

MARINE AND COASTAL PLANNING OF THAILAND

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1. FISHERIES SECTOR

1.1 National Policy Framework

Fisheries management in Thailand has been majorly reformed since 2015 by the enactment of the Royal Ordinance on Fisheries B.E. 2558 (2015) and its Amendment (No. 2) B.E. 2560 (2017). In accordance with the Royal Ordinance on Fisheries, National Policy for Marine Fisheries Management has been developed, entitled “Marine Fisheries Management Plan of Thailand (FMP)”, firstly for the period of 2015-2019 and currently for 2020-2022. The plans are based on international best practice and Thailand’s international fisheries obligations applying the ecosystem approach to fisheries management (EAFM) that aims to balance ecological well-being (fish resources and the environment) with human well-being (social and economic benefits). The FMPs outline the management actions and measures needed to achieve sustainable fisheries and to control the fishing capacity to a level commensurate with the maximum sustainable yield (MSY) of the resources. Strengthening of monitoring, control, and surveillance (MCS) in marine fisheries are also highlighted in FMP. The policies and plans are enabled through the Royal Ordinance on Fisheries B.E. 2558 (2015) and its Amendment (No. 2) B.E. 2560 (2017).

1.2 Marine Fisheries Management Plan of Thailand 2020-2022

1.2.1 Vision

“Sustainably managed marine fishery that contributes to increased national prosperity, livelihoods, and environmental well-being”

1.2.2 Goals

- 1) Fisheries resources restored to a level that can support the MSY in Thai waters and sustainable fishing expanded into deep-sea and overseas waters;
- 2) IUU-free fishery;
- 3) Healthy habitats and environment;
- 4) Improved livelihoods of fishers and fishing communities; and
- 5) Effective fisheries management capacity.

1.2.3 Key principles

- **Sustainable development** that promotes a balance between ecological well-being (e.g. healthy fish resources and environment) and human well-being (e.g. food security, employment, livelihoods, income) so that the benefits derived from the fisheries are available for future generations;
- **Ecosystem approach to fisheries management** that implements sustainable development in the fisheries sector;
- **Good governance** that facilitates the setting of rules and regulations and adequate resources and arrangements for compliance and enforcement;
- **Participation and transparency** that encourages stakeholder participation in both fisheries planning and management, especially small-scale fishers and fishing communities;
- **Adoption of international best practice and regional cooperation** with neighboring countries;
- **Science-based decision-making** that ensures fisheries management decisions are based on the best available information;
- **Balance between fishing capacity and fisheries resources** to maintain or restore fish stocks to a level capable of producing the maximum sustainable yield (MSY);
- **Adaptive management** that embraces change through learning and adapting; and
- **Precautionary approach** that does not delay action because of lack of information and manages cautiously when uncertainty exists (e.g. uncertainty in the MSY estimate).

1.2.4 Objectives and targets

The 5 goals for FMP (2020-2022) are broken down into 15 objectives. Figure 1 and Table 1 show the objectives and their targets for each goal. In addition, the classification as economic, social, or environment goals are specified for each of the goal.

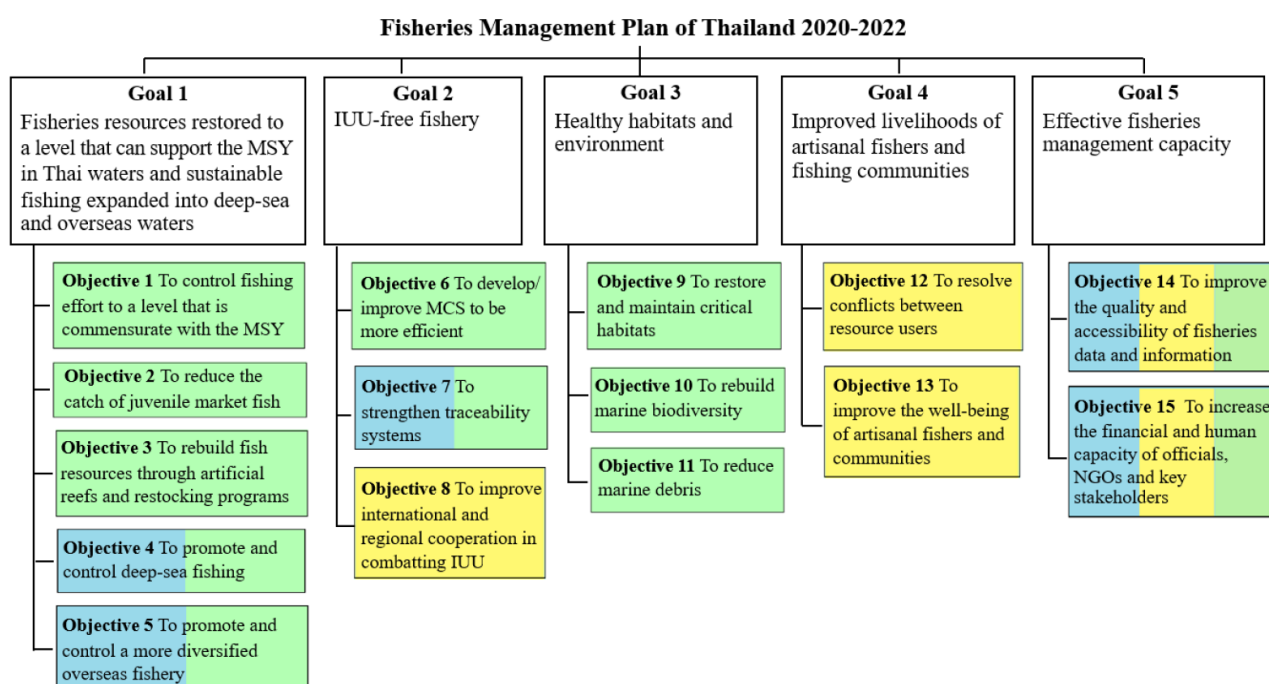


Figure 1 Goals and objectives of the Marine Fisheries Management Plan of Thailand 2020-2022

Remark ■ Economic goal ■ Social goal ■ Environmental goal

Table 1 Goals, objectives, and targets of the Marine Fisheries Management Plan of Thailand 2020-2022

Goal and objectives	Target
Goal 1: Fisheries resources restored to a level that can support the MSY in Thai waters and sustainable fishing expanded into deep-sea and overseas waters	
Objective 1: Control fishing effort to a level that is commensurate with the MSY	Maintain fishing effort below the F_{MSY} for the next five years
Objective 2: Reduce the catch of juvenile economic species	Reduce the proportion of juvenile caught and landed to 25% of current levels in three years
Objective 3: Rebuild fish resources through artificial reefs and restocking programs	Increase number of effective artificial reefs at least 5 sites per year and increase community stock enhancement projects at the number of 5 communities project per year
Objective 4: Promote and control deep-sea fishing	A sustainable and well-controlled deep-sea fishery developed by 2022
Objective 5: Promote and control a more diversified overseas fishery	A sustainable and well-controlled overseas fishery be developed by 2021

Goal and objectives	Target
Goal 2: IUU-free fishery	
Objective 6: Minimize IUU fishing through effective MCS	Reduce the level of IUU fishing through MCS arrangements
Objective 7: Strengthen traceability systems	All domestic and imported fish and fisheries products traced through the whole supply chain
Objective 8: Improve international and regional cooperation in combatting IUU	Share IUU information through the regional MCS network
Goal 3: Healthy habitats and environment	
* Objective 9: Restore and maintain critical habitats	Increase of mangrove area by 2,000 rai by 2022 and regular monitoring and reporting on sea grass area and coral reef status
Objective 10: Rebuild marine biodiversity	Area covered by MPA increased to 10% by 2022
Objective 11: Reduce marine debris	120 tons/year debris brought from the sea to land
Goal 4: Improved livelihoods of fishers and fishing communities	
Objective 12: Resolve conflicts between resource users	Reduce the incidence of conflicts in all Provinces
Objective 13: Improve the well-being of small-scale fishers and communities	Increase the income derived from fishing and marketing fish and fish products by 10% by 2022
Goal 5: Effective fisheries management capacity	
Objective 14: Improve the quality and accessibility of fisheries data and information	Improve data collection and information dissemination systems to a level that can be easily used to monitor the performance of this FMP in two years
Objective 15: Increase the financial and human capacity of officials, NGOs and key stakeholders	An effective and efficient fisheries management capacity within three years

* Establishment and operation of fisheries *refugia* for Thailand's sustainable fisheries, in particular, is included in the current FMP (2020-2022) by indicating it as one of the key performance indicators (KPIs) for Objective 9, restore and maintain critical habitats, which is specified in the Goal 3, healthy habitats and environment, of the FMP.

All management measures needed to meet each of the FMPs' objective, as well as key performance indicators, timelines, responsible agencies & supporting agencies, and financing are detailed in the Plan.

1.2.5 Management mechanism

During the period of 2020-2022, Thailand Department of Fisheries has implemented the measures and developed the regulations for the fisheries based on FMP (2020-2022). The FMP is cautiously reviewed biennially, based on the best scientific information available, with a report to

the Minister of Agriculture and Cooperatives and the National Committee on Fisheries Policy on the performance of the fishery against all indicators and benchmarks. An assessment team is formed and the Fisheries Management Information System, which is able to alert, monitor, and evaluate the performance, is developed.

An evaluation of the performance of this plan against its objectives has been made every second year and submitted to the National Committee on Fisheries Policy. The biennial evaluations may trigger a review and adaptive responses in the management and MCS arrangements. Indicators, benchmarks, and data sources for monitoring and evaluation are detailed in the plan.

1.2.6 Expected outcome

Thailand will achieve good governance in the management and conservation of marine fisheries resources and promote the participation of stakeholders in order to manage the fisheries resources to maintain appropriate condition and be able to sustainably fishing by economic, social, and environmental considerations in line with the ecosystem-based approach. The outcome is broken down into the following:

- 1) Maintain fisheries resources at a level that can produce the maximum sustainable yield (MSY) as well as control the level of fishing effort not exceed the level that can produce MSY;
- 2) Increase and maintain economic stability in marine fisheries sector and the country's downstream industry; and
- 3) Improve quality of life and fisher communities, elevate livelihood, and strengthen fishing occupation, particularly small-scale fishers.

2. ENVIRONMENT SECTOR

2.1 National Policy Framework

- Thailand national law for marine and coastal management is called: Act on the Promotion of Marine and Coastal Resources Management, B.E. 2558 (2015)

- According to the Act, there shall be the committee called "the National Policy and Plan Committee on Marine and Coastal Resources Management" consisting of the Prime Minister or the Deputy Prime Minister assigned by the Prime Minister as Chairperson, the Minister of Natural Resources and Environment as Vice-Chairperson, high rank officials of relevant ministers described in the Act, and qualified members with knowledge and expertise in marine and coastal resources management, environment, mineral resources, oceanography, marine science, tourism, fisheries, economics or law. Not less than one-half of the qualified members shall be representatives from coastal communities. The Director-General of the Department of Coastal and Marine Resources shall be a member and secretary. The Department of Marine and Coastal Resources shall serve as the secretariat of the Committee.

- National policy and plan on marine and coastal resources management shall be proposed by the Committee to the Council of Ministers for approval.

- The formulation of policy and plan on marine and coastal resources management shall take into consideration the national policy and plan for the promotion and conservation of the environmental quality under the law on the promotion and conservation of national environmental quality, fisheries development policy, aquaculture, and the exploitation of the aquatic animal. There shall be a public consultation with population, business entrepreneurs, private organizations and relevant state agencies to be taken into consideration in the formulation of such national policy and plan on marine and coastal resources management.

- There shall be "the Provincial Committee on Marine and Coastal Resources" consisting of the Governor as Chairperson, representatives of relevant sectors in the province described in the Act, and government official in the Department of Marine and Coastal Resources as a member and secretary.

- Provincial policy and plan on marine and coastal resources management shall be created and proposed to the National Policy and Plan Committee on Marine and Coastal Resources Management to be one part of the national policy and plan on the marine and coastal resources management.

2.2 National Policy and Plan on Marine and Coastal Resources Management (2021-2022)

2.2.1 Goals

- 1) Coastal and marine resources, environmental quality, and ecosystem are preserved, protected and restored to support environmentally friendly growth and good living of the people;
- 2) Balance between conservation and utilization, and diminished conflict of development in sustainable utilization of marine and coastal resources;
- 3) Comprehensive system of marine and coastal resources management based on multi-stakeholder participation, diminished inequality, and equitable building, in line with national strategy, laws, and international agreement with the principle of national interest; and
- 4) Sufficient and viable knowledge, research, innovation, and personnel for marine and coastal resources management.

2.2.2 Objectives

- 1) To conserve, protect, prevent, and restore marine and coastal resources as well as marine environmental quality, and to promote environmentally friendly growth and good living of the people;
- 2) To enhance development of mechanisms, tools, and regulations for marine and coastal resources management in order to create the linkage of spatial practices appropriately and concretely; and
- 3) To promote multi-sectoral cooperation and integration for marine and coastal resources management in order to contribute to abundant resources and being a part of sustainable development process.

2.2.3 Key measurement measures

Measure 1 Balanced and equitable preserve, protect, and restore ecosystem and marine and coastal resources specified as significance or tending to deterioration, e.g. sandy beach, beach forest, mangrove, coral, endangered species, seagrass, and biodiversity

Implementation

- 1) Preserve, protect, and restore ecosystem and marine and coastal resources specified as significance or tending to deterioration, e.g. sandy beach, beach forest, mangrove, coral, endangered species, seagrass, and biodiversity;
- 2) Manage coastal erosion and provide integrated plan for preventing and solving the problem of coastal erosion;
- 3) Develop the mechanisms, tools, and regulations for marine and coastal resources management in accordance with the Act on the Promotion of Marine and Coastal Resources Management, B.E. 2558 (2015);
- 4) Increase the number of marine protected area and enhance the efficiency of area-based management;
- 5) Enhance the efficiency of marine and coastal debris management; and
- 6) Enhance the efficiency of marine and coastal pollution management.

Key performance indicators/targets

- 1) Mangrove areas are increased 2,000 rai yearly;
- 2) At least 40% of coral reefs are healthy;
- 3) An area of 150 rai of seagrass beds is preserved and restored;
- 4) Coastal and marine resources protected areas are increased at least 1,000 km² yearly, reaching to 32,000 km² in 2030;
- 5) Stranded endangered species are 90% decreased;
- 6) Each of inland debris coming to the sea and marine debris is 5% decreased yearly;
- 7) One notification on environmental checklist for inshore construction with EIA exception.

Measure 2 Sustainably integrated management of marine and coastal resources utilization

Implementation

- 1) Make a zoning of marine and coastal resources on the basis of Marine Spatial Planning;
- 2) Manage marine fisheries resources, coastal fisheries, aquaculture, and sea farming on the basis of sustainable development approach;
- 3) Manage mineral and power sources in the sea efficiently and sustainably;
- 4) Promote and support alternation of marine and coastal tourism into sustainable tourism on the basis of support potential of the areas and fair benefit distribution; and
- 5) Enhance the efficiency of logistic system and safety marine transportation without impacts on ecosystem and environment.

Key performance indicators/targets

- 1) One manuscript of marine and coastal zoning map in the form of “One Marine Chart”, and manuscripts of marine zoning map for each of 24 coastal provinces;
- 2) Balanced beach areas are protected and the measures are laid down by the year 2022;
- 3) Fishing at a level to maintain or restore fish stocks to a level capable of producing the maximum sustainable yield (MSY);
- 4) The area of 3,000 rai of the forest are systematized and the conflicts over its occupation and utilization are solved by the year 2022;
- 5) Catch per unit of effort in Thai waters is increased; and
- 6) Ocean Health Index is over 75% in the year 2022.

Measure 3 Promote the effectiveness of marine and coastal resources management mechanism with emphasis on participation and keeping up with changes

Implementation

- 1) Manage zoning of provincial marine and coastal resources and coordinate cooperation between provinces of the same beach system;
- 2) Enhance the potential and roles of Provincial Committee on Marine and Coastal Resources by providing the action plan for integrated marine and coastal resources management;
- 3) Develop database information of marine use covering marine and coastal areas in all provinces;
- 4) Establish marine and coastal resources protection center in order to collect and analyze the up-to-date data from all sources including government sectors, marine and coastal networks, and coastal provinces, so as to solve the problems promptly;
- 5) Support the activities of coastal community networks and local administrative organizations;
- 6) Enhance cooperation among private organizations, foundations, associations, and social groups for conservation and monitoring of marine and coastal resources;
- 7) Revise organization structure of Thai Marine Enforcement Command Center;
- 8) Manage knowledge hub, enhance study and research, and develop innovation, for the purpose of marine and coastal resources management; and
- 9) Continually promote and disseminate knowledge, consciousness, awareness, and understanding of the management and utilization of marine and coastal resources to all stakeholders and people in general.

Key performance indicators/targets

- 1) Zonation of marine and coastal resources in 24 coastal provinces are determined and relating laws and regulations are revised;
- 2) Potential and roles of the networks of coastal communities and local administrative organizations are developed at the rate of 30% of their numbers per year;

3) Satisfaction of private organizations, associations, and other social groups participating in managing, preserving, protecting, and monitoring marine and coastal resources is at the level of 80% in the year 2022;

4) Database structure of marine and coastal resources in all of the 24 coastal provinces are developed;

5) Two articles of Marine knowledge hub are efficiently managed and disseminated each year;

6) One database system of forest resources status at near real time is developed; and

7) The number of 48 forest groups of the mangroves is concretely developed.

Measure 4 Strengthen international cooperation on the basis of mutual benefit

Implementation

1) Strengthen international cooperation in marine and coastal resources management; and

2) Revise law of the sea in accordance with United Nations Convention on the Law of the Sea (UNCLOS).

Key performance indicators/targets

1) One guidelines and roadmap for promotion of international cooperation in prevention, preservation, and restoration of marine resources and environment is developed;

2) One promotion plan for international cooperation in prevention, preservation, and restoration of marine resources and environment is developed;

3) Guidelines and roadmap for revision of the law of the sea in accordance with UNCLOS are developed;

4) Revision of the law of the sea in accordance with UNCLOS is in progress;

5) Enhancement of the role of Thailand as a leader in the global stage, particularly in ASEAN, is in progress;

6) International cooperation in the activities on natural resources and environment increased at the number of 2 articles each year.

2.2.4 Priority Projects

1) Conservation and utilization of mangrove resources;

2) Marine debris and marine pollution management;

3) Coastal erosion management;

4) Conservation, restoration, and utilization of marine resources; and

5) Promotion of cooperation, knowledge hub, and research.

* Key performance indicators, timelines, responsible agencies, risk management, and financing are detailed in the Plan.

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