protein, Calcium, Vitamins, P, Ca and other minerals...etc. They are the best milk for children in the rural area



Cambodia's Commercial Fish Production (tons) by Major Fishery, 1990 – 2004

Year	Total*	Inland	Marine	Aquaculture#	Value** (US\$ mil lion)	% of GDP	People employed
1990	111,400	65,100	39,900	6,400	187.9	9.7	48,697
1991	117,800	74,700	36,400	6,700	165.2	9.2	50,070
1992	111,150	68,900	33,700	8,550	155.1	7.5	73,622
1993	108,900	67,900	33,100	7,900	151.9	7.9	89,120
1994	103,200	65,000	30,000	8,200	140.6	5.9	92,251
1995	112,510	72,500	30,500	9,510	147.6	5.1	104,571
1996	104,310	63,510	31,200	9,600	138.9	4.5	99,836
1997	114,600	73,000	29,800	11,800	140.8	4.6	92,817
1998	122,000	75,700	32,200	14,100	152.1	5.4	111,300
1999+	284,100	231,000	38,100	15,000	227.2	11.4	139,490
2000+	296,041	245,600	36,010	14,431	237.6	***	166,730
2001+	444,500	385,000	42,000	17,500	-	***	501,395
2002+	424,400	360,300	45,850	18,250	-	***	812,582
2003+	297,945	216,645	55,000	26,300	-	na	641,401
2004+	326,635	250,000	55,800	37,675	-	na	571,012

Mangrove forest and Inland flooded forest area from 1973-2002 (ha)

1973-76	1985-87	1992- 93	2002	Other
Inland flooded forest area				
937,300	823,600	630,500	335,805	
Mangrove forest (Marine flooded forest)				
94,600	68,500	85,100	83,600	

Mangrove situation in provincial-cities

No	Provincial-cities	Area (ha)	Area degradation (ha)	Other
1	Sihanoukville	13,500	937	
2	Kok Kong	63,700	48	
3	Kampot	7,900	190	
4	Kep	800	144	
	Total	85,899	1,319	

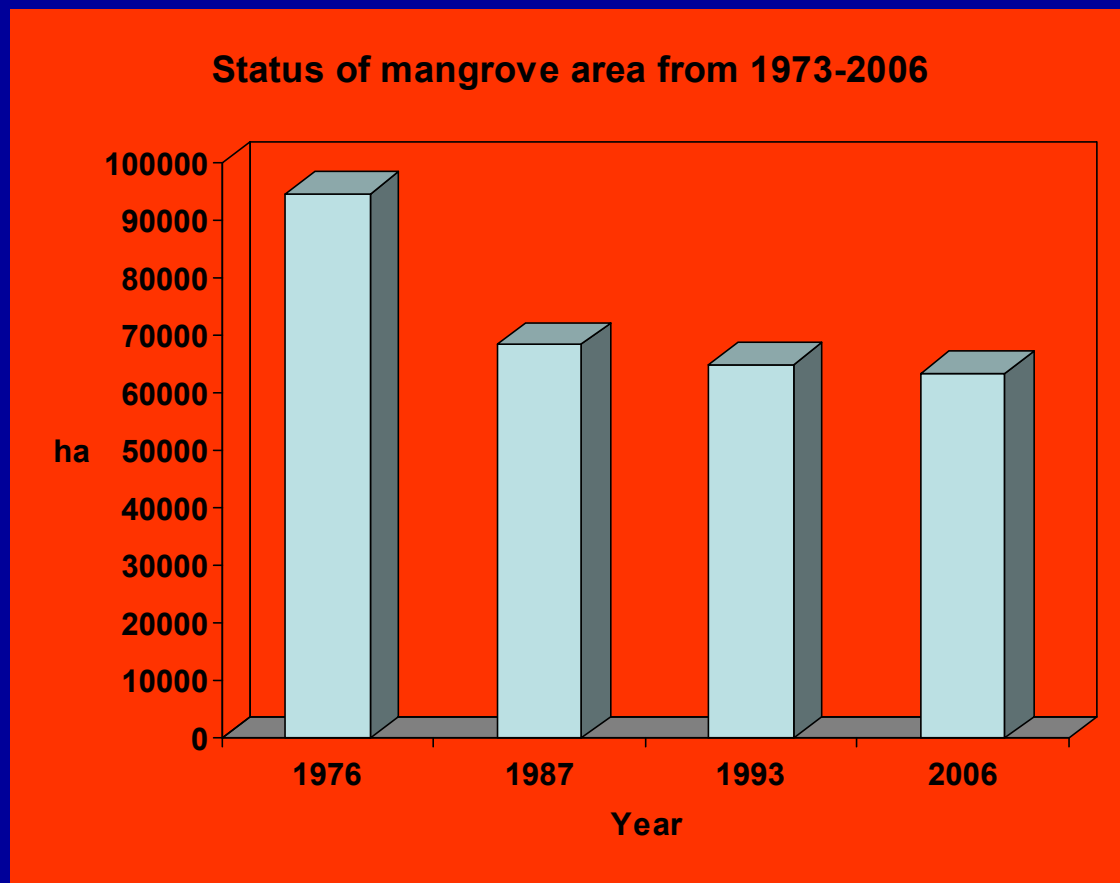
Mangrove Deforestation and Management

- Importance of mangrove forest
 - in 1973/1976 mangrove forest covered 94,600 ha (30 species)
 - play an essential role in the survival of some fish species and other marine organisms serving as spawning or nursery grounds
 - also play an essential role in protecting the coastline, acting as a self-maintenance buffer zone against storm, strong winds and reducing coastal erosion



Mangrove Deforestation and Management

- **Treat to mangrove area**
 - land encroachment
 - illegal logging
 - urbanization
 - coastal development
 - salt farming
 - intensive shrimp farming



Mangrove Deforestation and Management

- **Action to manage mangrove forest**
 - Increase public awareness
 - Establishment of community fisheries to conserve the forest within the community area
 - Day to day watch by fisheries official, community member, local authorities
 - Demarcation of mangrove area boundary
 - Confiscate the illegal encroachment
 - 1,023 ha were confiscated
 - Replanting mangrove forest
 - 75 ha of mangrove area were replanted
 - 150 ha in plan





Rhizophora mucronata and
conjugata

NATIONAL ACTION PLAN FOR CORAL REEF AND SEAGRASS MANAGEMENT IN CAMBODIA 2006 - 2015

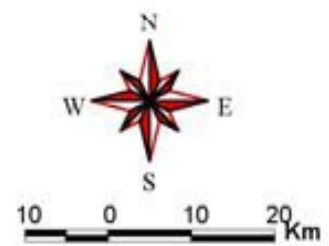
The total estimated budget for 10 year implementation is 3,122,500 USD. This National action plan also includes monitoring and evaluation and details activities to achieve the goal and objectives.

Map of Coral Reef Distribution in Cambodia



LEGEND

-  Provincial boundary
-  National road
-  Rivers
-  Islands
-  Water body
-  Coral Reef
-  Provincial Centers



Map of Seagrass Distribution in Cambodia

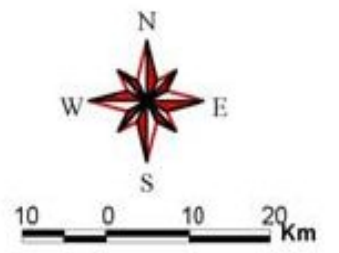


LEGEND

-  Provincial boundary
-  National road
-  Rivers
-  Islands
-  Water body
-  Seagrass Area
-  Provincial Centers
-  Commune Centers

"Cambodia's Coral Reef and Seagrass Sup-Components of the South China Sea Project (UNEP/GEF)"

DISCLAIMER
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High-level Indicators for Monitoring and Evaluation of Coral Reef and Seagrass Management in Cambodia.

OBJECTIVE

1: To implement national policy, legal and administrative framework to reduce the degradation of coral reefs and seagrass and maintain their multiple benefits and uses

OUTCOME

- National policy, legal and administrative framework implemented
- Reduced incidence of illegal activity at least 50%

OBJECTIVE

2: To establish management models to ensure sustainable use of coral reefs and Seagrass

OUTCOME

- Management and advisory bodies Implemented

OBJECTIVE

3: To establish research and monitoring facilities to monitor coral reef and seagrass status to support conservation and Management

OUTCOME

- Research facilities equipped
- Ongoing monitoring of coral reef and seagrass

OBJECTIVE

4: To build cross-sectorial capacity for sustainable coral reef and seagrass management at national and local levels

OUTCOME

- Adequate numbers for coral reef and seagrass management trained with national and local capacity in place.
- Capacity at national and local level available and sustainable.

OBJECTIVE

5: To increase awareness of managers and communities on the ecological roles and economic values of seagrass and coral reefs to realize the balance between utilization and conservation of these resources

OUTCOME

- Overall awareness increased about 60% to reduce damage from human impacts

OBJECTIVE

6: To create financial sustainability and improve economic status of coastal Communities local communities

OUTCOME

- Local communities involved in new economic activities
- Improved livelihoods of local communities

- The total area of reefs has been estimated as 28.065km². Diversity studies to date indicate 70 species of coral in 33 genera and 11 families.
- While average live coral cover for the whole coastline was estimated to be 23% to 58%
- Extensive seagrass beds have been reported in waters adjacent to Kampot Province and Kep Municipality, with seagrass and/or mixed seagrass and *Caulerpa* beds found along the entire coast to the Cambodia-Vietnam border.

Cambodia's target is to put at least 8.4 km² of coral reefs and 90 km² of seagrass under an appropriate form of sustainable management by 2016

Thank you very much for your attention...!

