



Implementing the Strategic Action Programme for
THE SOUTH CHINA SEA AND GULF OF THAILAND
(SCS SAP) Project

CAMBODIA
National Profile

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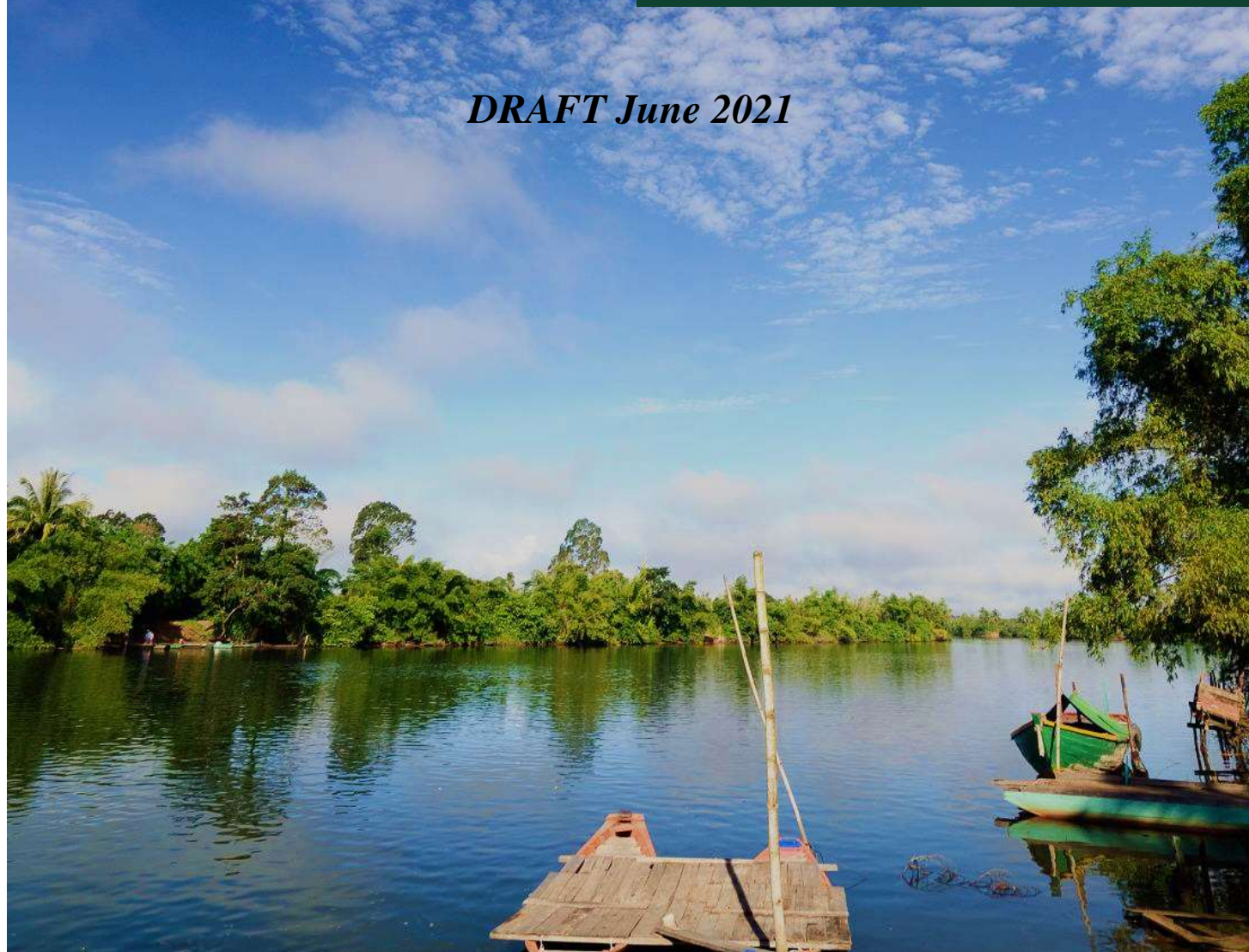


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1. INTRODUCTION

The South China Sea is a semi-enclosed sea, which supports a number of unique habitats and ecosystems that are amongst the most biologically diverse shallow water marine ecosystems globally. The richness and productivity of the South China Sea and associated environments are, however, seriously threatened by high population growth, pollution, overharvest and habitat modification, resulting in high rates of habitat loss and impairment of the regenerative capacities of living resources. The socio-economic impacts of environmental deterioration are significant for the economies of this region.

Recognising that actions were urgently needed to halt degradation of the environment of this marine basin, the countries of the region sought the assistance of UNEP and the Global Environment Facility (GEF) and the project “[Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand](#)” was implemented from 2003-2008. This included a Transboundary Diagnostic Analysis of the issues and problems and their societal root causes as the basis for development of a Strategic Action Programme (SAP) which was inter-governmentally adopted in 2008. The SAP established a series of objectives and priority costed actions for coastal habitats, land-based pollution management, and the over-exploitation of fish stocks in the South China Sea.

In order to support implementation of the SAP, the UNEP GEF “Implementing the Strategic Action Programme for the South China Sea and Gulf of Thailand” (SCS SAP) Project was submitted and endorsed by the GEF in 2016, and began implementation in 2019. The objective of the Strategic Action Programme for the South China Sea and Gulf of Thailand (SCS SAP Project) is:

“To assist countries in meeting the targets of the approved Strategic Action Programme (SAP) for the marine and coastal environment of the South China Sea (SCS) through implementation of the National Action Plans in support of the SAP, and strengthening regional co-ordination for SCS SAP implementation.”

This will be achieved through the cooperation of participating countries, intergovernmental organizations, regional organizations, public-private sectors partnerships, civil society and non-governmental organizations (NGOs), leading scientists from the region. The project will also contribute to global targets such as the Sustainable Development Goals and Agenda 2030 and the Convention on Biological Diversity (CBD) Post 2020 Biodiversity Framework.

This current document is based on the national reports, TDA and SAP prepared between 2005-2008 and presents SAP targets adopted. Countries are in the process of further refining their national activities for implementation from 2021-2024.

2. STATUS AND TRENDS IN COASTAL HABITATS AND THEIR MANAGEMENT

2.1 Distribution and diversity of coastal habitats

Mangroves: Cambodia contributes less significantly to the overall total of mangrove in the South China Sea (72,400 ha of the total 1.7 million ha). Cambodia is the lowest in terms of species richness with 16 true mangroves of the total 45 observed in the South China Sea. In terms of areal extent, notable mangrove site in Cambodia is located in Peam Krasop in Koh Kong Province (25,800 ha).



Coral Reefs: Southeast Asia is recognised as the global centre of coral reefs, both in terms of areal extent and species diversity. Of the 750,000 ha of coral reef identified in the South China Sea, around 2,807 ha is located in coastal waters of Cambodia. In terms of diversity at individual localities, no hotspots of coral species richness of more than 200 species occur in Cambodia. Significant coral reef sites include Prek Ampil (953 ha), Koh Sdach archipelago (529 ha), and Koh Rong archipelago (468 ha).



Seagrass: Of the 78,332 ha of known seagrass sites in the South China Sea, around 33,814 ha (43 percent) is located in the coastal waters of Cambodia. The largest area of seagrass meadows identified in the South China Sea to date is in the coastal waters of Kampot Province (25,200 ha). The transboundary water area between Cambodia and Viet Nam, including the large connected seagrass meadows of Kampot and Phu Quoc archipelago, contain possibly the largest seagrass bed in the South China Sea (37,700 ha). Of the 18 species of seagrass found in the coastal waters of the South China Sea, 9 are present in waters of Cambodia. *Halophila* is the most diverse and widespread genus in coastal waters throughout the region.

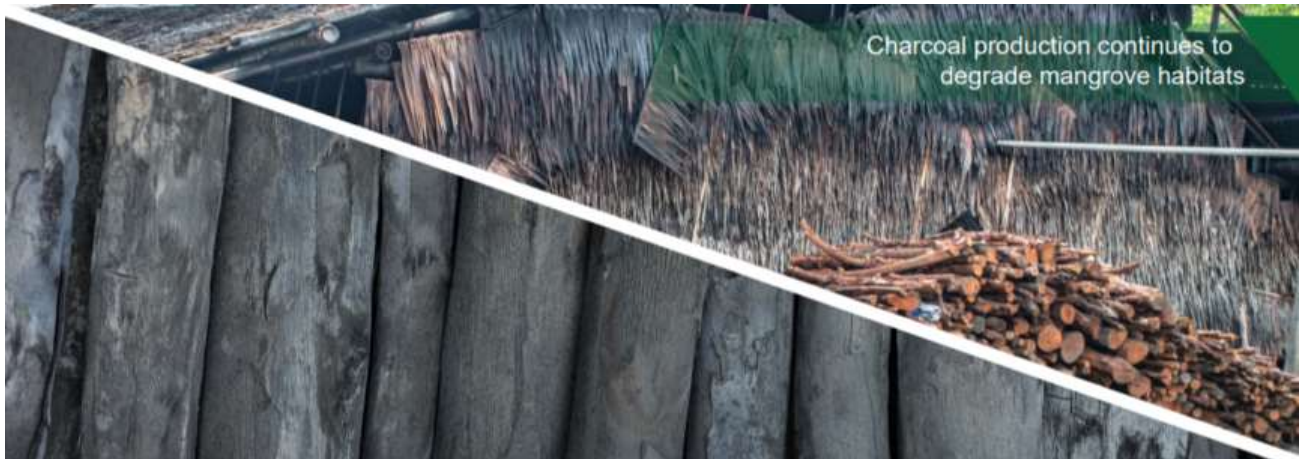


Coastal wetlands: Of the total wetland area of 4,201,145 ha identified in the South China Sea, around 77,202 ha is found in Cambodia. Estuaries, lagoons, peat swamps, non-peat swamps and inter-tidal flats are dominant features of Cambodia's coasts. The Koh Kapik Ramsar in Koh Kong Province (12,000 ha) is the significant estuarine area. The priority lagoon is the Beoung Ka Chang (4,503 ha). Significant peat swamps include the Prek Kampong Bay in Kampot Province (16,250 ha) and Prek Kampong Som Shanoukeville (10,800 ha) with the Kampong Trach in Krong Kep (7,500 ha) and Prek Toek Sap (21,259 ha) as significant non-peat swamps. Of the inter-tidal flats, the Ruer Sey Srock Toul Srav Gnamin Krong Kep (4,890 ha) is of national significance.



2.2 Threats to coastal habitats

Threats to mangroves: Conversion of mangrove to land for industrial purposes (including harbour construction) has grown over the last ten years but unimportant in Cambodia. Charcoal production continues to degrade mangrove in Cambodia, despite legislation banning all harvesting of mangroves. Trade in charcoal derived from mangrove was a major cause of mangrove loss in the areas of Cambodia close to the Thai border. Mangrove degradation causes losses in direct and indirect economic values that support socio-economic development on both local and national scales.



Threats to coral reefs: The Cambodia National Report on Coral Reef outlined the many anthropogenic impacts causing damage to the coral reefs. These include destruction of coral from anchors, dynamite fishing, discarded fishing gear, and seaweed farming. The report also outlined the many potential threats to coral reefs such as coastal development, marine-based pollution, sedimentation, over-fishing, and destructive fishing. Regionally significant threats to coral reefs in the South China Sea have been identified to include over-fishing, the use of destructive fishing techniques, pollution (mainly eutrophication) and increased sedimentation. Indirect causes of these threats are unsustainable practices in the fisheries sector, coastal development, deforestation and unsustainable tourism. Coral bleaching is also considered a serious threat to coral reefs in the region. Direct and indirect threats to coral reefs in Cambodia are ranked in order of their significance in Table 1.

Table 1. Direct and indirect threats to coral reefs in Cambodia (ranked order of significance)

DIRECT THREATS	INDIRECT THREATS
1. Overfishing	1. Unsustainable fisheries and aquaculture
2. Destructive fishing	2. Coastal development
3. Pollution (eutrophication)	3. Deforestation of upland areas
4. Sedimentation	4. Unsustainable tourism
5. Coral bleaching	



Threats to seagrass: The Cambodia National Report on Seagrass outlined the threats to seagrasses such as destructive fishing practices particularly demersal trawling, push netting, and other active fishing gears that damage seagrass and disturb sediments. Decline in water quality associated with agricultural use of fertilisers and pesticides, and increased erosion from unsustainable logging practices also threaten seagrass. Fertilisers can encourage the growth of algae that out-compete seagrass or epiphytic algae that reduce the ability of seagrass to photosynthesise, often leading to dieback. Erosion from poor land use can result in increased water turbidity which reduces the quantity of sunlight reaching seagrass plants, diminishing the photosynthetic capacity of the plants. The key threats to seagrass in ranked order of their significance to basin level loss of this dominant coastal habitat, considering the key regional six threats to seagrass, include:

- Destructive fishing such as push nets and trawls
- Over-fishing
- Wastewater effluent
- Sedimentation from coastal development
- Coastal construction
- Nutrients (eutrophication)



Threats to coastal wetlands: The Cambodian Coastal Wetlands Strategy and Action Plan (2004) has outlined issues and challenges including threats to mangrove wetlands as follows: illegal logging by local authorities for timber resulting to deforestation and increased sedimentation in rivers and coastal zones; reclamation for shrimp aquaculture and salt farm production; conversion and reclamation for other uses like agricultural and settlement use; illegal fishing using trawler boats and push nets; unsustainable charcoal production; and pollution from fertilizers and pesticides use. The Cambodia National Report on Wetlands has also identified pollution from construction activities as a threat to estuaries and mudflats as it causes the inflow of water, which either erodes these wetland areas or prevents further deposition.

Major threats to the coastal wetlands of Cambodia can be grouped as follows: loss of wetland areas through conversion for agriculture, aquaculture, port and harbor development, human settlement, tourist development, urbanization, industrialization. Wetland ecosystems are also highly degraded as a result of over-exploitation of living resources, use of inappropriate fishing techniques and gear, pollution, deforestation in upland area, invasive species, global trends and natural episodic events such as sea-level rise, typhoons.



2.3 Management of coastal habitats in Cambodia

Mangrove management

In Cambodia, the total area of mangroves is 72,400 ha under various forms of management as evaluated in the National Action Plan (2008). Table 2 presents the estimated areas of mangroves under different forms of land-use designation and management in Cambodia.

Table 2: Estimated areas of mangrove under different forms of land-use designation and management in Cambodia

Land-use designation and management	Area (ha)
Total area (ha)	72,400
Production forest	0
Conversion	0
Parks & Protected Areas (Conservation) non-extractive use	13,600
Non-use of mangrove but extractive resource use (fish, crabs etc.)	58,800
Private land, unregulated use	0
Area currently under management Regulated in laws/regulations	13,600
Areas estimated as currently under sustainable management	13,600

It is noted that in Cambodia, areas considered as currently being sustainably managed include all mangrove lands contained within National Parks and Protected Areas (13,600 ha). Of the mangrove area (58,800 ha) used for extractive use of non-mangrove resources (e.g. fish and crabs), only 8,820 ha of this is deemed to be sustainably managed, largely due to constraints in enforcing laws and regulations governing direct use of mangrove and emerging threats associated with reclamation and infrastructure development and pollution from shrimp farming. Accordingly, 22,420 ha of the total 72,400 ha (or 31 percent) of Cambodia's mangroves are deemed to be sustainably managed.



The key challenges for mangrove conservation and in achieving sustainable management of mangrove were outlined in Cambodia's National Action Plan for Mangroves (2004) as follows: low awareness among local people on mangrove importance and their conservation and sustainable management needs; absence of specific legal, regulatory and managerial tools, and law enforcement weakness; lack of political wills among and abuses by high rank people; lack of funds/insufficient supports from external sources; low capacity among government staff for mangrove sustainable management; difficult access and facility shortage to the target localities; and poor conditions of responsible staff. Major threats to mangroves were as follows: fast population growth since after the civil war, and associated issues – poverty, settlement and urgent survival needs of local people; increased demands in mangrove charcoals and shrimp culture leading to the degradation and destruction of mangrove forests/unsustainable uses of mangroves; and growing needs for national economic development/foreign investments.

There was no information available as to the status of the NAP implementation. In terms of the progress in achieving the SAP targets at the national level, a Royal decree has long been issued on 23 protected areas and national parks in 1993. The decree, however, did not clearly identified mangroves as National Park or Protected Areas. Recently, Cambodia plans to develop management plans for the Ream National Park mangrove forest,

the Peam Krasoab wildlife sanctuary, the Dang Peng multiple use area, and the Botum Sakor National Park, including replanting of mangrove areas in Peam Krasoab and Toul Korki Communes in Koh Kong Province, Prey Nob District in Preah Sihanouk Province, and in Kampot and Kep Provinces, with enrichment planting in identified areas in Koh Kong and Preah Sihanouk Provinces.

Coral reef management

In Cambodia, 7 sites were identified as the significant coral reef sites with a total area of 2,808 ha, including: Prek Ampil, Koh Sdach archipelago, Koh Tang archipelago and Koh Rong archipelago. Table 3 presents the status of management at these sites. Of the total coral reef area at the seven target sites of 2,808 ha, it is estimated that 10 percent (293 ha) is under some form of management. While management information is available for all seven sites, only one site is being managed, with the effectiveness of that management being rated as medium.

Table 3: Management status of priority coral reef sites of the Strategic Action Programme in Cambodia

Site name	Area (ha)	Live coral cover (%)	Management legal status	Area under management (ha)	Management effectiveness ¹
Cambodia	2,808			293	
Koh Kong archipelago	73	47	Fisheries Management Area (FMA)	0	
Koh Sdach archipelago	529	29	Proposed MPA	0	
Koh Rong archipelago	468	23	Proposed MPA	0	
Koh Takiev archipelago	293	58	National Park	293	Medium
Koh Tang archipelago	439	38	FMA	0	
Prek Ampil	953	53	FMA	0	
Koh Pouh archipelago	53	41	FMA	0	

¹ Categories of Management Effectiveness: Low: Area declared or proposed to be declared for management; Management Plan developed and approved. Medium: Existing Management Framework is implemented with inadequacy of manpower, finance and/or equipment: High: Existing Management Framework is implemented with enough trained manpower, equipment, facilities and sustainable finance.



Considering the increasing threats to coral reefs in the country, existing laws and regulations for coral reef management in Cambodia are insufficient. There is no law that explicitly relates to coral reef management. Most laws relate to the protection of fisheries rather than coral reefs and there is still a lack of clear policies and regulations for the management of these resources with overlapping responsibilities among concerned government agencies. There is also limited capacity, infrastructure, and finances to conduct regular scientific research and monitoring and awareness campaigns.

There was no information available as to the status of the NAP implementation. In terms of the progress in achieving the SAP targets at the national level, Cambodia plans to rehabilitate the coral reef in Koh Rong and Koh Ses islands including the development of management plan for Koh Rong island and Koh Thmey island in Ream National Park.

Seagrass management

In Cambodia, there existed 2,000 ha under some form of management in four known seagrass sites with a total area of 33,814 ha. The areas and status of management at these sites are summarized in Table 4.

Table 4: Status of known seagrass sites in Cambodia's coastal waters

Name	Area (ha)	Legal Status	Area under Management	Management Effectiveness
Cambodia	33,814		2,000	
Kampong Sam Bay	164	None	No	N/A
Chroy Pros	3,910	Provincial designated MPA	2,000	Medium
Kampot	25,240	Proposed fish Sanctuary	No	N/A
Kep Beach & Koh Tonsay	4,500	None	No	N/A

The National Action Plan for Coral Reef and Seagrass Management in Cambodia (2006-2015) identified the lack of clear policies and regulations for seagrass management in Cambodia including overlapping of responsibilities among departments in all coastal provinces, creating confusion amongst departments and personnel. There was no information available as to the status of the NAP and SAP implementation since 2008.

Coastal wetland management

In Cambodia, the total area of wetlands is 77,202 ha with five types of wetlands as following: estuary (12,000 ha), peat swamps (27,050 ha), non-peat swamps (28,759 ha), lagoon (4,503 ha) and inter-tidal flat (4,890 ha). Table 5 presents the areas and management status of wetlands types in Cambodia.

Table 5 Legal and management status of known inter-tidal mudflats, estuaries, coastal lagoons and coastal peat swamps in Cambodia.

Name of site	Area (ha)	Legal and Management Status		
		Protected – Non-use (Subsistence/commercial)	Sustainable use	Non-sustainable use
Estuaries				
Koh Kapik Ramsar in Koh Kong Province	12,000	National Park and RAMSAR site	N.A.	N.A.
Peat Swamps				
Prek Kampong bay in Kampot Province	16, 250	National Park	N.A.	N.A.
Prek Kampong Som Shanoukeville	10, 800	National Park	N.A.	N.A.
Non-peat Swamps				
Kampong Trach in Krong Kep	7,500	National Park	N.A.	N.A.
Prek Toek Sap	21,259	National Park	N.A.	N.A.
Lagoons				
Beoung Ka Chang	4, 503	National Park & RAMSAR site	N.A.	N.A.
Inter-tidal flats				
Ruer Sey Srock Toul Srav Gnamin Krong Kep	4,890	National Park	N.A.	N.A.



The national report noted that there is no further or limited data and information on wetlands in terms of physical, biological, environmental and socio-economic data and information. Most information focuses on socio-economic and health issues, which are the immediate objectives to help people to survive, while environmental issues are secondary objectives. No adequate studies have been made about the location, extent, and significance of wetland areas in Cambodia. Also, authorities have limited knowledge and skills in gathering, managing and sharing data and information on wetlands, due to lack of understanding of its importance and mechanisms for disseminating data and information.

There was no information available as to the status of the NAP implementation since 2008. In terms of the progress in achieving the SAP targets at the national level, Cambodia plans to develop management plan for Boeung Prek Tub Fresh Water Conservation Area in Preah Sihanouk province.

3 SAP TARGETS AND PLANED ACTIONS

3.1 Mangroves

The Strategic Action Programme targets for mangroves in Cambodia focus on: improving the management of mangrove areas utilized for the sustainable use of mangrove resources. This will be achieved via the development and implementation of sustainable use management plans for 49,900 ha of mangroves, as well as the reform of laws and regulations for the sustainable use of mangrove areas in Cambodia. This aims to increase the total area of mangrove being managed effectively on a sustainable use basis from 22,420 to 72,320 ha. The Strategic Action Programme targets also focus in the enrichment planting of 2,500 ha of mangrove to increase biodiversity. Table 6 details the specific Strategic Action Programme targets for mangrove in Cambodia

Table 6: Strategic Action Programme targets for future mangrove management in Cambodia

SAP targets and SCS SAP Outputs	Area (ha)
1.1.1 Declaration of 57,400 ha of mangrove as National Parks and Protected Areas	0
1.1.2 Designation and plans for the management of 166,600 ha of mangrove as non-conversion, sustainable use areas	0
1.1.3 Reform of laws and regulations for the sustainable use of 602,800 ha of mangrove forest	49,900
1.1.4 Replanting of 21,000 ha of deforested mangrove land	2,500
1.1.5 Biodiversity increased for 11,200 ha of mangrove forest via enrichment planting	0
1.1.6 Established mechanism for monitoring management, ecological and socio-economic indicators at 26 sites [based on SAP results framework]	52,400

To meet these targets, Cambodia plans to develop management plans for the Ream National Park mangrove forest, the Peam Krasoab wildlife sanctuary, the Dang Peng multiple use area, and the Botum Sakor National Park, including replanting of mangrove areas in Peam Krasoab and Toul Korki Communes in Koh Kong Province, Prey Nob District in Preah Sihanouk Province, and in Kampot and Kep Provinces, with enrichment planting in identified areas in Koh Kong and Preah Sihanouk Provinces.

The development of Cambodia is oriented towards poverty reduction through accelerated economic growth, environmental sustainability and social equity. Thus, Cambodia's vision for mangrove is 'Equitable economic prosperity and improved quality of life through sustainable use, protection and management of mangrove'. Its mangrove mission statement is 'To use, protect and manage mangrove for sustainable development in Cambodia' to be achieved through the following general goals:

- Protecting and maintaining mangrove products, functions and their attributes systems by monitoring and protecting water quality and level, biodiversity and site's ecology with community liaison;
- Managing the human activities and their widely utilizing the mangrove resources in the optimal way that preserves for the long term of the basic natural resources and environment, which are necessary for sustainable development and human life; and
- Ensuring that the benefits coming from the sustainable use of the mangrove is widely use with equity and contribute to poverty reduction and improve quality of life for all.

To achieve Cambodia's vision and mission, the NAP implementation will focus on the following strategies:

- Research and monitoring through resources assessment and mapping, socio-economic and cultural assessment, database management information system including decision support system.
- National policy, legal and institutional arrangement and coordination through integration of research programmes with management and policy-making, monitoring of NAP, review and improving existing laws and policies, integration of related government agencies, stakeholder analysis and involvement, community empowerment, strengthening traditional values and management system, establishing incentive system for good governance, and regional and international linkages.
- Public awareness, communication and education through improve government services, use of multimedia system, integration of mangrove information in school programmes, and development, improvement and dissemination of information and education materials.
- Capacity building and sustainability and resource and habitat management.

3.2 Coral Reefs and Seagrass

Seven sites were selected as the target coral reef sites for SAP implementation in Cambodia, including: Koh Kong archipelago, Koh Sdach archipelago, Koh Rong archipelago, Koh Takiev archipelago, Koh Tang archipelago, Prek Ampil, Koh Pouh archipelago. The targeted coral reef area to be added for management through SAP implementation is 1,970 ha, bringing the total area across the seven sites under management to 2,263 ha. The implementation of the Strategic Action Programme also aims to increase the management effectiveness across all seven sites from non-existing and/or medium to high.

At the site and national levels, activities will include: supporting building management capacity (number/levels human resources, facilities and equipment, and sustainable financing mechanisms) for the 7 coral reef sites; improving management approaches (integrated, community-based, multiple use) at 7 coral reef sites; developing management tools (licensing and permit systems, seasonal closures, zoning) in support of legal and regulatory reforms to address key threats at the 7 priority sites; and establishing mechanisms for monitoring management, ecological and socio-economic indicators at the 7 coral reef sites. These are all aimed at increasing management effectiveness and assisting in achieving the coral reef related target of the Strategic Action Programme which is aimed at reducing the decadal loss of live coral cover in the South China Sea from 16 to 5 percent.

Table 7: Targets of the Strategic Action Programme for coral reefs in Cambodia's coastal waters

SAP targets and SCS SAP Outputs	Site / Area (ha)
1.2.1 Management capacity built for 46 coral reef sites	Koh Kong archipelago Koh Sdach archipelago Koh Rong archipelago Koh Takiev archipelago
1.2.2 Management approaches and policy, legal & institutional reforms (integrated, community-based, multiple use) improved at 46 coral reef sites	
1.2.3 Management tools (licensing and permit systems, seasonal closures, zoning) developed and utilized to address key threats at priority sites	
1.2.4 Established mechanism for the monitoring of management, ecological and socio-economic indicators at 46 sites	
Total coral reef area in Cambodia	2,808
Total coral reef area at 7 sites	2,808
Coral reef area to be supported in SCS SAP project	2,260

In Cambodia, the Strategic Action Programme identifies four known seagrass sites with a total area of 33,814 ha, of which 2,000 ha are under some form of management. The Strategic Action Programme targets two seagrass sites and will result in an increase in seagrass area under management by 11,446 ha. These two sites are located at: Kampot and Kep Beach and Koh Tonsay. The areas and status of management at these sites is summarized in Table 7.

Table 8: Targets of the Strategic Action Programme for seagrass in Cambodia's coastal waters

SAP targets and SCS SAP Outputs	Site / Area (ha)
1.3.1 Twenty-one seagrass areas totalling 15,848 ha under sustainable management with supporting laws and regulations	Kampot Kep Beach & Koh Tonsay
1.3.2 Amended management plans for 7 existing MPAs with significant seagrass areas, to include specific seagrass-related management actions and policy, legal & institutional reforms	
1.3.3 Designation of 7 new Marine Protected Areas focusing on seagrass areas	
1.3.4 Established mechanism for monitoring management, ecological and socio-economic indicators at 21 sites	
Total seagrass area in the target sites (ha)	33,814
Target for management through the SCS SAP project	11,446

Specific national activities will include putting under sustainable management with supporting laws and regulations two seagrass areas totalling 2,808 ha, amending national management plans for existing MPAs with significant seagrass areas, to include specific seagrass-related management actions, designating new Marine Protected Areas focusing on seagrass areas identified in the prioritized listings of the SCS Project and establishing mechanisms for monitoring management, ecological and socio-economic indicators at 4 sites.

Cambodia will also engage in undertaking the relevant national reforms for seagrass management, including the development of supporting policy, legal and institutional frameworks.



The National Action Plan for Coral Reef and Seagrass Management in Cambodia (2006-2015) focused on the protection and management of coral reef and seagrasses to ensure sustainable fisheries resource utilization and development for the reduction of poverty and improve quality of life for all Cambodians. The implementation of NAP will focus on the following objectives:

- Implement national policy, legal and administrative framework to reduce the degradation of coral reefs and seagrass and maintain their multiple benefits and uses
- Establish management models to ensure sustainable use of coral reefs and seagrass
- Establish research and monitoring facilities to monitor coral reef and seagrass status to support conservation and management
- Build cross-sectorial capacity for sustainable coral reef and seagrass management at national and local levels
- 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
- Create financial sustainability and improve economic status of coastal local communities

3.3 Coastal wetlands

In Cambodia, Strategic Action Programme implementation will result in the adoption and implementation of management plan for Koh Krapik Ramsar estuary (12,000 ha) in Koh Kong Province. This includes the declaration of wetland areas with protection status and needed management reforms, and adoption of a regional estuary monitoring scheme for national implementation.

Table 9: Targets of the Strategic Action Programme for wetlands in Cambodia's coastal waters

SAP targets and SCS SAP Outputs	Site / Area (ha)
1.4.1 Integrated management plans developed and under implementation for at least 3 lagoons (26,818 ha), 9 estuaries (614,680 ha), 5 tidal flats (96,903 ha), 1 peat swamp (45,700 ha) and 1 non-peat swamp (9,808 ha)	Koh Kapik Ramsar, Koh Kong Province (estuary)
1.4.2 Declaration of at least 7 wetland areas with protection status (i.e. non-hunting area, nature reserves, protected areas, Ramsar Sites).	
1.4.3 Adoption of a regional estuary monitoring scheme and its national implementation	
Total wetland area in the target site (ha)	12,000

As provided in the Wetlands Strategy and Action Plan, the development of Cambodia is oriented towards poverty reduction through accelerated economic growth, environmental sustainability and social equity. Thus, Cambodia's vision for wetland is 'Equitable economic prosperity and improved quality of life through sustainable use, protection and management of wetland'. Its wetland mission statement is 'To use, protect and manage wetland for sustainable development in Cambodia' to be achieved through the following general goals:

- Protecting and maintaining wetland products, functions and their attributes systems by monitoring and protecting water quality and level, biodiversity and site's ecology with community liaison;
- Managing the human activities and their widely utilizing the wetland resources in the optimal way that preserves for the long term of the basic natural resources and environment, which are necessary for sustainable development and human life; and
- Ensuring that the benefits coming from the sustainable use of the wetland is widely use with equity and contribute to poverty reduction and improve quality of life for all.

The NAP implementation will focus on the following strategies and actions:

- National legal, institutional and policy framework through the review and analysis of policies and legislations and institutional mechanisms on wetland management including recommendations for management;
- Wetland assessment, research and inventory through the development of standard methodology and guideline for assessment and inventory including conduct of stakeholders' analysis and site surveys, and research and development of new approaches for wetlands management
- Wetland restoration and management through wetlands characterization and mapping, and action plans development including the development, implementation, monitoring and evaluation of site management plans;
- Wetland public awareness and education through the development of awareness raising and training programmes including the production of information, education and communication materials for schools and ecotourism activities
- Community development support through the development of community action plans
- Human resources development through the development of awareness raising and training programmes for government authorities, civil societies and non-governmental organizations to increase awareness and build capacity on wetlands management; and
- Wetland data and information through the establishment of a wetland data management system.

3.4 Land-based pollution management

National level activities will support the: reviews of legislative and institutional frameworks for land-based pollution management in participating countries; harmonization of national Standard Operating Procedures for land-based pollution control and management, including agreed sediment, biota, and water quality criteria; revision of national/provincial policies; development, enactment and implementation of supporting regulations for land-based pollution; and the updating and adoption of National Action Plans, including institutional reform and sustainable financing strategies, for land-based pollution management in the SCS.

The Strategic Plan for Land-based Pollution Management for 2006-2010 and Beyond (2005) outlined the challenges and constraints faced by Cambodia such as overlapping roles and functions and limited cooperation between institutions; inadequate legislation, guidelines and standards for pollution substances and disposal; lack of knowledge and awareness on environmental pollution issues. It also outlined the strategic directions and goals, and action plans for land-based pollution management.

The strategic goals are:

- Develop and implement policies and guidelines related to land-based pollution management
- Develop activities for information and scientific data collection related to marine water quality and update
- Prepare and implement plan to determine marine pollution hotspots and to take measures for prevention land-based pollution
- Provide and strengthen National Capacity for land-based pollution management
- Raise public awareness and promote public participation for preventing and combating of land-based pollution
- Develop and implement program for diversification funding



4 NATIONAL BASELINE INFORMATION AND DATA

4.1 National reports and publications

During implementing the SCS Project, the detailed national reports on mangroves, coral reefs, seagrass, wetlands, land-based pollution and economic valuation of Cambodia were prepared as a baseline resource for Strategic Action Programme implementation. A series of national action plans were developed for different thematic areas as well as a number of good practices on transboundary management².

Table 8. List of developed documents and contacting focal points in Cambodia

Component	Title	Date	Focal Point/Institution
Mangroves	Monitoring and Evaluation on Mangroves Management Efforts in Peam Krasop Wildlife Sanctuary, Koh Kong	2006	Keh Vongwattana Department of Nature Conservation and Protection
	Report on Review of Technique/Method in Mangrove Planting	2006	

² Available at http://www.unepscs.org/South_China_Sea_Knowledge/Lessons_Learned/SCS_Lessons_Learned.html

Component	Title	Date	Focal Point/Institution
	Technical Manual on Mangrove Planting and Seed Germination	2006	
	Mangroves in Peam Krasop Wildlife Sanctuary, Koh Kong Province	2006	
	Report on Socio-Economics in Peam Krasop Wildlife Sanctuary	2006	
	Mangroves and Coastal Wetlands Report		Koch Savath
	Mangroves and Wetlands Report		Ministry of Environment
Coral Reefs	National Report Cambodia Coral Reef	2005	Ouk Vibol Fisheries Administration
	National Action Plan for Coral Reef and Seagrass Management in Cambodia 2006-2015 (Final Ver)	2007	
	National Action Plan for Coral Reef and Seagrass Management in Cambodia 2006-2015 (Draft)	2005	
Seagrass	National Action Plan for Coral Reef and Seagrass Management in Cambodia 2006-2015 (Final Ver)	2007	Ouk Vibol Fisheries Administration
	Transboundary Water Management between Kampot Province (Cambodia) and Kien Giang Province (Vietnam)	2008	
	National Action Plan for Coral Reef and Seagrass Management in Cambodia 2006-2015 (Draft)	2005	
	Seagrass Management Plan for Kampot Province 2006-2015		
	National Report on Seagrasses of Cambodia		
	National Report on Seagrasses of Cambodia		
Wetlands	Mangroves and Coastal Wetlands Report		Koch Savath
	Mangroves and Wetlands Report		Ministry of Environment
Land-Based Pollution	Land-based Pollution Report		Pak Sokharavuth Department of Pollution Control
Fisheries	Cambodia Fisheries Report		Ing Try Fisheries Administration
	The Use of Seagrass by Juvenile and/or Fingerling Grouper: A Case Study in Kampot Province		
	Field Guide Marine Living Resources in Cambodia		
Economic Valuation	Cambodia Economic Valuation Guideline		Sy Ramony National Parks and Wildlife Sanctuary Office
Others	National Report of Cambodia on the Formulation of a Transboundary Diagnostic Analysis and Preliminary Framework of a SAP for the SCS		
	Transboundary Water Management between Kampot Province (Cambodia) and Kien Giang Province (Vietnam)	2008	Kampot Fisheries Cantonment Kampot Province, Cambodia

4.2 Site characterization

The SAP for the South China Sea and National Plans of Cambodia identified the priority sites, including 6 sites for mangroves, 7 sites for coral reefs, 2 sites for seagrass, 1 site for wetland and 3 sites for fisheries refugia (Table 9). Given that there existed overlaps on locations and difference on scales of planned management actions among thematic areas, the map (figure 1.1) indicated location names in the coastal areas of Cambodia for references.

The baseline assessments of the sites identified for Cambodia have been made accessible online at <http://gis.unepscs.org>. Specific site-level information and data compiled in each site characterization include details of: the geographical locations and boundaries of the sites (including coordinate); the site's physical environment; environmental state; socio-economic and resource use information; biological data; and information on the status of existing management.

Table 9. List of priority sites for implementing the SAP in Cambodia, including the UNEP GEF Fisheries Refugia Sites

Mangroves	Coral Reefs	Seagrass	Wetlands	Fisheries Refugia
6 sites	7 sites	2 sites	1 sites	3 sites
52,400 ha	2,260 ha	11,446 ha	12,000 ha	
Ream National Park Peam Krasoab wildlife sanctuary Dang Peng multiple use area Botum Sakor National Park Prey Nob District/Preah Shihanoukville Kampot and Kep Provinces	Koh Kong archipelago Koh Sdach archipelago Koh Rong archipelago Koh Takiev archipelago Koh Tang archipelago Prek Ampil Koh Pouh archipelago	Kampot Kep Beach & Koh Tonsay	Koh Kapik Ramsar, Koh Kong Province	Koh Kong – Short mackerel Kampot – Juvenile groupers Kep – Blue swimming crab

compile and evaluate national level sources of information and data for sharing at the regional level. National Technical Working Group members shall be appointed by the IMC and its Chair shall be a member of IMC.

5.3 Specialized executing agencies

National Specialized Executing Agencies (SEAs) will be engaged by UNOPS and assume overall responsibility for the execution of the national-level activities in their respective areas of expertise for Strategic Action Programme implementation in accordance with the initiative's results framework. The SEAs will convene quarterly meetings of national committees for mangroves, coral reefs, seagrass, wetlands, land-based pollution, and economic valuation, and will nominate a National Focal Point to: (a) act as the main point of contact with the SCS Project Coordination Unit (PCU); (b) act as Chair of the his/her respective National Committee; (c) act as a member of NTWG; and (d) act as a member of the respective Regional Working Group or Task Force. The SEAs will also plan and implement activities aimed at achieving the national-level goals and targets Strategic Action Programme for the South China Sea. In doing so, the SEAs will engage with national networks to the fullest extent possible, and establish institutional linkages with provincial and local governments and communities. The National Committee will be a core group of this engagement, including representatives from organizations and experts which are related to each thematic area.

5.4. Stakeholder participation

The Strategic Action Programme for the South China Sea emphasizes a high degree of provincial/local government and community participation in its implementation. This will involve, for example, community participation in the identification of Terms of Reference and membership for community-based management committees at the sites where management plans will be developed and implemented. Intensive consultation processes will also be undertaken to identify key threats at priority areas, agree upon management measures, and to facilitate high-levels of provincial/local government and community stakeholder ownership of management plan development and formal endorsement. In support of local implementation of the management plans, national committees and National Technical Working Groups will be engaged in supporting governments and communities in the design of awareness programmes, development of local networks of management practitioners, and capturing and sharing information about the results and best practices generated at these sites.

A range of other mechanisms to facilitate stakeholder input and participation are included in the programme of work for SAP implementation. These include: the operation of consultative processes in support of the updating and Ministerial adoption of a revised Transboundary Diagnostic Analysis and Strategic Action Programme for the SCS marine basin, including prioritization of national management actions to address climate variability and change; knowledge exchanges between government and the scientific community through biennial Regional Scientific Conferences; best practice exchanges between local government officials and coastal managers on science-based management via annual Mayor's Round-Table meetings; coordination with the UNEP/GEF fisheries refugia initiative and other GEF-financed initiatives operating in the East Asian Seas, including PEMSEA; and the operation of an award program on best practices in coastal habitat and land-based pollution management for communities, local governments and industry.

Mechanisms to further facilitate NGO, CSO, and CO participation in Strategic Action Programme implementation include: the revitalization of cooperative arrangements with GEF SGP in the commissioning and implementation of community-level initiatives in support of the achievement of SAP targets, including those relating to reforestation and enrichment planting at priority mangrove sites. Annual NGO forums will also be convened to elicit CSO and CO inputs to planning, and monitoring and evaluation, of the SCS-SGP partnership. Similar processes will be operated to engage the private sector in identify opportunities for private sector investment (e.g. oil and gas, fisheries, tourism) in implementation of an updated Strategic Action Programme. The planning of cooperation between governments and the private sector for the implementation of the updated Strategic Action Programme will be facilitated via the operation of partnership forums.

In Cambodia, the national lead agency for the project is the Ministry of Environment which will draw on inputs from its Department of Nature Conservation and Protection, Department of Planning and Legal Affairs, National

Park and Wildlife Sanctuary Office, Department of Pollution Control and Coastal Coordinating Unit. Given the fact that coral reef and seagrass are managed by the Fisheries Administration of the Ministry of Agriculture, Forestry and Fisheries, the Fisheries Administration will also play a major role in national coordination and work on governance reforms. National level coordination and planning will be undertaken in collaboration with the Ministry of Land Management, Urban Planning and Construction, Ministry of Public Works and Transport, Ministry of Foreign Affairs and International Cooperation, Ministry of Planning, and the Ministry of Women's Affairs.

The Ministry of Environment and the Fisheries Administration will also play significant roles in the technical and national-level execution of project activities given their growing human resource and technical capacities. Networks with other government ministries and agencies will be established to secure specialized technical inputs to project activities as required. The Royal University of Agriculture, Phnom Penh and the University of Phnom Penh are also key technical stakeholder as will be representatives of the Provincial governments of Kampot, Kep, Sihanoukville and Koh Kong. While the offices of the Governor and Deputy-Governor will be the key focal agencies within each of the coastal provinces, their departments are major project stakeholders from the perspective of local operational management and implementation of management reforms.

Each of the abovementioned provincial governments have a Department of Environment, Department of Agriculture, Provincial Fisheries Office, Department of Land Management, Department of Tourism, Department of Rural Development, Department of Women's Affairs, Department of Planning, Department of Public and Transport, Department of Mines and Industry, Department of Water and Meteorology, and Police Department. The effective coordination of inputs of the multitude of capacities of these provincial departments can enable a high level of operational management impact at the local level. In Koh Kong Province, the Peam Krasop Wildlife Sanctuary Administration is a major stakeholder, particularly with respect to mangrove and wetland management. Additionally, provincial and community level NGOs, CSOs and COs that have demonstrable experience and success working in the area of coastal and marine environmental management in these provinces include: the Coastal Community Fisheries Khan Stung Hav in Sihanoukville; the Environmental Protection and Development Organization; the Kampong Samaki Community Fisheries Coastal Resources Protection organization; and the Potsar and Champey Community Fisheries Federation and are key stakeholders.

6. NEXT STEPS

During 2020-2021 National Implementation Reports (NIR) will be developed to elaborate for each of the SCS SAP Outcomes and Outputs the activities to be executed in each site in order to achieve the SAP targets. This will include updated information and adjustments to address current status of SAP implementation since 2008 and revision of sites and planned activities if appropriate. The NIR will also include a detailed workplan and budget including partnerships and co-financing, to be adopted by the SCS SAP Project Steering Committee.