

REVIEW ON MARINE AND COASTAL PLANNING IN CAMBODIA

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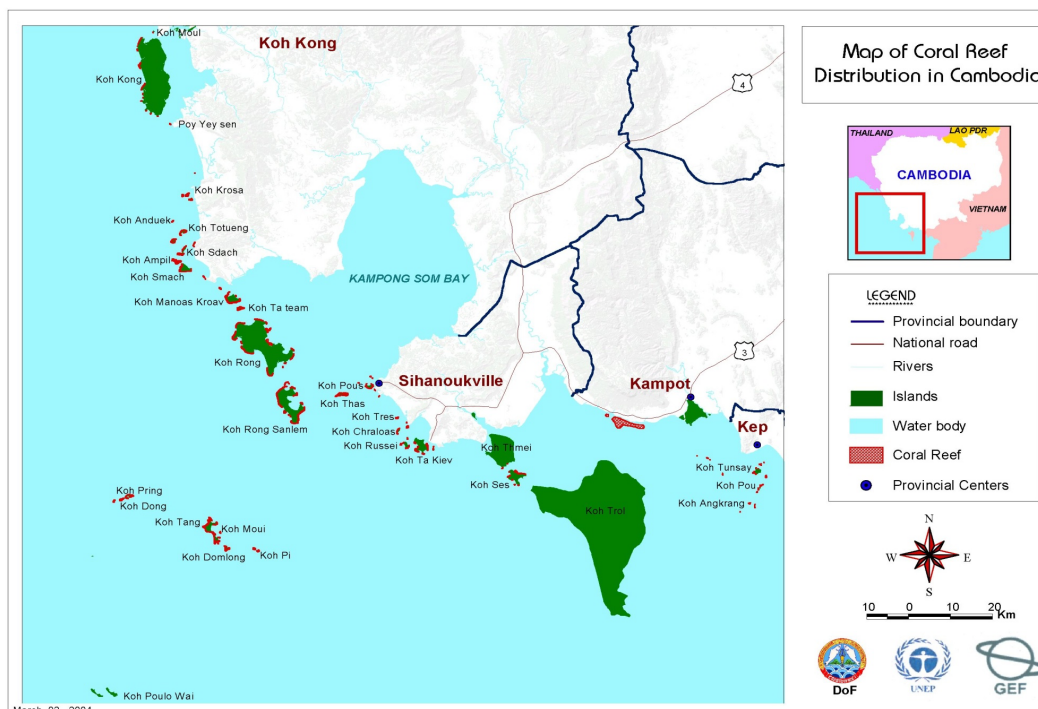
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1. INTRODUCTION

The Kingdom of Cambodia is located the south of the Indochinese Peninsula of Southeast Asia. The coast of Cambodia extends 440 km along the Gulf of Thailand, which borders between Thailand and Vietnam, and an exclusive economic area of 55,600 squares kilometers (FiA, 2019 and Nelson, 1999). Cambodia has four coastal provinces, including Sihanouk ville, Kampot, Koh Kong, and Kep, which covers the territorial waters of 69 islands (FiA, 2019).

The marine and coastal area of Cambodia also provides high potential ecological systems and biodiversity of which there are 2,806 hectares of coral reefs, 30,000 hectares of seagrass bed and 78,000 hectares of mangroves, providing spawning and living habitats for variety of marine species, especially fish, as well as serve the social and national economy. 525 species of marine finfish, 20 species of marine crabs, 42 species of marine gastropods, 24 species of marine bivalves and 11 species of marine mammals are found in the coastal water of Cambodia (Tana 1997, Bealey et al 2001, Try 2003). Marine species can be divided into pelagic and demersal species. Main commercially – important pelagic species include mackerels, scads, anchovies, sardines, small tuna, and pomfrets (FiA, 2010, FAO, 1994). Commercially-important demersal species include threadfin, croakers, bid-eye, lizard fish, hair tails, flatfishes, snappers, grouper, sharks, and conger eels. Besides, shrimps, squid, cuttlefish, crabs, octopus, beche-de-mer, mantis shrimp, and bivalves are also commercially important. The marine capture fisheries production is 125,000t in 2021, contributing to about 20% of the total capture fisheries production of Cambodia.

Cambodia's marine and coastal areas have been threatened seriously from direct and indirect actions, contributing to the decline in marine fisheries resources due to illegal fishing activities, overfishing, and the destruction of habitat, water pollution, coastal area development, and climate change. Therefore, these factors cause negative impacts to family and small scale fishermen depending on fishing. To address these issues, the conservation and management of marine and coastal areas should be strengthened and promoted and alternative livelihoods should be thought and provided to community fisheries to generate income for their subsistent supports in term of the sustainable development of these marine and coastal areas.



Source: FiA, 2004

2. VISION OF FISHERIES SECTOR

The Vision for Fisheries Sector is “management, conservation, and development of sustainable fisheries resources to contribute to ensuring people's food security and to socioeconomic development in order to enhance people's livelihoods and the nation's prosperity” (FiA, 2015: SPF, 2015-2024).

3. NATIONAL FISHERIES SECTOR POLICY

To achieve the vision for fisheries sector, the Royal Government of Cambodia has formulated the national fisheries sector policies as following (RGC, 2005):

1. Management and Development of Fisheries:

- Managing and utilizing sustainable fisheries resources to enhance food security and food safety and to contribute to poverty alleviation
- Promoting and encouraging fishing activities in the Exclusive Economic Zone (EEZ) and in the international fishing grounds by strictly implementing the regional code of conduct for responsible fisheries and the law of the Kingdom of Cambodia.

2. Management of Community Fisheries and Family Fisheries:

- Encouraging the effective establishment of community fisheries in inland and coastal areas in order to enhance the management of sustainable fisheries resources by empowering local communities; and
- Providing sustainable livelihood to fishermen in both socioeconomic and nutritional terms;

3. Management and Development of Aquaculture:

- Encouraging the development of different kinds and scales of aquaculture, both inland and coastal, by implementing the Regional Code of Conduct for Aquaculture;
- Extension of indigenous species of fauna and flora aquaculture, especially of species with a high economic export value; and
- Carefully monitoring the import of exotic fauna and flora species that have a negative impact on Cambodian's fisheries resources.

4. Management and Development of Fish Processing:
 - Development fish processing and packaging by encouraging large-scale investment and improving the fisheries infrastructure;
 - Developing fish processing technologies and enlarging domestic markets by supporting small scale investment to community fisheries and to fishermen;
 - Promoting economic cooperation by collecting and disseminating fish marketing management information; and
 - Ensuring the quality and safety of fisheries products.

5. Conservation of Fisheries Resources:
 - Revising and disseminating regulations for law enforcement and crackdown of all illegal fishing activities and preserving the inundated forest;
 - Increasing awareness of people in fisheries community and general fishermen to the importance of conservation of fisheries resources and ensuring maximum participation from local communities with respect to fisheries management and conservation;
 - Protecting the important natural habitats and biodiversity;
 - Ensuring wide coordination with all relevant sectors in order to reduce the potential negative on fisheries resources as a result of development in these other sectors; and
 - Strengthening and increasing the conservation of sustainable fisheries resources through increased cooperation between stakeholders.

6. Development of Fisheries Institutions and their Infrastructure:
 - Promoting human resource development within the fisheries sectors to ensure quality service within in order to improve socioeconomic development;
 - Providing training courses on fisheries and fisheries related to management processes; and
 - Encouraging and promoting fisheries research programs.

7. Budget and Fisheries Infrastructure:
 - Promoting investment in the fisheries sectors and development the fisheries infrastructure to increase the competitive market position of fisheries sectors;
 - Giving priority to using fisheries revenue through special financial procedures in order to achieve fisheries reforms, research conservation, development and surveillance activities to ensure sustainable fisheries and to increase fisheries resources for livelihood improvement.

4. STRATEGIC PLANS FOR MARINE FISHERIES MANAGEMENT

The strategic plans for marine fisheries management has been developed to provide a roadmap to the Fisheries Administration to manage effective and sustainable marine fisheries resources in term of ensuring a long-term marine fisheries management.

The FiA has produced 4 volumes of Strategic Planning Framework for Fisheries so far, the volume 1 is related to “ Fishing for Future” ; the volume 2 and 3 provides “background and information” (2010-2019) and “CamCode: Cambodian Code of Conduct for Responsible Fisheries”, respectively. For the volume 4, Strategic Planning Framework for Fisheries (2015-2024) focuses on 4 development pillars for fisheries sector such as 1) Capture Fisheries Management, 2) Aquaculture, 3) Fisheries Value Chain, and 4) Regulatory and Services.

The Strategic Plan for Fisheries Conservation and Management (2020-2029) has been produced to assist and support fisheries conservation and management with overall objectives “all stakeholders collaborate to ensure that Cambodia’s fisheries resources are utilized sustainably, conserved and managed in an environmentally non-degrading, ecologically appropriate, economically viable, and socially acceptable manner” (FiA, 2019).

Moreover, FiA produces the National Plan for Control and Inspection (NPCI) for Marine Fisheries (2020-2024), which aims to 1) provide guidance and support for the implementation of activities international and national legal obligation, 2) implement the strategic guidance for control and inspection, 3) support implementation of marine fisheries management including future marine fisheries management plan, and 4) support the implementation of the NPOA-IUU (FiA, 2020).

Besides, other strategic plans for marine fisheries management is detailed in the table 1 as follow:

Table 1: Strategic Plans for Marine Fisheries Management in Cambodia

No.	Description of Strategic Plans	Period of Year	Status
1	Strategic Planning Framework for Fisheries	2015-2024	Approved
2	Strategic Plan for Fisheries Conservation and Management	2020-2029	Draft version
3	National Strategic Plan for Aquaculture Development in Cambodia	2016-2030	Approved
4	National Plan of Action to Prevent, Deter and Eliminate Illegal Unreported and Unregulated Marine Fishing for Marine Fisheries, NPOA IUU	2020-2024	Approved
5	National Plan for Control and Inspection (NPCI) for Marine Fisheries	2020-2024	Approved
6	Action Plan for Inspection and Control of the Quality and Safety for Fish and Fisheries Products including the National Residue Monitoring Plan (NRMP)	2020-2024	Draft version
7	Gender mainstreaming policy and strategy in fisheries		Approved
8	Action Plan for Gender Equality Promotion and Child Labour Elimination in the Fisheries Sector	2016-2020	Approved
9	Management Plan for Marine Fisheries Management Area in Koh Rong and Koh Rong Samlem Archipelago, Preah Sihanouk Province	2016-2020	Approved
10	5 Year Action plan for Marine Fisheries Management Area in Koh Po and Koh Tonsay Achipelago, Kep province	2020-2024	Approved
11	Action Plan for Protection of Marine Turtle in Cambodia	2016-2026	Approved
12	5-year Action Plan for Mackerel Protection	2022-2027	Draft version
13	5-year Action Plan for Marine Fisheries Refugia Management	2022-2027	Draft version

5. INDICATOR FRAMEWORK FOR MARINE FISHERIES MANAGEMENT

The indicator framework for marine fisheries management has been designed to assess the outputs achieved by FiA based on the four development pillars such as Capture Fisheries Management, Aquaculture, Fisheries Value Chain, and Regulatory and Service. Moreover, the indicator framework has contributed to achieving the vision of fisheries sector as well as the national fisheries sector policy. In particular, the indicator of these pillars will also contribute to the Royal Government of Cambodia's vision for the future of fisheries sector (FiA, 2019: SPF, 2015-2024).

Pillar and Results	Indicator	Target
Pillar 1. Capture Fisheries and Management The availability of fresh water and marine fisheries production maintained through sustainable management and conservation of natural	1.1. Capture Fisheries production from all sources Baseline : 600,000t (all) : 125,000t (marine)	– 2017: 600,000t (Marine:125,000t) – 2020: 600,000t (Marine:125,000t) – 2024: 600,000t (Marine:125,000t)
	1.2. Number of effective	– 2017: 100CFi (4 CFis in

<p>resources, applying sound environmental principles</p>	<p>operation community fisheries Baseline : 50 CFi (2014) : 2 CFis in coastal area</p> <p>1.3. Total area under effective conservation (using area specific critical) Baseline: 26,674ha in 2014 for freshwater area</p>	<p>coastal area</p> <ul style="list-style-type: none"> - 2020: 200CFi (8 CFis in coastal area) - 2024: 300CFi (11CFis in coastal area) - 2017: 116,262ha (40535ha in coastal area) - 2020: 142,135ha (53278ha in coastal area) - 2024: 172,746ha (71278ha in coastal area)
<p>Pillar 2. Aquaculture: Inland and Marine</p> <p>Commercially viable and environmentally sustainable aquaculture contributing to food security, socioeconomic development , GDP and export earnings</p>	<p>2.1 Aquaculture production (20% annual increase) Baseline: 120,000t in 2014 : 20,400t from marine aquaculture production</p> <p>2.2. Number of registered , medium and large scale commercial aquaculture operators that have adopted Good Aquaculture Practices Baseline: 8(2014)</p>	<ul style="list-style-type: none"> - 2017: 207,000t (35190t from marine aquaculture production) - 2020: 360,000t (61200t from marine aquaculture production) - 2024: 740,000t (125800t from marine aquaculture production) - 2017: 20 - 2020: 35 - 2024: 65
<p>Pillar 3. Fisheries Value Chain</p> <p>The fisheries value chain standards, processes and procedures are developed in support of food security, sustainable livelihoods, and equitable and profitable trade</p>	<p>3.1 Contribution of fisheries sector to national GDP Baseline: 8% of GDP (2014)</p> <p>3.2 Increase in the export of regulated fisheries and aquaculture fish/products Baseline: 17,000t (2014)</p> <p>Increase in the number of medium/large scale fish processing companies that have been certified to comply with Good Hygiene Practices Baseline: 1company (2014)</p>	<ul style="list-style-type: none"> - 2017: 8% of GDP - 2020: 8% of GDP - 2024: 8% of GDP - 2017: 30,000t - 2020: 50,000t - 2024: 100,000t - 2017: 10 - 2020: 20 - 2024: 30
<p>Pillar 4: Regulatory and Service</p> <p>The Royal Government of Cambodia policy, regulatory actions and services in the fisheries sub-sector are sufficient, appropriate and enabling</p>	<p>4.1 Aquaculture and fisheries are increasingly seen as desirable technical careers. Baseline:40 students enrolled at key fisheries related to institutions (2014)</p> <p>4.2 Number of incoming official letters from line ministries to the</p>	<ul style="list-style-type: none"> - 2017: 10% increase on baseline - 2020: 30% - 2024: 50% - 2017: 20% increase over baseline

	<p>Director General of FiA, providing information or requesting FiA Baseline: 436 letter (2014)</p> <p>4.3 Improvement in private sector /community stakeholders' perception of fisheries policy and legislation implementation and impact Baseline: 2015 M&E perception survey</p>	<ul style="list-style-type: none"> – 2020: 50% increase over baseline – 2024: 70% increase over baseline – 2017: 20% increase over baseline – 2020: 50% increase over baseline – 2024: 70% increase over baseline
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Source: FiA, 2015:SPF, 2015-2024

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FiA, 2021: Annual Report of Fisheries Sector in 2021 and Next Plan Target for 2022:

FiA, 2019: 5 Year Action Plan for Marine Fisheries Management Area in Koh Po and Koh Tonsay Archipelago, Kep province (2020-2024)

FiA, 2015: Strategic Planning Framework for Fisheries (2015-2024)

FiA, 2010: Strategic Planning Framework for Fisheries (2010-2019)

FiA, 2020: National Plan for Control and Inspection for Marine Fisheries (2020-2024)

FiA, 2019: Strategic Plan for Fisheries Conservation and Management (2020-2024)

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