

**REGIONAL GUIDELINES  
FOR RESPONSIBLE FISHERIES  
IN SOUTHEAST ASIA**

**FISHERIES MANAGEMENT**



Southeast Asian Fisheries Development Center

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## **FOREWORD**

As we already know, the wealth of aquatic resources was assumed as an unlimited gift of nature. However, with increased knowledge and dynamic development of fisheries after the Second World War, this myth has faded in face of realization that aquatic resources, although renewable, are not finite and need to be properly managed in order to ensure for their sustainable contribution to the nutritional, economic and social well-being of the growing world's population. Although it has been frequently justified that aquaculture should to some extent meet the shortfall to the demand for fish as food, effective management of capture fisheries probably still remains the main viable option to ensure the supply of the bulk of fish as food for the people. Thus, sustainable contribution of fisheries to the food security is one which regard as a very important issue to our people to be assured of their quality of life, free from hunger and have adequate food for consumption.

The widespread introduction in the mid-seventies of the Exclusive Economic Zone (EEZ) and the adoption of the United Nation Convention on the Law of Sea (UNCLOS) in 1982 provided a new framework for better management of the marine resources. The new legal regime of the ocean gave coastal States legal rights and responsibilities for the management and use of fishery resources within their EEZs that embrace 90% of the world's marine fisheries. Such extended national jurisdiction was necessary but it has insufficient step toward efficient management and sustainable development of fisheries. Many coastal States continued to face serious challenges such as lacking of experience, financial and physical resources, they sought to extract maximum benefits from the fisheries within their EEZs.

In recent years, world fisheries have become a market-driven sector of food industry. The coastal States have striven to take advantage by investing modern fishing fleets and processing factories in response to growing international demand for fish and fish products. By the late 1980s, it became clear that fisheries resources could no longer sustain rapid and often uncontrolled exploitation and development. Recognizing that long-term sustainable use of fisheries resources is the overriding objective of conservation and management, therefore, new approach to fisheries management embracing conservation and environmental considerations were urgently needed. The Committee on Fisheries (COFI) at its Nineteenth Session in March 1991 called for development of new concepts that would lead to responsible sustained fisheries. Subsequently, the International Conference on Responsible Fishing, held in 1992 in Cancun (Mexico) further requested FAO to prepare an international Code of Conduct to address these concerns. The outcome of this Conference, particularly the Declaration of Cancun, was an important contribution to the 1992 United Nations Conference on Environment and Development (UNCED), in particular its Agenda 21. The Code of Conduct for Responsible Fisheries (CCRF) was adopted at the FAO Conference on 31 October 1995. The Code provides necessary framework for national and international efforts to ensure sustainable exploitation of aquatic living resource in harmony with the environment.

At the Thirtieth Meeting of the Council of Southeast Asian Fisheries Development Center (SEAFDEC) at Bandar Seri Begawan, Brunei Darussalam on 17-21 March 1998, the Council Directors fully supported the program for the Regionalization of the Code of Conduct for Responsible Fisheries. They unanimously agreed to implement it in SEAFDEC's prioritized program. SEAFDEC as regional organization was also encouraged to make an effort to establish an Asian Code of Conduct in order to cover and facilitate actions for the implementation of CCRF in other ASEAN member countries.

Now, the hard works begin as we take actions to meet the challenges of achieving sustainable fisheries and food security of the region. I understand that all member countries and SEAFDEC Secretariat have put a lot of efforts in preparing for the Guidelines, but with collaborative and cooperative efforts among ourselves, we should be able to implement and make Code of Conduct for Responsible Fisheries operational. This is a work and we pursuing to accomplish it, which I believe will benefit all member countries in sustaining fisheries resources for our future generations.

Finally, I wish to express sincere gratitude to the people who actively involved in making this compilation of Regional Guidelines a success, including many regional core-experts and advisors. It is hoped that the governments in the ASEAN member countries will implement this guidelines and make their respective fishing industries more profitable and sustainable.



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IN SOUTHEAST ASIA:  
FISHERIES MANAGEMENT**

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**TABLE OF CONTENTS**

<b>Chapter I</b>	<b>Introduction</b>	1
<b>Chapter II</b>	<b>General Principles</b>	5
<b>Chapter III</b>	<b>Regional Definitions of the Terminology</b>	7
<b>Chapter IV</b>	<b>Regional Guidelines for Responsible Fisheries in Southeast Asia: Fisheries Management</b>	13
	• General	13
	• Management objectives	22
	• Management framework and procedures	24
	• Data gathering and management advice	31
	• Precautionary approach	37
	• Management measures	40
	• Implementation	49
	• Financial institutions	51
<b>Chapter V</b>	<b>Follow-up Activities</b>	53
	<b>List of Participants and Observers in the Consultation for the Regional Guidelines</b>	55
	<b>List of Sub-articles, the Resolution and Plan of Actions and their Focused Issues</b>	65
	<b>Subject Index</b>	67

## **CHAPTER I**

### **INTRODUCTION**

#### **Background**

The depletion of commercially important fish stocks due to excessive fishing effort has been one of the major problems faced by many countries around the world. This is especially a major concern among fishery managers whose duties are to ensure that fish stocks are exploited on a profitable but sustainable basis and among fisheries scientist involved in their assessment and enhancement.

It was due to this recognition of the importance of the commercial fish stocks and their respective fisheries on the global scale that the FAO Governing Bodies recommended the formulation of a global Code of Conduct of Responsible Fisheries (CCRF). The CCRF is expected to help setting principles and international standards behavior for responsible practices, taking into account the relevant biological, technology, economic, social, environmental and commercial aspects. The CCRF, unanimously adopted on 31 October 1995 by the FAO Conference, provides the necessary framework for national and international efforts to ensure the objectives on conservation, management and development of all living aquatic resources can hopefully be achieved.

Along this line, implementation of the CCRF is therefore very important for the achievement of sustainable fisheries, particularly in the Southeast Asia. However, before this can be achieved, clarification of the regional specific situation prior to the implementation of the CCRF is required. The different fishing scenarios and issues that exist within the region, especially those relating to the multi-species coastal and small-scale fisheries which are rather dominant but unfortunately only superficially covered by the global Code, need to be firmly addressed. This has called for a need to carefully investigate the CCRF and where required, clarification and specific guidelines considering the regional fisheries specificity need to be developed.

#### **Regionalization of the Code of Conduct for Responsible Fisheries in the Southeast Asia**

As part of the assistance of the Southeast Asian Fisheries Development Center (SEAFDEC) to the Member Countries of the Association of the Southeast Asian Nations (ASEAN) in the Implementation of the CCRF at national level, SEAFDEC has initiated the Program on Regionalization of the Code of Conduct for Responsible Fisheries (RCCRF) since 1998, which the major part of the program was financially supported by the Japanese Trust Fund to SEAFDEC. The program was taken up as one of the collaborative program under the ASEAN-SEAFDEC Fisheries Consultative Group (FCG) mechanism in 1999 and subsequently endorsed and supported by the Special Senior Official Meeting for ASEAN Ministers on Agriculture and Forestry (SOM-AMAF) in the same year.

In order to sufficiently investigate necessary requirements to promote the implementation of the CCRF in the region, the Program was developed to comprise four phases, namely, Fishing Operations, Aquaculture Development, Fisheries Management, and Fisheries Post-Harvest, and implemented by the respective Departments of SEAFDEC. Through regional consultation process, each program phase starts by investigating the focused topic and develops guidelines to be used as the basis to facilitate actions to achieve the goals of responsible fisheries. The regional guidelines of Phase I for fishing operations and Phase II for aquaculture have been published and disseminated by the SEAFDEC Training Department (TD) and Aquaculture Department (AQD) in 2001, respectively. As for Phase III for fisheries management, which jointly promoted by the SEAFDEC Secretariat, Marine Fisheries Resources Development and Management Department (MFRDMD) and Training Department (TD), the preparation of the regional guidelines was initiated in 1999 and concluded in 2002. It is expected that the Phase IV regional guidelines for fisheries post-harvest will soon start its preparation process to cover all thematic requirement of the CCRF.

### **Preparation of Regional Guidelines for Responsible Fisheries in Southeast Asia: Responsible Fisheries management**

Considering a vast spectrum of issues related to fisheries management, the RCCRF program Phase III consists of two parts: industrial fisheries and coastal fisheries, and are implemented by MFRDMD and TD, respectively. Through the following series of preparatory works and regional consultations, the regional guidelines for fisheries management based on the Article 7 of the CCRF have been prepared and finalized.

The pre-technical meeting of core experts for industrial fisheries management was held by MFRDMD in Kuala Terengganu, Malaysia from 27 to 30 January 2000 to discuss the preliminary drafting of the regional guidelines. The assigned core experts were from Brunei Darussalam (Mr. Abdul Halidi Mohd. Salleh), Indonesia (Mr. Suharyadi Salim), Japan (Mr. Katsuyama Kiyoshi), Malaysia (Mr. Sidek Jahaya), Philippines (Ms. Jessica C. Munoz), Thailand (Mr. Sakul Spongpan), and Vietnam (Dr. Vu Van Trieu).

The pre-technical meeting of core experts for coastal fisheries management was later held by TD in Samut Prakan, Thailand from 26 to 28 September 2000. The assigned core experts were Brunei Darussalam (Mr. Halidi Mohd. Salleh), Cambodia (MR. Sam Nuov), Indonesia (Mr. Suharyadi Salim), Japan (Dr. Masahiro Yamao), Lao PDR (Mr. Bounma Luang Amath), Malaysia (Dr. Kamaruzaman Salim), Myanmar (Mr. Aung Myint), Philippines (Ms. Jessica C. Munoz), Thailand (Mr. Somsak Chullasorn) and Vietnam (Dr. Vu Van Trieu).

In addition, MFRDMD organized the first technical consultation on industrial fisheries management in Penang, Malaysia on 6 November 2000 in conjunction with a regional technical consultation for the preparation of the ASEAN-SEAFDEC Conference on Sustainable Fisheries for Food Security in the New Millennium: "Fish for the people"(the Millennium Conference). The Millennium Conference concluded

technical recommendations as well as the Resolution and Plan of Action on Sustainable Fisheries for Food Security for the ASEAN Region. The Resolution and Plan of Action are regarded as the regional fisheries policy framework and the actions required to ensure the sustainable fisheries and food security in the ASEAN region.

Based on various comments and views from the core experts as well as relevant technical recommendations, the Resolution and Plan of Action of the Millennium Conference, including recommendations of their subsequent Regional Technical Meetings, MFRDMD and TD were given the task to compile and collate these inputs. Moreover, MFRDMD and TD also synthesized and summarized the compiled and collated inputs into a form of consolidated draft guidelines and further consulted with the ASEAN Member countries.

After collecting comments from the ASEAN Member countries, MFRDMD and TD in collaboration with the Secretariat organized a pre-meeting for the Government-Expert Consultation on RCCRF Phase III in Bangkok, from 12 to 15 August 2002. This pre-meeting discussed and concluded the revised draft guidelines, which includes the regional definition of related terminology to submit for consideration and finalization at the Government-Expert Consultation.

From 1 to 5 October 2002, the Government-Expert Consultation on RCCRF Phase III (Fisheries Management) was convened by MFRDMD in collaboration with TD and the Secretariat in Kuala Lumpur, Malaysia. After the final round of deliberation, review and revision, the representatives of the ASEAN Member Countries reached a consensus on the final Regional Guidelines for Responsible Fisheries in Southeast Asia - Responsible Fisheries Management. It is envisaged that the regional guidelines will provide a basis to facilitate the implementation of the CCRF at the national level in the Southeast Asian Region.





## **CHAPTER II**

### **GENERAL PRINCIPLES**

#### **Nature and Scope**

The Regional Guidelines for Responsible Fisheries in Southeast Asia - Responsible Fisheries Management was developed through a series of regional consultations to supplement the Code of Conduct for Responsible Fisheries for the implementation by the ASEAN Member Countries at the national level. Although the Regional Guidelines has been prepared for the ASEAN Member Countries it is hoped that any countries in Asia, which share similar specific fisheries circumstances will also find it useful.

#### **Objectives**

The objectives of the regional guidelines are the following:

1. To clarify the requirements of the Code of Conduct for Responsible Fisheries (CCRF)
2. To identify and prioritize the require actions
3. To identify the issues that require special consideration in the regional context
4. To facilitate the formulation of regional policies to enable the implementation of the CCRF in the member countries of the Association of Southeast Asian Nations (ASEAN)
5. To facilitate the formulation and implementation by the ASEAN Member Countries of national codes of practice for responsible fisheries management

#### **Rationale**

The regional guidelines was prepared in consideration of the following:

**1. Traditions and culture:** In the diversified traditions and culture of the ASEAN Member Countries, they are all fish-eating countries. Fish and fisheries have historically formed an important part of life of the people and national social and economic development in the ASEAN region. The fisheries sector as a whole has been developed into a traditional and complex system. Special consideration on these traditional and cultural aspects must then be given if the global framework such as the CCRF, which is based on a more simple structure, is going to be applied in the region.

**2. Fisheries Structure:** Based on the long history of fisheries development in the ASEAN region, the structure of fisheries differs from those of developed fisheries nations that are mainly located in the temperate zone and are often used as a model of global fisheries agreements or instruments. It is in fact that the industrial fisheries was developed in addition to the traditional fisheries after 1960s following the transfer of modern technology into the region. Although the fisheries structure in the region differs from country to country, the major fisheries sector in terms of numbers of people involved can be categorized as small-scale, coastal and subsistence fisheries. Social, economic and cultural aspects in addition to the scientific and environmental

factors should be fully taken into consideration when management and development are made to this sector.

**3. Southeast Asian Ecosystems:** In the tropical waters, fisheries resources are comparatively multi-species composition. This has resulted in the use of multi fishing gears and methods. The management of the fisheries sector in this region then has to respond to this phenomenon.

### **Consideration on International Legal Instruments**

In the Code of Conduct for Responsible Fisheries (CCRF), many relevant regulations, principles and requirements under international laws, agreements and conventions are referred to. Some of these initiatives have clear fisheries objectives, while some have wider objectives covering various industries such as maritime affairs and so on. Policy makers in each ASEAN Member Countries should recognize the international concerns and apply the relevant instruments. It is suggested that the ASEAN Member Countries should verify each article of relevant international instruments that have impacts on fisheries. The Member Countries should also take appropriate legal actions to enact appropriate national laws supplemented with required dissemination mechanism to the public and users of fisheries resources as well as establish appropriate enforcement mechanisms.

## CHAPTER III

### REGIONAL DEFINITIONS OF THE TERMINOLOGY

#### **Artificial reefs**

Any man-made structure placed in the water body to provide shelter, habitat or breeding areas, which at the same time have an effect to exclude some fishing operation from the areas

#### **Biodiversity<sup>1</sup>**

The variability among living organisms from all sources including, *inter alia*, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems. Diversity indices are measures of richness (the number of species in a system; and to some extent, evenness (variances of species' local abundance). They are therefore indifferent to species substitutions which may, however, reflect ecosystem stresses (such as those due to high fishing intensity).

#### **Buy-back scheme**

Financial mechanism of a fisheries management scheme, usually supported and often subsidized by governments, in which governments or other relevant parties (e.g. fisher's association) buy vessels and fishing licenses from producer in order to reduce fishing effort and capacity.

#### **Catchment approach**

An approach to inland fisheries management which considers the full extent of the catchment area or water shed of the river, tributary, or water body.

#### **Closed area (including marine parks, marine protected areas, etc.)**

Closure of an entire fishing ground for a particular fishing gear(s), or a part of it, for the protection of a section of population (e.g. spawners, juveniles), the whole population or several populations. The closure is usually seasonal but it could be permanent. (FAO)

#### **Closed season**

Banning of fishing activity (in an area or of an entire fishery) for a certain period of time, usually to protect juveniles or spawners.

#### **Co-management (CM)**

An approach to management in which the government share certain authority, responsibility and function of managing the fisheries with resource users as partners

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<sup>1</sup> From the FAO Technical Guidelines for Responsible Fisheries No. 4 Fisheries Management

### **Coastal fisheries**

Fisheries by fishing ground or area. There are some States that set a wider fishing range like Indonesia (12nm), Malaysia (30nm), Philippines (15km), and Thailand (12nm) or using different definitions like water depth (Cambodia; 20m).

### **Critical habitats**

A habitat that is essential to maintaining the integrity of an ecosystem, species or assemblages of species.

### **Culture-based fisheries**

Capture or harvest of aquatic organisms grown in open waters from artificially stocked seeds produced from hatchery or collected from the wild.

### **Destructive fishing gear and practices**

Fishing gear (including its accessories) and practices that have a destructive impact on the ecosystem, including fragile habitat, immature and juvenile species of commercial importance, unwanted fish and other animals.

### **Discards/waste**

That portion of catch returned to the sea (or otherwise thrown away) because of economic considerations - deemed to have or even negative value to the catcher.

### **Fisheries management**

The integrated process of information gathering, analysis, planning, consultation, decision-making, allocation of resources and formulation and implementation, with enforcement as necessary, of regulations or rules which govern fisheries activities in order to ensure the continued productivity of the resources and accomplishment of other fisheries objectives.

### **Fishing capacity**

Total number of fishing vessels used in the particular areas or particular fisheries.

### **Fishing effort**

Amount of fishing vessels and gears of a specific type (or numbers of fishing unit or total engine capacity of fishing unit) used in the fishing ground over a given unit of time

### **Fishing gear selectivity**

A property of the fishing gear that reduces or eliminates the capture of unwanted sizes or species of fish and the incidental catch.

### **Fishing license**

It is an authorization given to individuals or companies to enable them to do fishing.

### **Fishing right**

A kind of right, by which fishers may have exclusive use for a designated area and resources. It is an authorization given to fishing communities to enable them to do fishing.

**Food security**

Situation where adequate supply of appropriate foods at affordable prices are ensured.

**Illegal fishing gear and practices**

Fishing gear (including its accessories) and practices that are prohibited by laws, rules and regulations.

**Indicator**

A performance-based variable, measure or index that provides information on the condition and status of fisheries and fisheries resources.

**Inland fisheries**

<b>Countries</b>	<b>Inland Fisheries</b>
Brunei Darussalam	
Cambodia	Capture fisheries in freshwaters
Indonesia	Aquaculture and capture fisheries in freshwaters and brackishwaters
Lao PDR	Aquaculture and capture fisheries in freshwaters
Malaysia	Capture fisheries in freshwaters
Myanmar	Capture fisheries in freshwaters and brackishwaters
Philippines	Capture fisheries in freshwaters and brackishwaters
Singapore	Aquaculture and capture fisheries in freshwaters
Thailand	Capture fisheries in freshwaters
Vietnam	Aquaculture and capture fisheries in freshwaters

*Notes: freshwaters include lakes, rivers, swamps, marshes, dams, reservoirs, irrigations, rice-fields, channel, stream, drainage, etc.*

**Innovative Fisheries Management**

Decentralization of selected fisheries management functions to the local level and progressive introduction of rights-based fisheries management through licensing and community fishing rights, the improvement of vessel registration systems and the development of supporting legal and institutional frameworks.

**Input control system (effort control)**

Control of amount of effort and capacity which can be put into a fishery.

**Marine parks**

A marine reserve, that allows multiple uses through zoning where conservation-oriented recreation, education and research are emphasized.

**Marine protected areas**

A marine area (including offshore and coastal habitats) set aside by law or any other effective means to conserve and protect part or the entire enclosed environment and where management guidelines are established.

### **Maximum sustainable yield (MSY)**

Highest yield of fish that can be harvested on a sustainable basis from a fish stock by a given number of fishing efforts within a period of time under existing environmental conditions.

### **Monitoring, Control and Surveillance (MCS) System**

A system that ensure the monitoring, control and surveillance of fishing activities.

Monitoring involves the requirement of continuously observing, collecting, measuring and analyzing data and information on fishing activities.

Control refers to specifying the regulatory conditions (legal framework) under which the exploitation, utilization and disposition of the resources may be conducted.

Surveillance involves the degree and types of observations required to maintain compliance with regulations.

### **New Fisheries**

Fisheries of under-utilized or not yet exploited resources

### **Open-access regime**

A condition of a fishery in which anyone that wishes to fish may do so.

### **Output control system (catch control)**

Control of catch which can be taken from a fishery.

### **Resource enhancement**

Intervention aimed at supplementing, augmenting or adding to the present population of fish by re-stocking or installation of structures such as artificial reefs and closed areas.

### **Responsible fisheries**

A concept encompasses the sustainable utilization of fisheries resources in harmony with the environment; the use of capture and aquaculture practices that are not harmful to ecosystems, resources and their quality; the incorporation of added value to such products through transformation process meeting the required sanitary standards; the conduct of commercial practices so as to provide consumers access to good quality products.

### **Responsible fishing technology**

Techniques or methods of fishing that are not detrimental to or do not impair the sustainability of fish stocks and their habitats and ecosystems.

### **Right-based fisheries**

Fisheries where the right to fish or use the fisheries resources is licensed or permitted by the competent government authority, giving the licensed fishers access and use rights to the fishing ground. Such rights are accompanied by obligations to comply with the rules and regulations of the right-based regime.

**Shared stock**

Fish species that migrate within an EEZ but extend their migration to other nation's EEZs.

**Small-scale and commercial fisheries**

Due to different legal definitions used by each country, the following are classification between coastal and commercial fisheries of countries in the region.

<b>Countries</b>	<b>Small-scale Fisheries</b>	<b>Commercial Fisheries</b>
Brunei Darussalam	Small-scale/artisanal fisheries: Operating in all zones but concentrating in Zone 1.	Industrial fisheries: a) Trawlers less than 350hp operating in Zone 2. b) Purse seiners less than 20m operating in Zone 2. c) Trawlers with 350-550hp operating in zone 3. d) Purse seiners with 20-30m operating in Zone 3. e) Purse seiners more than 30m operating in Zone 4.
Cambodia	Coastal fisheries: small-scale fisheries with/without engine (from 5-50hp) operating in Zone 1.	Commercial fisheries: more than 50hp operating in Zone 2.
Indonesia	Small-scale fisheries: a) Outboard engines less than 10hp or 5gt operating in Zone 1. Trawls, purse seines and gill nets are not allowed, except for purse seine with a head rope less than 120m. b) Inboard engines less than 50hp or 25gt operating in Zone 2. Trawl and purse seine are not allowed, except purse seines with a head rope less than 300m.	Industrial fisheries: a) Inboard engine less than 200hp or 100gt operating in Zone 3. Purse seining is allowed, except those with a head rope less than 600m. b) All fishing vessels and fishing gear operating in Zone 4.
Lao PDR		
Malaysia	Traditional fisheries: small-scale fisheries using traditional fishing gears (i.e. other than trawls and purse seines) with vessels less than 10gt operating in all zones concentrating in Zone 1.	Commercial fisheries: Medium and large-scale fisheries using commercial fishing gears such as trawls and purse seines. a) With vessels less than 40 gt operating in Zone 2. b) With vessels from 40-70gt operating in Zone 3. c) With vessels above 70gt operating in Zone 4.
Myanmar	Coastal fisheries: vessels of less than 30ft or using less than 12hp	Industrial fisheries: vessels more than 30ft or using more than 12hp



	engine operating in Zone 1.	engines operating in Zone 2.
Philippines	Municipal fisheries: small-scale fisheries with vessels of less than 3gt operating in Zones 1 and 2.	Commercial fisheries: a) Small-scale commercial fisheries: from 3.1-20gt vessels operating in Zone 2; can also operate within 10.1-15km (within Zone 1) if authority is granted by the concerned local government unit (LGU). b) Medium-scale commercial fisheries: from 20.1-150gt operating in Zone 2; can also operate within 10.1-15km (within Zone 1) if authority is granted by the concerned local government unit (LGU). c) Large-scale commercial fisheries: more than 150gt operating in Zone 2.
Singapore		
Thailand	Small-scale fisheries: vessels of less than 5gt operating in Zone 1.	Large-scale fisheries: vessels of more than 5gt operating in Zone 2.
Vietnam	Small-scale fisheries: vessels with no engine and with engine but less than 40hp.	Large-scale fisheries: vessels with engine more than 40hp.

### Stakeholders

Individuals or groups of individual who are involved in utilization of fishery resources and have interests in the fisheries.

### Straddling fish stock

Fish species which are distributed or migrate within and beyond the EEZs during their life cycle.

### Target species

Species primarily sought or aimed at by the fishers.

### Transboundary fish stock

Fish species which migrate freely across the national boundaries in their life cycle.

### Tropical Fisheries

Fisheries that are multi-species and multi gear in nature.

### Under-utilized resources

Resources that are not harvested to full potential due to limitations to stock access including inappropriate fishing gear and vessels, inadequately trained fishers, lack of markets or processing facilities and seasonal limitations.

## CHAPTER IV

### REGIONAL GUIDELINES FOR RESPONSIBLE FISHERIES IN SOUTHEAST ASIA: FISHERIES MANAGEMENT

The Regional Guidelines for Responsible Fisheries in Southeast Asia: Fisheries Management is prepared based on the Article 7 Fisheries Management of the *Code of Conduct for Responsible Fisheries*. The original article numbers and statements are shown below to the left of the regional guidelines, while the modified regional guidelines are shown in the right column. Where a regional guidelines is not provided, the original Article 7 guideline applies.

“ADD.” Refers to guidelines developed in accordance with the Resolution and/or the Plan of Action on Sustainable Fisheries for Food Security for the ASEAN Region, including recommendations of their subsequent technical meetings. The Resolution and Plan of Action were adopted at the ASEAN-SEAFDEC Conference on Sustainable Fisheries for Food Security in the New Millennium: “Fish for the People” (the Millennium Conference). The Conference was held in November 2001 in Bangkok, Thailand.

Articles/ Focused Issues	Regional Guidelines
<b>7.1 General</b>	
<b>7.1 ADD.1</b> <b>Regional Guidelines on CCRF</b>	<p><i>States should formulate guidelines to implement the Code of Conduct for Responsible Fisheries, taking into account the specific social, economic, cultural, ecological and institutional contexts and diversity of ASEAN fisheries. (Millennium Resolution<sup>1</sup>, paragraph 1)</i></p> <ol style="list-style-type: none"> <li>1. States should formulate a national policy and fisheries management plan in accordance with agreed regional guidelines for the implementation of the CCRF.</li> <li>2. States should establish a committee, which consists of representatives from relevant agencies to formulate the fisheries management policy.</li> <li>3. States should develop appropriate implementation programs on the improvement of the fisheries management including awareness building and human resources development.</li> <li>4. States should incorporate fisheries management into the national development plan.</li> </ol>

<sup>1</sup> “Millennium Resolution” refers to the Resolution adopted at the Millennium Conference.

	<p>5. States should implement the “Regional Guidelines for Responsible Fishing Operations and Responsible Aquaculture in Southeast Asia” .</p>
<p><b>7.1.1 Long-term and sustainable use of resources</b> States and all those engaged in fisheries management should, through an appropriate policy, legal and institutional framework, adopt measures for the long-term conservation and sustainable use of fisheries resources. Conservation and management measures, whether at local, national, sub-regional or regional levels, should be based on the best scientific evidence available and be designed to ensure the long-term sustainability of fishery resources at levels which promote the objective of their optimum utilization and maintain their availability for present and future generations; short term considerations should not compromise these objectives.</p>	<p>1. States should formulate national management objectives and frameworks. However, specific management policy, mechanisms and approaches should be considered for the implementation of the management actions for inland capture, coastal and commercial fisheries.</p> <p>2. States should adopt conservation and management measures based on the best scientific evidence available including updated fisheries information in biology, ecology, biodiversity, technology, environment, economics, social science, aquaculture and any other areas required for fisheries management.</p> <p><b>Linkages:</b> <i>7.1.8 ADD. 1 on fishing capacity; 7.3.1 ADD. 1 on decentralization of management; 7.3.1 ADD. 2 on right-based fisheries; 7.3.3 on management plan, framework and actions; 7.4 ADD. 1 on statistics; and 7.6.10 ADD. 1 on resource enhancement.</i></p> <p><b>Inland Fisheries Management</b></p> <p>1. States should address the issues on the management of inland capture fisheries in the same context of coastal fisheries management in term of policy, mechanisms and approaches, considering the size and dispersed distribution pattern of the inland capture fisheries in the region.</p> <p><b>Linkages:</b> <i>7.3.5 ADD. 1 on inland fisheries.</i></p> <p><b>Coastal Fisheries Management</b></p> <p>1. States should harmonize the national fisheries management policy on the coastal fisheries within the framework on sustainable management adopted by regional and sub-regional organizations on fisheries management as practical as possible.</p> <p><b>Commercial Fisheries Management</b></p> <p>1. States should implement these measures after due consultations with the neighboring state(s).</p>

<p><b>7.1.2 Consultation</b>          Within areas under national jurisdiction, States should seek to identify relevant domestic parties having a legitimate interest in the use and management of fisheries resources and establish arrangements for consulting them to gain their collaboration in achieving responsible fisheries.</p>	<ol style="list-style-type: none"> <li>1. States should promote participatory approach through regular consultation and coordination process with appropriate stakeholders, local governments and local management institutions on the formulation and implementation of the fisheries management policy and relevant actions.</li> <li>2. States should take into account the social and economic importance, and cultural and historical backgrounds, when the local stakeholder identification process is conducted.</li> </ol> <p><b>Linkages:</b>  <i>7.1.8 ADD. 1 on fishing capacity; 7.1.9 on transparency; and 7.3.1 ADD. 1 on decentralization of management.</i></p>
<p><b>7.1.2 ADD. 1 Stakeholder involvement</b></p>	<p><i>States should acknowledge the need for enhanced human resource capabilities at all levels and encourage greater involvement by stakeholders to facilitate consensus and compliance in achieving sustainable fisheries. (Millennium Resolution, paragraph 3)</i></p> <p><i>States should ensure local consensus building on innovative management measures through consultative process and create close monitoring mechanisms to implement these measures. (Millennium Plan of Action<sup>2</sup>, paragraph 2 of Fisheries Management)</i></p> <ol style="list-style-type: none"> <li>1. To promote the participatory approach, appropriate human resource development and capacity building together with appropriate budget and logistic support should be programmed and undertaken.</li> </ol> <p><b>Linkages:</b>  <i>7.1 on general fisheries management; 7.1.2 on consultation; 7.1.8 ADD. 1 on fishing capacity; 7.1.10 on legal issues; 7.3.1 ADD. 1 on decentralization of management; 7.3.1 ADD. 2 on right-based fisheries; 7.3.4 on institutions; 7.3.5 on non-fisheries activities; 7.3.5 ADD. 1 on inland fisheries; 7.4 ADD. 1 on statistics; 7.6.4 ADD. 2 on responsible fishing; 7.6.10 ADD. 1 on resource enhancement; and 7.7.2 on non-compliance.</i></p>

<sup>2</sup> “Millennium Plan of Action” refers to the Plan of Action adopted at the Millennium Conference.

<p><b>7.1.2 ADD. 2</b> <b>Collaboration among government agencies</b></p>	<p><i>States should cooperate to identify constraints and enhance collaboration among government agencies, which have responsibility for fisheries and fisheries-related issues, to harmonize policies, plan and activities, which support sustainable fisheries at national and regional level. (Millennium Resolution, paragraph 2)</i></p> <p><b>Linkages:</b> <i>7.1.10 on legal issues; 7.3.1 ADD. 1 on decentralization of management; 7.3.1 ADD. 2 on right-based fisheries; 7.3.4 on institutions; 7.3.5 on non-fisheries activities; 7.3.5 ADD. 1 on inland fisheries; and 7.4 ADD. 1 on statistics.</i></p>
<p><b>7.1.3 Cooperation</b> For transboundary fish stocks, straddling fish stocks, highly migratory fish stocks and high seas fish stocks, where these are exploited by two or more States, the States concerned, including the relevant coastal States in the case of straddling and highly migratory stocks, should cooperate to ensure effective conservation and management of the resources. This should be achieved, where appropriate, through the establishment of a bilateral, sub-regional or regional fisheries organization or arrangement.</p>	<ol style="list-style-type: none"> <li>1. States which share their fish stocks (whether these be transboundary, straddling, or highly migratory fish stocks) should coordinate and participate actively to establish mechanisms or arrangement for the sustainable management and conservation of such stocks. Such mechanism or arrangement may be undertaken through consultations among the states concerned or within established sub-regional and regional fisheries organizations and/or arrangements (i.e. bilateral or trilateral consultation on the shared stocks). Member States should likewise develop the research capability concerning the shared stocks that may be undertaken with the assistance of international and/or regional fisheries organizations.</li> </ol> <p><b>Coastal Fisheries Management</b></p> <ol style="list-style-type: none"> <li>1. States should consider specific needs for the coordination of the management of coastal fisheries located in the vicinity of the national border with neighboring countries.</li> <li>2. In the areas where shared stock are commonly exploited by more than one state at any scale, the concerned states should cooperate and exchange information to ensure effective conservation and management of the shared stocks.</li> </ol> <p><b>Inland Fisheries Management</b></p> <ol style="list-style-type: none"> <li>1. States should take appropriate actions for the management of transboundary fish stocks in the river systems shared by several countries.</li> </ol>

	<p><b>Linkages:</b> 7.3.5 ADD. 1 on inland fisheries.</p>
<p><b>7.1.4 Members of fisheries management organizations / arrangements</b> A sub-regional or regional fisheries management organization or arrangement should include representatives of States in whose jurisdictions the resources occur, as well as representatives from States which have a real interest in the fisheries on the resources outside national jurisdictions. Where a sub-regional or regional fisheries management organization or arrangement exists and has the competence to establish conservation and management measures, those States should cooperate by becoming a member of such organization or a participant in such arrangement, and actively participate in its work.</p>	<p>1. States in the region should seek potential arrangement to manage shared stocks in a sustainable manner through active consultation.</p>
<p><b>7.1.5 Non-members of fisheries management organizations / arrangements</b> A State which is not a member of a sub-regional or regional fisheries management organization or is not a participant in a sub-regional or regional fisheries management arrangement should nevertheless cooperate, in accordance with relevant international agreements and international law, in the conservation and management of the relevant fisheries resources by giving effect to any conservation and management measures</p>	<p>1. All states in the region should be encouraged to participate or cooperate with relevant fisheries management organizations including the states that are not the members of the existing regional fisheries management organizations, e.g. Indian Ocean Tuna Commission (IOTC), Commission for the Conservation of Southern Bluefin Tuna (CCSBT) and Multilateral High-level Commission on Western Central Pacific Tuna (MHLIC).</p>

<p>adopted by such organization or arrangement.</p>	
<p><b>7.1.6 Involvement in fisheries management organizations/ arrangements</b>  Representatives from relevant organizations, both governmental and non-governmental, concerned with fisheries should be afforded the opportunity to take part in meetings of sub-regional and regional fisheries management organizations and arrangements as observers or otherwise, as appropriate, in accordance with the procedures of the organization or arrangement concerned. Such representatives should be given timely access to the records and reports of such meetings, subject to the procedural rules on access to them.</p>	
<p><b>7.1.7 MCS and enforcement</b>  States should establish, within their respective competences and capacities, effective mechanisms for fisheries monitoring, surveillance, control and enforcement to ensure compliance with their conservation and management measures, as well as those adopted by sub-regional or regional organizations or arrangements.</p>	<ol style="list-style-type: none"> <li>1. General public awareness and stakeholder participation regarding the various benefits of the monitoring, control and surveillance (MCS) should be promoted. All adopted measures should be cost-effective and provide opportunities in the training and education of fishers and fisheries staff. National MCS framework should be encouraged to harmonize with those of neighboring countries as practical as possible.</li> </ol> <p><b>Linkages:</b>  7.1.8 ADD. 1 on fishing capacity; and 7.7.3 on MCS.</p> <p><b>Coastal/Inland Fisheries Management</b></p> <ol style="list-style-type: none"> <li>1. States should establish specifically the most cost-effective fisheries monitoring, control and surveillance measures applicable for coastal fisheries. Systems such as mutual MCS among the fishers should be considered as the possible mechanism.</li> <li>2. States should establish appropriate policy on MCS mechanism for the coastal fisheries management.</li> </ol>

	<p>3. States are encouraged to decentralize/delegate certain management functions on MCS to the designated communities or local governments as appropriate and take the measures to legitimately implement these systems.</p> <p><b>Linkages:</b> 7.3.1 ADD. 1 on decentralization of management.</p> <p>4. States should consider the existence of traditional systems, which could be used in term of monitoring and controlling the resources.</p>
<p><b>7.1.8 Excess fishing capacity</b> States should take measures to prevent or eliminate excess fishing capacity and should ensure that levels of fishing effort are commensurate with the sustainable use of fishery resources as a means of ensuring the effectiveness of conservation and management measures.</p>	<p><b>Linkages:</b> 7.1.8 ADD. 1 on fishing capacity.</p>
<p><b>7.1.8 ADD. 1 Fishing capacity</b></p>	<p><i>States should review the issue of excess fishing capacity at the national level and recommend where appropriate, measures to improve the registration of fishing vessels, introduction of right-based fisheries and reduction in the number of fishing boats and level of fishing effort using government incentives (Millennium Plan of Action, paragraph 5 of Fisheries Management)</i></p> <ol style="list-style-type: none"> <li>1. States should establish mechanisms to curb, deter or eliminate excess fishing capacity so as to ensure the sustainable use of the fishery resources. Such mechanisms may be effected in a number of ways (e.g. buy-back scheme, zonation, closed seasons, mesh size regulations, etc.) after assessment on the status of the resources have been undertaken.</li> <li>2. States should take measures to prevent the build-up of excess fishing capacity where fisheries resources are considered to be under-exploited.</li> <li>3. States should identify steps needed to limit access (right-based fisheries) when over-capacity exists. Suggested measures include:             <ol style="list-style-type: none"> <li>a. Implementing an improved system of national</li> </ol> </li> </ol>



	<p>and local registration of fishing vessels;</p> <ol style="list-style-type: none"> <li>b. Freezing the number of fishing vessels at existing levels;</li> <li>c. Reducing the number of vessels at the appropriate rate with due consideration on socio-economic impacts, e.g. buy-back schemes, reallocating of number of vessels, alternative employment in other economic sectors through subsidy programs, on an adaptive basis that takes into account the best available information;</li> <li>d. Closely monitoring the impact of vessel reduction on the fisheries resources including prevention of any new entry into the over-exploited fishery;</li> <li>e. Providing training on alternative occupational skills and incentives (including vessel buy back system) to encourage boat owners and fishers to leave over-exploited fisheries; and</li> <li>f. Developing appropriate indicators to assist in the management of fishing capacity.</li> </ol> <p><b>Linkages:</b>  7.4.2 ADD. 1 on indicators.</p> <ol style="list-style-type: none"> <li>4. States should undertake studies for the excess fishing capacity, but should not delay the implementation of appropriate action to regulate fishing capacity based on existing information.</li> <li>5. States should promote and strengthen awareness and consensus at all levels on the economic nature of fisheries management, in particular the management of fishing capacity.</li> <li>6. States should prepare a national plan of action, in consultation with stakeholders, taking into account of the regional specific issues and type of fisheries and consider the appropriate issues recommended by the International Plan of Action (IPOA) on the Management of Fishing Capacity.</li> <li>7. States should ensure that other sector policies are compatible with policies aimed at managing capacity, especially those that may directly or indirectly provide incentives to further increase fishing capacity.</li> <li>8. States should include information on ownership and capacity of vessel in registry of fishing vessels.</li> </ol>
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	<p>9. Data and information on the status and trend of the fisheries should be regularly collected in support of the management of fishing capacity.</p> <p><b>Linkages:</b> 7.4 ADD. 1 on statistics.</p> <p>10. States should apply a precautionary approach to management of capacity in case of uncertainty regarding the state of the fishery resources.</p> <p><b>Linkages:</b> 7.5.1 on precautionary approach.</p> <p>11. States should implement management measures for fishing capacity, whenever possible, before the resources are over-exploited to avoid severe social and economic consequences.</p> <p>12. States should consider the socio-economic impacts caused by the reduction and relocation of fishing capacity and take appropriate measures to mitigate negative social consequences.</p> <p><b>Coastal Fisheries Management</b></p> <p>1. States should give special consideration regarding the socio-economic situation of the coastal fisheries.</p> <p>2. States should facilitate equitable application of the national plan of action to manage fishing capacity in coastal fisheries.</p>
<p><b>7.1.9 Transparency</b> States and sub-regional or regional fisheries management organizations and arrangements should ensure transparency in the mechanisms for fisheries management and in the related decision-making process.</p>	<p>1. States should ensure transparency in their decision-making process through close consultations with stakeholders so as to achieve maximum compliance and cooperation.</p>
<p><b>7.1.10 Legal issues</b> States and sub-regional or regional fisheries management organizations and arrangements should give due publicity to conservation and management measures and ensure that laws, regulations and other legal rules</p>	<p>1. States should effectively disseminate conservation and management measures to stakeholders through public media, regular consultation, extension, seminar and training exercises.</p> <p><b>Linkages:</b> 7.3.1 ADD. 1 on decentralization of management; 7.3.1 ADD. 2 on right-based fisheries; 7.6.4 ADD. 1 on</p>

<p>governing their implementation are effectively disseminated. The bases and purposes of such measures should be explained to users of the resource in order to facilitate their application and thus gain increased support in the implementation of such measures.</p>	<p><i>responsible fishing; 7.6.6 on traditional practices; 7.7.1 on legal implementation; and 7.7.2 on violation.</i></p>
<p><b>7.2 Management objectives</b></p>	
<p><b>7.2.1 Long - term management objectives</b>          Recognizing that long-term sustainable use of fisheries resources is the overriding objective of conservation and management, States and sub-regional or regional fisheries management organizations and arrangements should, inter alia, adopt appropriate measures, based on the best scientific evidence available, which are designed to maintain or restore stocks at levels capable of producing maximum sustainable yield, as qualified by relevant environmental and economic factors, including the special requirements of developing countries.</p>	<ol style="list-style-type: none"> <li>1. States should formulate and/or revise and implement the management measures based on the best scientific evidence available.</li> <li>2. States should develop and evaluate the appropriate resource assessment methodologies considering multi-species and multi-gear nature of tropical fisheries.</li> <li>3. States should exercise the application of MSY with caution for resource assessment.</li> </ol>
<p><b>7.2.2 Measures for the objectives</b>          Such measures should provide inter alia that:</p> <ol style="list-style-type: none"> <li>a) excess fishing capacity is avoided and exploitation of the stocks remains economically viable;</li> <li>b) the economic conditions under which fishing industries operate promote responsible</li> </ol>	<ol style="list-style-type: none"> <li>1. States should periodically assess the status and trend of fisheries, ensure that fisheries are commensurate with the available resources, and apply suitable measures to avoid/reduce excess fishing capacity.</li> <li>2. States should promote responsible fisheries within their fishing industries by creating an awareness program and proper education system for all stakeholders.</li> </ol>

<p>fisheries;</p> <p>c) the interests of fishers, including those engaged in subsistence, small-scale and artisanal fisheries, are taken into account;</p> <p>d) biodiversity of aquatic habitats and ecosystems is conserved and endangered species are protected;</p> <p>e) depleted stocks are allowed to recover or, where appropriate, are actively restored;</p> <p>f) adverse environmental impacts on the resources from human activities are assessed and, where appropriate, corrected; and</p> <p>g) pollution, waste, discards, catch by lost or abandoned gear, catch of non-target species, both fish and non-fish species, and impacts on associated or dependent species are minimized, through measures including, to the extent practicable, the development and use of selective, environmentally safe and cost-effective fishing gear and techniques.</p>	<p>3. States should maintain close coordination and consultation with stakeholders and related institutions in order to understand their interests and minimize undesirable conflicts that might arise from their various activities.</p> <p>4. States should be aware of the importance of maintaining the biodiversity and extent of aquatic habitats and ecosystems to the conservation and management of tropical fisheries.</p> <p>5. States should support all activities that may lead to the recovery of depleted stocks. Such activities, undertaken within the State's management framework, may include rehabilitation of fisheries resources via establishment of marine protected areas, artificial reefs, closed areas, closed seasons, and restocking programmes.</p> <p>6. States should require a detailed Environmental Impact Assessment (EIA) before undertaking any project which may have impacts on aquatic resources and implement the environmental management and monitoring plan.</p> <p>7. States should ban fishing and taking of rare, threatened and endangered species.</p> <p><b>Linkages:</b> 7.1.8 ADD. 1 on fishing capacity; 7.3.1 ADD. 1 on decentralization of management; 7.6.4 on responsible fishing; and 7.6.10 ADD. 1 on resource enhancement.</p> <p><b>Coastal Fisheries Management</b></p> <p>1. States should provide fundamental facilities and services to support the needs of fishers in subsistence, small-scale and artisanal fisheries.</p> <p><b>Linkages:</b> 7.8.1 on government subsidies.</p>
<p><b>7.2.3 Target stocks and their ecosystems</b> States should assess the impacts of environmental factors on target stocks and</p>	<p>1. States should encourage such research activities for proper management actions including species interaction, however carefully consider the sizable</p>

<p>species belonging to the same ecosystem or associated with or dependent upon the target stocks, and assess the relationship among the populations in the ecosystem.</p>	<p>cost involved in such assessment work in the tropical fisheries which may include several environmental parameters and multi-species nature of fish stocks.</p> <p><b>Linkages:</b> 7.3.5 ADD. 1 on inland fisheries.</p>
<p><b>7.3 Management framework and procedures</b></p>	
<p><b>7.3.1 Ecosystem management</b> To be effective, fisheries management should be concerned with the whole stock unit over its entire area of distribution and take into account previously agreed management measures established and applied in the same region, all removals and the biological unity and other biological characteristics of the stock. The best scientific evidence available should be used to determine, inter alia, the area of distribution of the resource and the area through which it migrates during its life cycle.</p>	<p><b>Linkages:</b> 7.2.2 on ecosystem management.</p>
<p><b>7.3.1 ADD. 1 Decentralization of management</b></p>	<p><i>States should encourage effective management of fisheries through delegation of selected management functions to the local level. (Millennium Resolution, paragraph 5)</i></p> <p><i>States should establish and implement comprehensive policies for innovative fisheries management, such as the decentralization of selected fisheries management functions to the local level. (Millennium Plan of Action, paragraph 1 of Fisheries Management)</i></p> <ol style="list-style-type: none"> <li>1. States should promote consultation among fishers in adjacent waters including neighboring states on the basis of equitable allocation of resources in the management implementation.</li> <li>2. States should examine the feasibility and viability of the policy on decentralization of fisheries management authority, responsibility and function to appropriate local government institutions for small-scale/coastal fisheries as follows;</li> </ol>

	<ol style="list-style-type: none"><li>a. Formulation of appropriate national policy on decentralization of fisheries management in collaboration with relevant agencies;</li><li>b. Determination of the types of fisheries management authority, responsibility and function that can be delegated and shared with local institutions;</li><li>c. Determination of the appropriate local institutions that can be authorized and can accept the mandate to manage the fisheries in the area of jurisdiction;</li><li>d. Determination of the need for human resource development to prepare the local resource users and their community to assume greater responsibility for managing the fisheries in their local area; and</li><li>e. Development of the local consensus through close coordination among the different agencies involved that have responsibility in fisheries and coastal resource management.</li></ol> <ol style="list-style-type: none"><li>3. States should prepare a comprehensive fisheries management program under the decentralized policy to further clarify various issues, including detailed Terms of Reference for both central government office and local institutions in fisheries management and human resource development in a harmonized manner.</li><li>4. States should clarify and provide appropriate legal framework, mandate and responsibility to the different fisheries management authorities at both the central and local levels.</li><li>5. States should conduct a comprehensive development plan of fisheries management decentralization, especially in the gradual transfer of selected management authority, responsibility and function to the local government offices and non-government institutions where greater coordination and cooperation between the central and local institutions are required with the full support of the central government office.</li><li>6. States should study the cost, benefits, advantages, and problems of building and supporting existing decentralized fisheries regimes in the region with a view to learning the lessons of these experiences.</li></ol>
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	<p>7. States should take measures to carefully define the management agencies to be the subject of the decentralized fisheries management through mapping and delineation of the geographical, social or other boundaries of the fisheries.</p> <p><b>Linkages:</b> 7.1.10 on legal issues; 7.2.2 on ecosystem management; 7.3.5 ADD. 1 on inland fisheries; and 7.6.5 on conflicts.</p> <p><b>Inland Fisheries Management</b></p> <p>1. States should promote management of inland capture fisheries under decentralized management mechanisms at appropriate local level.</p> <p><b>Linkages:</b> 7.3.5 ADD. 1 on inland fisheries.</p> <p><b>Coastal Fisheries Management</b></p> <p>2. States should establish mechanism to promote fisheries management at community level (co-management approach) with the technical guidance through a decentralization system for the long-term sustainable use of fisheries resources.</p> <p>3. States should establish an effective monitoring system of coastal fisheries at the community level in order to understand the status and trend of fisheries as well as fishing capacity.</p> <p>4. States should establish the most appropriate mechanisms to promote co-management and self-regulatory management systems, taking into account the various local factors.</p>
<p><b>7.3.1 ADD. 2</b> <b>Right-based fisheries</b></p>	<p><i>States should recognize the need to progressively replace “open access” to fisher resources with “limited access regimes” through the introduction of rights - based fisheries which may also facilitate the management of fishing capacity and promote the use of responsible fishing gears and practices. (Millennium Resolution, paragraph 6)</i></p> <p><i>States should establish and implement the progressive introduction of right-based fisheries management through licensing and community fishing rights, the improvement of vessel registration systems and the development of supporting legal and institutional frameworks. (Millennium Plan of Action, paragraph 1 of Fisheries Management)</i></p>

	<ol style="list-style-type: none"> <li>1. States should gradually replace the “open access regime” with “right-based fisheries” under an input control management system.</li> <li>2. States should formulate appropriate policy and fisheries management frameworks for both industrial and small scale/coastal fisheries.</li> <li>3. States should prepare appropriate guidelines to promote right-based fisheries for both commercial and small-scale/coastal fisheries.</li> <li>4. States should coordinate among the relevant agencies and gradually implement right-based fisheries regimes.</li> <li>5. States should review existing legal frameworks and where appropriate formulate new provision for the implementation of these right-based fisheries regimes.</li> <li>6. States should provide access to alternative livelihoods for fishers who may be affected by the implementation of right-based fisheries regime.</li> <li>7. States should consider the application of input control system, which is less costly as compared with output control system, to monitor and enforce the applied measures, including limiting entry through restrictions on number of fishing units, size of vessels or gears, fishing areas and time spent for fishing.</li> </ol> <p><b>Linkages:</b>  <i>7.1.8 ADD. 1 on fishing capacity; 7.6.4 on ADD. 1 responsible fishing; 7.6.5 on conflicts; and 7.6.10 on resource enhancement.</i></p> <p><b>Coastal Fisheries Management</b></p> <ol style="list-style-type: none"> <li>1. States should identify the most appropriate system of fishing right (user right, group fishing right, geographical use right, zonation) and try them out through pilot projects to verify the effectiveness in the local situation.</li> <li>2. States should clearly define exclusivity of fishing rights.</li> <li>3. States should identify the most appropriate community-based institutions and delegate the management responsibility to grant such</li> </ol>
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	<p>appropriate rights.</p> <ol style="list-style-type: none"> <li>4. States should strengthen human resources capacity in order for these community-based institutions to take up additional responsibilities.</li> </ol> <p><b>Commercial Fisheries Management</b></p> <ol style="list-style-type: none"> <li>1. States should regulate commercial fisheries through an appropriate licensing system.</li> <li>2. States should improve the national vessel registration system in collaboration with responsible agencies and include or incorporate the requirements of licensing into the existing registration system.</li> <li>3. States, under the comprehensive fisheries licensing policy, should ensure that fishers get permission from the management authority first before they can make any changes in their vessels and engines.</li> <li>4. States should consider the use of fishing efficiency (e.g. size of vessels and gears, financial return, etc.) and extent of negative impact to ecosystem as one of the factors to calculate license fees in fisheries laws.</li> </ol>
<p><b>7.3.2 Compatibility of measures</b></p> <p>In order to conserve and manage trans-boundary fish stocks, straddling fish stocks, highly migratory fish stocks and high seas fish stocks throughout their range, conservation and management measures established for such stocks in accordance with the respective competences of relevant States or, where appropriate, through sub-regional and regional fisheries management organizations and arrangements, should be compatible. Compatibility should be achieved in a manner consistent with the rights, competences and interests of the States concerned.</p>	<ol style="list-style-type: none"> <li>1. States should promote regional initiatives (e.g. SEAFDEC) on understanding of status and trend of shared stocks through various technical activities including workshops to be used as a basis for the harmonization of the management of shared stocks.</li> </ol> <p><b>Inland Fisheries Management</b></p> <ol style="list-style-type: none"> <li>1. States should consider appropriate coordination mechanisms for transboundary fish stocks in the river systems shared by several countries.</li> </ol> <p><b>Linkages:</b> 7.3.5 ADD. 1 on inland fisheries.</p>

<p><b>7.3.3 Management plan, framework and actions</b> Long-term management objectives should be translated into management actions, formulated as a fishery management plan or other management framework.</p>	<ol style="list-style-type: none"> <li>1. States should develop national fishery management frameworks and plans to fulfill the long-term management objectives based on the best scientific evidence available. Such management frameworks and plans should be periodically revised based on monitoring results.</li> </ol> <p><b>Coastal/Inland Fisheries Management</b></p> <ol style="list-style-type: none"> <li>2. States should develop a specific management policy and plan for coastal/inland fisheries containing relevant area-specific strategies to be implemented at the community level.</li> </ol>
<p><b>7.3.4 Promote cooperation</b> States and, where appropriate, sub-regional or regional fisheries management organizations and arrangements should foster and promote international cooperation and coordination in all matters related to fisheries, including information gathering and exchange, fisheries research, management and development.</p>	<ol style="list-style-type: none"> <li>1. States should foster and promote cooperation among themselves and with international or regional/sub-regional organizations (e.g. SEAFDEC, IOC, ICLARM, FAO) through consultations in all fisheries related matters for the promotion of sustainable fisheries development and management in the region.</li> </ol> <p><b>Linkages:</b> <i>7.4 ADD. 1 on statistics.</i></p>
<p><b>7.3.5 Non-fisheries organizations</b> States seeking to take any action through a non-fishery organization which may affect the conservation and management measures taken by a competent sub-regional or regional fisheries management organization or arrangement should consult with the latter, in advance to the extent practicable, and take its views into account.</p>	<ol style="list-style-type: none"> <li>1. States should consult and cooperate, possibly through linkages and networking, with non-fisheries organizations/institutions for any activities which may have negative impacts on fisheries.</li> <li>2. States should evaluate the impact of non-fisheries activities and develop the collaborative efforts including the establishment of appropriate committee or task force to clarify rights and obligations of responsible institutions/ organizations to ensure sustainable fisheries development.</li> </ol> <p><b>Linkages:</b> <i>7.3.1 ADD. 1 on decentralization of management.</i></p>
<p><b>7.3.5 ADD. 1 Inland fisheries</b></p>	<p><i>States should emphasize the importance of inland fisheries and aquaculture in planning and policy formulation to improve food security and the livelihoods of rural people. (Millennium Resolution, paragraph 8)</i></p>

	<p><i>States should develop and maintain freshwater fisheries through inter-agency coordination of multiple use of water resources and trans-boundary inland fisheries management, promoting awareness of the importance of freshwater fisheries for local food security, rehabilitating and restoring habitats for migratory freshwater fish, restocking indigenous fish species to enhance productivity and encouraging culture-based freshwater fisheries where appropriate. (Millennium Plan of Action, paragraph 8 of Fisheries Management)</i></p> <ol style="list-style-type: none"> <li>1. States should improve the collection of statistical data on inland capture fisheries, covering all major ecosystems, catchment, types, sizes and importance of the fisheries at species level for planning and development process.</li> </ol> <p><b>Linkages:</b> 7.4 ADD. 1 on statistics.</p> <ol style="list-style-type: none"> <li>2. States should check and reverse degradation of the environment and loss of fisheries habitats by employing rehabilitation and mitigation measures to improve ecological condition by:             <ol style="list-style-type: none"> <li>a. Securing the migration routes and spawning areas for the commercially important species under either national or regional efforts.</li> <li>b. Reducing negative impacts caused by human activities, and</li> <li>c. Integrating inland fisheries management within the multi-purpose use framework of water resources.</li> </ol> </li> <li>3. States should use a more pragmatic management regime involving the fishing communities, industry and other stakeholders in place of conventional command and control measures to prevent over-exploitation of fisheries resources.</li> </ol> <p><b>Linkages:</b> 7.3.1 ADD. 1 on decentralization of management.</p> <ol style="list-style-type: none"> <li>4. States should encourage gathering of data and information through research studies and other cost effective and innovative methods such as involving the local community.</li> </ol> <p><b>Linkages:</b> 7.4 ADD. 1 on statistics.</p> <ol style="list-style-type: none"> <li>5. States should restock inland waters to increase fish production with due caution regarding the risks to</li> </ol>
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	<p>the environment and biodiversity. - To go to 7.6.10</p> <p><b>Linkages:</b> 7.6.10 ADD. 1 on resource enhancement.</p> <ol style="list-style-type: none"> <li>6. States should promote regional cooperation and management of inland fisheries resources in place where the issue is transboundary in nature, such as the Mekong River Basin.</li> <li>7. States should employ a catchment approach to the collection and analysis of statistical data.</li> <li>8. States should use decentralization as a tool for management of inland fisheries.</li> <li>9. States should conduct appropriate surveys prior to stocking inland waters and take measures to monitor and evaluate the impacts and contribution of stocking.</li> <li>10. States should establish measures to conserve both commercial and non-commercial fish species.</li> <li>11. States should establish a collaborative research and development program involving national, regional and international organizations to address the complexities involved in the equitable allocation of water resources for multipurpose utilization.</li> <li>12. States should develop approaches for fisher participation recognizing that fishing is predominantly undertaken on a part-time basis as one component of rural livelihood.</li> </ol>
<b>7.4 Data gathering and management advices</b>	
<p><b>7.4 ADD. 1 Statistics</b></p>	<p><i>States should strengthen fishery statistical systems and maximize their use for fisheries planning and management and develop standard definition and classifications to facilitate regional fishery statistics and information exchange. (Millennium Resolution, paragraph 7)</i></p> <p><i>States should coordinate and decentralize the collection and use of fisheries related statistical data between the national fisheries and other authorities including those responsible for food security, trade, vessel registration, aquaculture and rural development. (Millennium Plan of Action, paragraph 9 of Fisheries Management).</i></p> <p><i>States should maximize the use of national statistical</i></p>

	<p><i>systems by focusing on clear objectives and timely results directly related to fisheries management decision-making and planning process. (Millennium Plan of Action, paragraph 10 of Fisheries Management)</i></p> <p><i>States should apply, where appropriate, regionally standardized definitions and classifications for statistical data to facilitate regional compilation, analysis and data exchange. (Millennium Plan of Action, paragraph 11 of Fisheries Management)</i></p> <p><i>States should develop national statistical mechanisms on inland fisheries and aquaculture in order to provide a basis for their development and the exchange of statistical data and related information, with particular emphasis on the catchment approach in international river basins. (Millennium Plan of Action, paragraph 12 of Fisheries Management)</i></p> <ol style="list-style-type: none"> <li>1. States should strengthen national fisheries statistical systems as part of a national decision framework for policy-making, planning, and monitoring to achieve sustainable fisheries by:             <ol style="list-style-type: none"> <li>a. Adapting the “Regional Plan of Action for the Improvement of Fishery Statistics” and the “Minimum Requirement of a National Fishery Statistical System in ASEAN Region”, with due regard to the current needs and issues of fisheries in the region;</li> <li>b. Clearly determining the objectives and minimum requirements of fishery statistical data and information with particular reference to national and local requirements;</li> <li>c. Taking measures to effectively coordinate the collection and use of fisheries statistical data between the national fisheries authority and other competent authorities including those responsible for trade, vessel registration, catch data, aquaculture and rural development;</li> <li>d. Building capacity at both national and local levels to collect, compile, analyze and disseminate quality statistical data and information in a timely manner as an empirical basis for formulating policies and decisions for fisheries management;</li> <li>e. Prioritizing statistical data and information needs with particular reference to practical indicators for fisheries management and specific requirements of the region’s fisheries;</li> </ol> </li> </ol>
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	<p><b>Linkages:</b> 7.4.2 ADD. 1 on indicators.</p> <ul style="list-style-type: none"> <li>f. Using regionally comparable statistical methodologies to facilitate regional compilation and exchange of data; and</li> <li>g. Reviewing the national fishery statistical systems to identify areas needing improvement.</li> </ul> <p>2. States should consider provision of sustained government support for the improvement and refinement of national fishery statistical systems.</p> <p>3. States should support, upgrade and expand regional fisheries statistical systems by developing regionally compatible methodologies for national statistical data to facilitate regional fisheries assessment and data exchange.</p> <p>4. States should promote technical cooperation between national agencies responsible for fisheries statistics to improve national systems, including development of guidelines and handbooks.</p> <p><b>Linkages:</b> 7.3.4 on institutions; 7.3.5 ADD. 1 on inland fisheries; 7.4.2 on research; and 7.4.2 ADD. 1 on indicators.</p> <p>5. States should expand the classification of some major commercial shark species into the national fisheries statistics considering the national fisheries on sharks (2002 Regional Meeting on “Fish Trade and Environment”<sup>3</sup>.)</p> <p><b>Linkages:</b> 7.6.1 ADD. 2 on management of shark fisheries.</p>
<p><b>7.4.1 Best scientific evidence</b> When considering the adoption of conservation and management measures, the best scientific evidence available should be taken into account in order to evaluate the current state of the fishery resources and the possible impact of the proposed measures on the resources.</p>	<p>1. States should use the best scientific evidence available in the evaluation of the status and trend of fishery resources, which should not be limited to the conventional models, but also should comprise other available data and potential indicators.</p> <p><b>Linkages:</b> 7.1.8 ADD. 1 on fishing capacity; and 7.2.1 on best scientific evidence.</p>

<sup>3</sup> Refers to the ASEAN-SEAFDEC Regional Meeting on Fish Trade and Environment organized from 14-16 October 2002 in Bangkok, Thailand.

<p><b>7.4.2 Research</b>          Research in support of fishery conservation and management should be promoted, including research on the resources and on the effects of climatic, environmental and socio-economic factors. The results of such research should be disseminated to interested parties.</p>	<ol style="list-style-type: none"> <li>1. States should identify the ‘interested parties’ to whom such information from research can be disseminated.</li> <li>2. States should formulate an integrated program between the research exercises and policy and management decision-making process.</li> <li>3. States should strengthen the support for fisheries research to be able to promote and provide sound management advice on fishery conservation and management.</li> <li>4. States should consider the importance of research information to be used by the local policy makers and development planners in formulating management policy and actions.</li> </ol> <p><b>Linkages:</b>  <i>7.2.1 on best scientific evidence; and 7.3.5 ADD. 1 on inland fisheries.</i></p>
<p><b>7.4.2 ADD. 1 Indicators</b></p>	<p><i>States should formulate guidelines to promote the use of practical and simple indicators for multi-species fisheries as a substitute for classical fisheries management models within the national fisheries management framework, with particular regards to facilitating timely local level fisheries management decision. (Millennium Plan of Action, paragraph 6 of Fisheries Management)</i></p> <ol style="list-style-type: none"> <li>1. States should use indicators as a management tool to achieve sustainable fisheries in the region.</li> <li>2. States should formulate appropriate guidelines for the use of indicators as an effective fisheries management decision-making tool within the national fisheries management framework by:             <ol style="list-style-type: none"> <li>a. Identifying indicators on the state, condition and response of fisheries and fisheries resources in management actions.</li> <li>b. Selecting indicators based on the criteria, including the availability of data and information so that the indicators are practical, simple, applicable and understandable to all stakeholders.</li> <li>c. Considering the difficulty of applying model-based fisheries management in small-scale and multi-species fisheries.</li> </ol> </li> </ol>

	<p>d. Considering the two functions of indicators, i) provision of appropriate information for the policy –making decisions, and ii) facilitation of day-to-day management actions at the local level (feed back approach).</p> <p>3. States should incorporate appropriate mechanisms for collecting data and information supporting indicators in routine (national fishery statistical system) and non-routine (research) exercises.</p> <p><b>Linkages:</b> 7.4 ADD. 1 on statistics.</p> <p>4. States should establish effective monitoring systems for fishing operations in order to measure the response of fisheries (feedback approach) and take appropriate management actions using indicators.</p> <p>5. States should develop and evaluate the use of appropriate indicators and methods for selection of suitable indicators on a pilot level for defined fisheries and fisher groups.</p> <p>6. States should examine appropriate level(s) of scaling and aggregation of data for indicators to evaluate fisheries and formulate appropriate policy and management decisions.</p> <p>7. States should consider the establishment of a regional fisheries information center with a view to sharing experiences and lessons on the use of indicators for fisheries management in the region.</p> <p><b>Linkages:</b> 7.5.2 on uncertainties of precautionary approach; and 7.1.8 ADD. 1 on fishing capacity.</p>
<p><b>7.4.3 Studies on alternative management options</b> Studies should be promoted which provide an understanding of the costs, benefits and effects of alternative management options designed to rationalize fishing, in particular, options relating to excess fishing capacity and excessive levels of fishing effort.</p>	<p><b>Linkages:</b> 7.1.8 ADD. 1 on fishing capacity; 7.3.1 ADD. 1 on decentralization of management; and 7.3.1 ADD. 2 on right-based fisheries.</p>



<p><b>7.4.4 Quality and dissemination of statistics</b> States should ensure that timely, complete and reliable statistics on catch and fishing effort are collected and maintained in accordance with applicable international standards and practices and in sufficient detail to allow sound statistical analysis. Such data should be updated regularly and verified through an appropriate system. States should compile and disseminate such data in a manner consistent with any applicable confidentiality requirements.</p>	<p><b>Linkages:</b> <i>7.4 ADD. 1 on statistics.</i></p>
<p><b>7.4.5 Use of data and information for management</b> In order to ensure sustainable management of fisheries and to enable social and economic objectives to be achieved, sufficient knowledge of social, economic and institutional factors should be developed through data gathering, analysis and research.</p>	<p>1. States should develop systems to collect social, economic and institutional information on fisheries and inter-related activities as part of a comprehensive fishery management.</p> <p><b>Linkages:</b> <i>7.1.8 ADD. 1 on fishing capacity; 7.2.1 on best scientific evidence; 7.4 ADD. 1 on statistics; and 7.4.1 on best scientific evidence.</i></p>
<p><b>7.4.6 Comparability of data</b> States should compile fishery-related and other supporting scientific data relating to fish stocks covered by sub-regional or regional fisheries management organizations or arrangements in an internationally agreed format and provide them in a timely manner to the organization or arrangement. In cases of stocks, which occur in the jurisdiction of more than one State and for which there is no such organization or</p>	<p><b>Linkages:</b> <i>7.4 ADD. 1 on statistics.</i></p>

<p>arrangement, the States concerned should agree on a mechanism for cooperation to compile and exchange such data.</p>	
<p><b>7.4.7 Data collection by regional fisheries management organizations /arrangements</b>  Sub-regional or regional fisheries management organizations or arrangements should compile data and make them available, in a manner consistent with any applicable confidentiality requirements, in a timely manner and in an agreed format to all members of these organizations and other interested parties in accordance with agreed procedures.</p>	
<p><b>7.5 Precautionary approach</b></p>	
<p><b>7.5.1 Precautionary approach</b>  States should apply the precautionary approach widely to conservation, management and exploitation of living aquatic resources in order to protect them and preserve the aquatic environment. The absence of adequate scientific information should not be used as a reason for postponing or failing to take conservation and management measures.</p>	<p>1. States should widely apply appropriate precautionary approach in consultation with stakeholders for the management actions, since sufficient data and information are, in most cases, not available.</p> <p><b>Linkages:</b>  7.1.8 ADD. 1 on fishing capacity.</p>
<p><b>7.5.2 Uncertainty of precautionary approach</b>  In implementing the precautionary approach, States should take into account, inter alia, uncertainties relating to the size and productivity of the stocks, reference points,</p>	<p>1. States should consider the use of indicators (e.g. indicator species, catch per unit effort (CPUE), length frequency analysis, marketing indicators, etc.) to overcome the constraints of insufficient data and information, resulting from uncertainties in fish stocks, for use in conventional assessment methods.</p>

<p>stock condition in relation to such reference points, levels and distribution of fishing mortality and the impact of fishing activities, including discards, on non-target and associated or dependent species, as well as environmental and socio-economic conditions.</p>	<p>A time series of data and information collected by the relevant responsible agencies would also help to reduce some of these uncertainties.</p> <p>2. States should develop effective monitoring systems to evaluate and assess fisheries status and trend under decentralized mechanisms.</p> <p><b>Linkages:</b> 7.5.4 on new fisheries; and 7.5.4 ADD. 1 on under-utilized resources.</p>
<p><b>7.5.3 Target and limit reference points</b> States and subregional or regional fisheries management organizations and arrangements should, on the basis of the best scientific evidence available, inter alia, determine:</p> <p>a) stock specific target reference points, and, at the same time, the action to be taken if they are exceeded; and</p> <p>b) stock - specific limit reference points, and, at the same time, the action to be taken if they are exceeded; when a limit reference point is approached, measures should be taken to ensure that it will not be exceeded.</p>	<p>1. States should promote the input control for fisheries management considering the complexities of exploitation of aquatic resources including multi-species nature of fisheries.</p> <p>2. States should recognize the nature of input control which may not be guided by conventional target reference points (e.g. MSY, MEY, TAC, etc.) but adjusted their actions through the effective monitoring exercise (e.g. appropriate level of CPUE, maturity size, etc.) on the fishing practices.</p> <p>3. States should promote appropriate indicators to understand the status and trends of fisheries to improve management actions.</p> <p><b>Linkages:</b> 7.4.2 ADD. 1 on indicators.</p>
<p><b>7.5.4 New fisheries</b> In the case of new or exploratory fisheries, States should adopt as soon as possible cautious conservation and management measures, including, inter alia, catch limits and effort limits. Such measures should remain in force until there are sufficient data to allow assessment of the impact of the fisheries on</p>	<p>1. States should support the use of limited entry through a licensing system to control and regulate new or exploratory fisheries. States should promote further development of such fisheries only when information on the long-term sustainability of the stocks has been obtained. If the data are not sufficient for assessment, management scheme on limitation of catch and effort should be taken into consideration for precautionary approach.</p> <p><b>Linkages:</b> 7.5.4 ADD. 1 on under-utilized resources.</p>

<p>the long-term sustainability of the stocks, whereupon conservation and management measures based on that assessment should be implemented. The latter measures should, if appropriate, allow for the gradual development of the fisheries.</p>	
<p><b>7.5.4 ADD. 1</b> <b>Under-utilized resources</b></p>	<p><i>States should investigate the potential of under utilized fisheries resources and promote their exploitation in a precautionary manner based upon analysis of the best available scientific information under right-based fisheries regimes. (Millennium Plan of Action, paragraph 7 of Fisheries Management)</i></p> <ol style="list-style-type: none"> <li>1. States should assess the potential of new fisheries and expansion of fisheries for under-utilized fisheries resources based on existing information.</li> <li>2. States should collaborate with fishers, researchers and other stakeholders to collect relevant information to further assess the potential resources.</li> <li>3. States should conduct exploratory fishing and research activities to substantiate existing information and to determine the biology and distribution of the resources.</li> <li>4. States should integrate proposed management strategies into the national fisheries management framework and regulate the development of these fisheries based on the precautionary approach by:             <ol style="list-style-type: none"> <li>a. Imposing conditions and limitations on access to these fisheries (rights-based fisheries) including the use of responsible fishing technologies and practices.</li> </ol> <p><b>Linkages:</b> <i>7.6.4 ADD. 1 on responsible fishing.</i></p> <ol style="list-style-type: none"> <li>b. Establishing appropriate mechanisms to monitor the progress of new fisheries toward sustainable development.</li> <li>c. Developing appropriate guidelines for the economic viability of commercial exploitation of the new and under-utilized resources.</li> </ol> </li> <li>5. States should enhance information exchange related</li> </ol>

	<p>to studies of commercial fisheries in the region with particular reference to under-utilized stocks.</p> <ol style="list-style-type: none"> <li>6. States should conduct appropriate studies on the market viability of fish catches (development of value-added products, improvement of distribution and marketing) from new and under-utilized fisheries.</li> <li>7. States should promote a regional collaborative approach to research, management and development of fisheries for new and under-utilized resources.</li> </ol>
<p><b>7.5.5 Measures on emergency basis</b>          If a natural phenomenon has a significant adverse impact on the status of living aquatic resources, States should adopt conservation and management measures on an emergency basis to ensure that fishing activity does not exacerbate such adverse impact. States should also adopt such measures on an emergency basis where fishing activity presents a serious threat to the sustainability of such resources. Measures taken on an emergency basis should be temporary and should be based on the best scientific evidence available.</p>	<ol style="list-style-type: none"> <li>1. States should provide appropriate systems to effectively monitor and evaluate the performance of all fisheries to prevent collapse of particular fishery resources. If emergency cases arise, the States should take appropriate actions in collaboration with concerned agencies in the governments such as stopping altogether fishing activities in certain areas (closed areas and/or seasons). Its deployment shall however require legal support, and public awareness concerning the matter.</li> </ol> <p><b>Linkages:</b>  <i>7.3.5 ADD. 1 on inland fisheries.</i></p> <p><b>Coastal/Inland Fisheries Management</b></p> <ol style="list-style-type: none"> <li>1. Since the coastal and inland fisheries are usually vulnerable to the effects of natural calamities and non-fishery activities, States should regularly monitor the activities conducted by fisheries and non-fishery sectors to avoid further deterioration of the resource base and livelihood.</li> </ol>
<p><b>7.6 Management measures</b></p>	
<p><b>7.6.1 Fishing capacity control</b>          States should ensure that the level of fishing permitted is commensurate with the state of fisheries resources.</p>	<p><b>Linkages:</b>  <i>7.1.8 ADD. 1 on fishing capacity; and 7.3.1 ADD. 2 on right-based fisheries.</i></p>
<p><b>7.6.1 ADD. 1 Conservation and management of marine turtles</b></p>	<ol style="list-style-type: none"> <li>1. States should implement the conservation and management of marine turtles (2002 Regional Meeting on “Fish Trade and Environment”) by:             <ol style="list-style-type: none"> <li>a. Conducting the comprehensive and quantify assessments on the factors of either fisheries or</li> </ol> </li> </ol>

	<p>non-fisheries sectors (e.g. pollution, coastal area development, tourism, transportation, etc.) and their impacts on the reduction of marine turtle population;</p> <ul style="list-style-type: none"> <li>b. Using the outcomes of these assessment as the basis to strengthen the current measures to conserve marine turtles;</li> <li>c. Using the outcomes of these assessment as the basis to strengthen the current measures to conserve marine turtles;</li> <li>d. Collating and disseminating the outcomes of these assessments to enhance the awareness of the importance on marine turtle conservation;</li> <li>e. Publicizing the publications to document the marine turtle conservation programs and activities that have been undertaken in their respective countries for international distribution;</li> <li>f. Emphasizing that a comprehensive marine turtle conservation program is most effective for marine turtle conservation.</li> </ul> <p><b>Linkages:</b> 7.4 on data gathering and management advice.</p>
<p><b>7.6.1 ADD. 2</b> <b>Management of shark fisheries</b></p>	<ul style="list-style-type: none"> <li>1. States should take actions to incorporate shark fisheries management measures within their national fisheries management policy and framework. (2002 Regional Meeting on “Fish Trade and Environment”)</li> <li>2. States should agree that collection and analysis of data and information and efforts to understand the status and trend are the important basis for the appropriate fisheries management policy and actions, and take the following urgent actions (2002 Regional Meeting on “Fish Trade and Environment”) by: <ul style="list-style-type: none"> <li>a. Use of species composition as an indicator for better understanding of dynamic of shark fisheries;</li> <li>b. Improvement of the coordination mechanism with the industries to collect and understand the status and trend of shark fisheries.</li> <li>c. Development of pilot projects to understand and manage shark fisheries;</li> <li>d. Promotion of research activities to maximize utilization of harvested sharks and identification of species of shark products.</li> </ul> </li> </ul> <p><b>Linkages:</b> 7.4 ADD. 1 on statistics, item 5 on shark fisheries</p>

<p><b>7.6.2 Authorization to fish</b> States should adopt measures to ensure that no vessel be allowed to fish unless so authorized, in a manner consistent with international law for the high seas or in conformity with national legislation within areas of national jurisdiction.</p>	<ol style="list-style-type: none"> <li>1. States should issue appropriate authorization related to fishing so that their fishing vessels may operate in international waters or waters under national jurisdiction.</li> <li>2. States should ensure that fishing vessels operating in waters of other States must comply with the regulations of the coastal State and that they must secure appropriate fishing authorization from the flag State.</li> </ol> <p><b>Linkages:</b> <i>7.6.2 on authorization to fish.</i></p> <ol style="list-style-type: none"> <li>3. States should strengthen their national enforcement capabilities to deter any unauthorized fishing within their national jurisdiction and to ensure compliance with their national legislation and international law.</li> <li>4. States should promote right-based fisheries in line with the geographical areas and administrative divisions (community, district, province, state, etc.) by seasons, species, fishing gears, etc. under the decentralized management system.</li> </ol> <p><b>Linkages:</b> <i>7.3.1 ADD. 2 on right-based fisheries.</i></p>
<p><b>7.6.3 Monitoring and reduction of fishing capacity</b> Where excess fishing capacity exists, mechanisms should be established to reduce capacity to levels commensurate with the sustainable use of fisheries resources so as to ensure that fishers operate under economic conditions that promote responsible fisheries. Such mechanisms should include monitoring the capacity of fishing fleets.</p>	<p><b>Linkages:</b> <i>7.1.8 ADD. 1 on fishing capacity.</i></p>
<p><b>7.6.4 Responsible fishing</b> The performance of all existing fishing gear, methods and practices should be examined and measures taken to ensure that fishing gear, methods and practices which are not consistent with</p>	<p><b>Linkages:</b> <i>7.6.4 ADD. 1 on responsible fishing.</i></p>

<p>responsible fishing are phased out and replaced with more acceptable alternatives. In this process, particular attention should be given to the impact of such measures on fishing communities, including their ability to exploit the resource.</p>	
<p><b>7.6.4 ADD. 1</b> <b>Responsible fishing</b></p>	<p><i>States should take measures to prevent unauthorized fishing and eliminate the use of illegal and destructive fishing gears and practices by building awareness of their adverse impacts, the development and promotion of responsible and selective fishing gears and practices, enforcing regulations and encouraging alternative means of livelihood. (Millennium Plan of Action, paragraph 3 of Fisheries Management)</i></p> <ol style="list-style-type: none"> <li>1. States should promote and implement responsible fishing technologies and practices through the formulation of appropriate strategies, policy and action plans to ensure the sustainable use of fisheries resources, and to maintain food and livelihood security in the region. This will be largely achieved by:             <ol style="list-style-type: none"> <li>g. Elimination of illegal and destructive fishing gears and practices.</li> <li>h. Promotion and use of selective and environmentally friendly fishing gears and practices.</li> <li>i. Introduction of appropriate right-based fisheries management.</li> </ol> </li> </ol> <p><b>Linkages:</b> <i>7.3.1 ADD. 2 on right-based fisheries.</i></p> <ol style="list-style-type: none"> <li>2. States should promote awareness on the use of responsible fishing gears and practices as well as negative impacts of illegal and destructive fishing gears and practices, to stakeholders to obtain their full support and compliance.</li> <li>3. States should strengthen collaboration on the development and introduction of selective fishing gears and devices.</li> <li>4. States should effectively enforce laws and regulations on responsible fishing technologies and practices and ensure full compliance thereof through right-based fisheries.</li> </ol>



	<p><b>Linkages:</b> 7.3.1 ADD. 2 on right-based fisheries.</p> <p>5. States should provide appropriate supports, including the creation of alternative job opportunities for fishers and reallocation of fishing ground to the people who cannot find appropriate livelihood.</p> <p><b>Linkages:</b> 7.8.1 ADD. 1 on government subsidies.</p> <p>6. States should prioritize research program on selective fishing gears and devices to support the implementation of conservation and management measures.</p> <p>7. States should assess and evaluate the impacts of different fishing gears and practices on the sustainability of fisheries to facilitate the decision-making process of all stakeholders.</p> <p>8. States should consider area or seasonal closure to protect critical stages of life cycle of fisheries resources.</p> <p>9. States should develop long-term programs to further improve fishing gear selectivity and reduce negative environmental impacts, using a step-by-step approach including assessment, implementation, monitoring, and extension phases.</p> <p>10. States should closely collaborate with stakeholders on the development and use of extension programs, assistance in the application and development of responsible fishing technologies and practices, monitoring of impacts and compliance with regulations.</p> <p>11. States should foster networking, partnership and collaboration to transfer responsible fishing technologies and practices both locally and regionally.</p> <p><b>Linkages:</b> 7.5.4 ADD. 1 on under-utilized resources.</p>
<p><b>7.6.5 Conflicts</b> States and fisheries management organizations and arrangements should</p>	<p>1. States should consider the use of right-based fisheries including zoning systems as an effective means of minimizing conflicts among fishers of</p>

<p>regulate fishing in such a way as to avoid the risk of conflict among fishers using different vessels, gear and fishing methods.</p>	<p>different types of fishing gears and vessels. Such condition may be clearly stipulated within the issued fishing rights and licenses. States should also consider promoting educational programs to upgrade the fishers' awareness and level of compliance.</p> <p><b>Linkages:</b> 7.3.1 ADD. 2 on right-based fisheries.</p> <p><b>Coastal/Inland Fisheries Management</b></p> <ol style="list-style-type: none"> <li>1. States should consider mobilizing community groups and delegate selected management functions and responsibilities to the community level to minimize local conflicts.</li> </ol> <p><b>Linkages:</b> 7.3.1 ADD. 1 on decentralization of management.</p>
<p><b>7.6.6 Traditional practices</b> When deciding on the use, conservation and management of fisheries resources, due recognition should be given, as appropriate, in accordance with national laws and regulations, to the traditional practices, needs and interests of indigenous people and local fishing communities which are highly dependent on fishery resources for their livelihood.</p>	<p><b>Linkages:</b> 7.1.10 on legal issues; and 7.3.1 ADD. 1 on decentralization of management.</p>
<p><b>7.6.7 Evaluation of measures</b> In the evaluation of alternative conservation and management measures, their cost-effectiveness and social impact should be considered.</p>	<ol style="list-style-type: none"> <li>1. States should conduct studies, in addition to the cost-effectiveness and social impact evaluation, on biological and environmental implications arising from the implementation of such conservation and management measures.</li> </ol> <p><b>Linkages:</b> 7.3.1 ADD. 1 on decentralization of management; and 7.3.1 ADD. 2 on right-based fisheries.</p>
<p><b>7.6.8 Efficacy of measures</b> The efficacy of conservation and management measures and their possible interactions should be kept under continuous review. Such measures should, as</p>	<ol style="list-style-type: none"> <li>1. States should ensure coordination of agencies/entities implementing conservation and management plans including periodical revisions conducted to eliminate duplication of efforts and for more effective enforcement.</li> </ol>

<p>appropriate, be revised or abolished in the light of new information.</p>	<p><b>Linkages:</b> 7.3.3 on management plan, framework and actions.</p>
<p><b>7.6.9 Waste, discards, ghost fishing</b> States should take appropriate measures to minimize waste, discards, catch by lost or abandoned gear, catch of non-target species, both fish and non-fish species, and negative impacts on associated or dependent species, in particular endangered species. Where appropriate, such measures may include technical measures related to fish size, mesh size or gear, discards, closed seasons and areas and zones reserved for selected fisheries, particularly artisanal fisheries. Such measures should be applied, where appropriate, to protect juveniles and spanners. States and sub-regional or regional fisheries management organizations and arrangements should promote, to the extent practicable, the development and use of selective, environmentally safe and cost effective gear and techniques.</p>	<ol style="list-style-type: none"> <li>1. States should study on selective, environmentally safe and cost-effective gear and techniques are very much required in the region to minimize the catch component of waste and juveniles, which may cause negative impacts on eco-system.</li> <li>2. States should strongly implement management measures such as closed areas and seasons in critical habitats (e.g. coral reefs, seagrass beds, mangrove areas, etc.) which are important for sustaining fish stocks.</li> </ol> <p><b>Linkages:</b> 7.6.4 ADD. 1 on responsible fishing.</p>
<p><b>7.6.10 Resource restoration</b> States and sub-regional and regional fisheries management organizations and arrangements, in the framework of their respective competencies, should introduce measures for depleted resources and those resources threatened with depletion that facilitate the sustained recovery of such stocks. They should make every effort to ensure that</p>	<p><b>Linkages:</b> 7.6.10 ADD. 1 on resource enhancement.</p>

<p>resources and habitats critical to the well-being of such resources which have been adversely affected by fishing or other human activities are restored.</p>	
<p><b>7.6.10 ADD. 1</b> <b>Resource enhancement</b></p>	<p><i>States should work toward the conservation and rehabilitation of aquatic habitat essential to enhancing fisheries resources. (Millennium Resolution, paragraph 9)</i></p> <p><i>States should optimize the use of inshore waters through resource enhancement programs such as promoting the installation of artificial reefs and structures, encouraging coordinated and effective planning for coastal fisheries management programs, undertaking environmental impact assessment studies, restocking of commercially important fish species and develop human resource for the implementation of such programs (Millennium Plan of Action, paragraph 4 of Fisheries Management)</i></p> <ol style="list-style-type: none"> <li>1. States should develop the national policy and plan on the rehabilitation of the coastal ecosystem.</li> <li>2. States should take measures to restore critical aquatic habitats and resources, which have been extensively degraded by various human activities.</li> <li>3. States should assess the feasibility and environmental impact of artificial reefs and other man-made structures in inshore waters with respect to resource enhancement and coastal zone management objectives.</li> <li>4. States should involve the stakeholders in the resource rehabilitation programs such as the deployment and management of artificial reefs.</li> <li>5. States should promote re-stocking activities (seed release programs) from hatchery-produced and/or wild collected seeds in areas where they are considered to be feasible particularly in localities within a range of right-based fisheries.</li> </ol> <p><b>Linkages:</b> <i>7.3.1 ADD. 2 on right-based fisheries.</i></p> <ol style="list-style-type: none"> <li>6. States should enhance marine engineering capabilities to address the physical constraints in</li> </ol>

	<p>the construction, installation and placement of resource enhancement structures.</p> <p>7. States should consider that the implementation of right-based fisheries, more specifically exclusive fishing rights, and the enhancement of inshore habitat by artificial reefs and structures are prerequisites for the successful implementation of a re-stocking program.</p> <p><b>Linkages:</b> <i>7.3.1 ADD. 2 on right-based fisheries.</i></p> <p>8. States should conduct research on the released species' potential recapture rate and its impact on ecosystem.</p> <p>9. States should ensure optimum recapture of the released stock through effective management measures including predator control.</p> <p>10. States should develop closed areas (marine parks, marine protected areas) in areas such as coral reefs to protect fragile coastal ecosystems. States should consider social impacts and enforcement problems in planning such measures through consultation with concerned community.</p> <p>11. States should ensure active participation of fishers and coastal communities in the planning and implementation of resource enhancement programs.</p> <p>12. States should consider the establishment of a network of regional expertise on resource enhancement.</p> <p><b>Inland Fisheries Management</b></p> <p>1. States should further encourage a culture-based fisheries program in inland water where favorable exploitation pattern and management mechanisms prevail.</p> <p><b>Linkages:</b> <i>7.3.5 ADD. 1 on inland fisheries.</i></p> <p>2. States should carefully assess the impacts of the introduction and transportation of non-indigenous and exotic species to the natural habitats and take preventive measures to avoid negative impacts for the local ecosystem.</p>
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<b>7.7 Implementation</b>	
<p><b>7.7.1 Legal implementation</b> States should ensure that an effective legal and administrative framework at the local and national level, as appropriate, is established for fisheries resource conservation and fisheries management.</p>	<ol style="list-style-type: none"> <li>1. States should have effective legal and administrative frameworks, especially in the enforcement of rules and regulations of fisheries resource conservation and fisheries management. Fishery laws, rules and regulations should be consolidated both at the national and local levels and periodically evaluated and revised according to the evolved situation on fisheries.</li> <li>2. States should harmonize legal and administrative frameworks on fisheries management with those developed by other sectors.</li> <li>3. States should formulate appropriate legal instruments with respect to fisheries management and review existing instruments to incorporate the relevant innovative fisheries management as well as to enhance law enforcement and implementation of measures.</li> </ol>
<p><b>7.7.2 Non-compliance</b> States should ensure that laws and regulations provide for sanctions applicable in respect of violations, which are adequate in severity to be effective, including sanctions which allow for the refusal, withdrawal or suspension of authorizations to fish in the event of non-compliance with conservation and management measures in force.</p>	<ol style="list-style-type: none"> <li>1. States should strictly enforce fishery laws, rules and regulations with appropriate penalties and punishment to prevent illegal acts. There should likewise be provisions for the cancellation or suspension of fishing licenses of offenders found guilty of undertaking such unlawful acts. <i>Linkages:</i> <i>7.3.1 ADD. 2 on right-based fisheries.</i></li> <li>2. States should enhance public awareness on the laws and enforcement thereof and possible sanctions through all kind of media.</li> </ol>
<p><b>7.7.3 MCS</b> States, in conformity with their national laws, should implement effective fisheries monitoring, control, surveillance and law enforcement measures including, where appropriate, observer programs, inspection schemes and vessel monitoring systems. Such measures should be promoted and, where appropriate,</p>	<ol style="list-style-type: none"> <li>1. States should establish their respective national fisheries monitoring, control and surveillance (MCS) measures, including law enforcement, and where appropriate, other useful management measures like observer programs, inspection schemes and vessel monitoring systems. Joint enforcement operations with other national enforcement agencies (e.g. navy, maritime police, coastguard) may be initiated in situations where shortage of manpower is evident to undertake an effective surveillance.</li> </ol>

<p>implemented by subregional or regional fisheries management organizations and arrangements in accordance with procedures agreed by such organizations or arrangements.</p>	<p><b>Linkages:</b> 7.1.7 on MCS.</p> <p><b>Coastal/Inland Fisheries Management</b></p> <ol style="list-style-type: none"> <li>1. States should develop an appropriate and cost effective fisheries MCS system with supporting policy and involvement of communities.</li> </ol>
<p><b>7.7.4 Financial and other contributions</b> States and sub-regional or regional fisheries management organizations and arrangements, as appropriate, should agree on the means by which the activities of such organizations and arrangements will be financed, bearing in mind, inter alia, the relative benefits derived from the fishery and the differing capacities of countries to provide financial and other contributions. Where appropriate, and when possible, such organizations and arrangements should aim to recover the costs of fisheries conservation, management and research.</p>	<ol style="list-style-type: none"> <li>1. States should consider strengthening the capability of existing regional organizations on regional fisheries management. States should provide assistance, either in the form of funding or manpower or both in implementing conservation and management activities at the regional level.</li> </ol>
<p><b>7.7.5 Compliance</b> States which are members of or participants in subregional or regional fisheries management organizations or arrangements should implement internationally agreed measures adopted in the framework of such organizations or arrangements and consistent with international law to deter the activities of vessels flying the flag of non-members or non-participants which engage in activities which undermine the effectiveness of conservation and management measures established by such</p>	

<p>organizations or arrangements.</p>	
<p><b>7.8 Financial institution</b></p>	
<p><b>7.8.1 Requirement of financial institutions</b>          Without prejudice to relevant international agreements, States should encourage banks and financial institutions not to require, as a condition of a loan or mortgage, fishing vessels or fishing support vessels to be flagged in a jurisdiction other than that of the State of beneficial ownership where such a requirement would have the effect of increasing the likelihood of non-compliance with international conservation and management measures.</p>	
<p><b>7.8.1 ADD. 1 Government subsidies</b></p>	<p><i>In collaboration with international technical organizations such as the Food and Agriculture Organization of the United Nations (FAO) and the World Trade Organization (WTO) assess the impact of government subsidies on fisheries, particularly on the needs of small-scale fisheries in the ASEAN region and sustainable fisheries. (Millennium Plan of Action, paragraph 2 of Fish Trade)</i></p> <ol style="list-style-type: none"> <li>1. States should review subsidies in all sub-sectors of fisheries at suitable intervals and carry out in-depth studies of the effects of subsidies on resource sustainability and trade in fish and fish products before deciding on removal or introduction of fisheries subsidies.</li> <li>2. States should phase out subsidies which contribute to unsustainable fisheries especially those encouraging expansion of fishing capacity for fully exploited resources.</li> <li>3. States should review, in collaboration with international technical organizations such as FAO, the empirical effect of fisheries subsidies on essential social and developmental issues, particularly in support of poor and disadvantaged</li> </ol>



	<p>segments of the people in the region for effective fisheries management.</p> <p>4. States should cooperate for the establishment of a regional policy on fisheries subsidies, considering the regional specific requirements.</p> <p><b>Linkages:</b> <i>7.1.8 ADD. 1 on fishing capacity; and 7.6.4 ADD. 1 on responsible fishing.</i></p>
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## **CHAPTER V**

### **FOLLOW-UP ACTIVITIES**

To support the formulation and implementation of the Code of Conduct for Responsible Fisheries (CCRF) and upholds the general principles and standards provided therein through introducing the CCRF in Southeast Asia, SEAFDEC, as the premier fisheries center in the region with a long-term commitment to sustainable development and management of the region's fisheries and coastal resources, has initiated a comprehensive project on the Regionalization of the Code of Conduct for Responsible Fisheries.

The Regional Guidelines for Responsible Fisheries in Southeast Asia: Responsible Fisheries Management, an elaboration of the CCRF Article 7 on Fisheries Management specifically aims to address the missing and diluted areas of the global CCRF with respect to small-scale/coastal fisheries, which is the dominant fisheries sector in Southeast Asia as also clarifies relevant areas and issues of the global CCRF on commercial fisheries.

This Regional Guidelines is a first step toward the achievement of sustainable fisheries management in the Southeast Asian region. To achieve the objectives, there is a need to encourage and making an effort to promote and facilitate actions for the implementation of the Regional Guidelines for Responsible Fisheries Management. The level of implementation and action status of issues will need to be promoted by both the Southeast Asian States and the regional organization like SEAFDEC as follows.

#### **Role of the Southeast Asian States**

Along with the issues and articles that the guidelines contain, using the Regional Guidelines as basis, States may take the necessary action to appropriately manage fisheries within their jurisdictions to achieve sustainable fisheries management as the following:

- Dissemination and distribution of the Regional Guidelines to policy-makers and fisheries stakeholders in the States.
- Develop, improve and formulate national policies to introduce the Regional Guidelines.
- Initiate necessary action identifies in the Regional Guidelines.
- Prepare supplementary guidelines to further clarify and elaborate the issues and specific subjects to be promoted in the Regional Guidelines.
- Improve the national legal instruments.
- Promote the required policy and technical research to obtain needed or detailed information.

## **Role of SEAFDEC**

SEAFDEC, as a regional organization, in collaboration with its member countries, will further develop programs to facilitate the implementation of the CCRF in the Southeast Asian region. The following proposed activities will be undertaken by the Secretariat or may be carried out in collaboration with concerned Technical Departments and with ASEAN-SEAFDEC Member Countries:

- Dissemination and distribution of the Regional Guidelines to policy-makers and fisheries stakeholders in the Southeast Asia.
- Facilitate development, improvement and formulation of national policies to introduce the Regional Guidelines.
- Initiate and implement regional and national programs supporting the Regional Guidelines including the Decentralization of Fisheries Management; Rights-Based Fisheries; Institutionalization of the Community-Based Coastal Resource Management; Fishery Statistics; Indicators for Fisheries Management; and etc.

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## **LIST OF SUB-ARTICLES, THE RESOLUTION AND PLAN OF ACTIONS AND THEIR FOCUSED ISSUES**

### **I. The original CCRF Article 7**

<b>Sub-articles</b>	<b>Focused Issues</b>	<b>Page</b>
<b>7.1</b>	<b>General</b>	13
7.1.1	Long-term and sustainable use of resources	14
7.1.2	Consultation	15
7.1.3	Cooperation	16
7.1.4	Members of fisheries management organizations/arrangements	17
7.1.5	Non-members of fisheries management organizations/arrangements	17
7.1.6	Involvement in fisheries management organizations/arrangements	18
7.1.7	MCS and enforcement	18
7.1.8	Excess fishing capacity	19
7.1.9	Transparency	21
7.1.10	Legal issues	21
<b>7.2</b>	<b>Management Objectives</b>	22
7.2.1	Long-term management objectives	22
7.2.2	Measures for the objectives	22
7.2.3	Target stocks and their ecosystems	23
<b>7.3</b>	<b>Management framework and procedures</b>	24
7.3.1	Ecosystem management	24
7.3.2	Compatibility of measures	28
7.3.3	Management plan, framework and actions	29
7.3.4	Promote cooperation	29
7.3.5	Non-fisheries organizations	29
<b>7.4</b>	<b>Data gathering and management advice</b>	31
7.4.1	Best scientific evidence	33
7.4.2	Research	34
7.4.3	Studies on alternative management options	35
7.4.4	Quality and dissemination of statistics	36
7.4.5	Use of data and information for management	36
7.4.6	Comparability of data	36
7.4.7	Data collection by regional fisheries management organizations/arrangements	37
<b>7.5</b>	<b>Precautionary approach</b>	37
7.5.1	Precautionary approach	37
7.5.2	Uncertainty of precautionary approach	37
7.5.3	Target and limit reference points	38
7.5.4	New fisheries	38
7.5.5	Measures on an emergency basis	40

<b>7.6</b>	<b>Management measures</b>	40
7.6.1	Fishing capacity control	40
7.6.2	Authorization to fish	42
7.6.3	Monitoring and reduction of fishing capacity	42
7.6.4	Responsible fishing	42
7.6.5	Conflicts	44
7.6.6	Traditional practices	45
7.6.7	Evaluation of measures	45
7.6.8	Efficacy of measures	45
7.6.9	Waste, discards, ghost fishing	46
7.6.10	Resource restoration	46
<b>7.7</b>	<b>Implementation</b>	49
7.7.1	Legal implementation	49
7.7.2	Non-compliance	49
7.7.3	MCS	49
7.7.4	Financial and other contributions	50
7.7.5	Compliance	50
<b>7.8</b>	<b>Financial institutions</b>	51
7.8.1	Requirement of financial institutions	51

## II. The Resolution and/or the Plan of Action

No.	Items	Focused Issues	Page
1.	7.1 ADD. 1	Regional guidelines on the CCRF	13
2.	7.1.2 ADD. 1	Stakeholder involvement	15
3.	7.1.2 ADD. 2	Collaboration among government agencies	16
4.	7.1.8 ADD. 1	Fishing capacity	19
5.	7.3.1 ADD. 1	Decentralization of management	24
6.	7.3.1 ADD. 2	Right-based fisheries	26
7.	7.3.5 ADD. 1	Inland fisheries	29
8.	7.4 ADD. 1	Statistics	31
9.	7.4.2 ADD. 1	Indicators	34
10.	7.5.4 ADD. 1	Under-utilized resources	39
11.	7.6.4 ADD. 1	Responsible fishing	43
12.	7.6.10 ADD. 1	Resource enhancement	47
13.	7.8.1 ADD. 1	Government subsidies	51

## SUBJECT INDEX

Subject	Sub-articles
Artificial reefs	7.2.2, 7.6.10
Assessment	7.1.8, 7.2.1, 7.2.2, 7.2.3, 7.4, 7.5.2, 7.5.4, 7.6.4, 7.6.10
Authorization	7.6.2, 7.7.2
Authorization to fish	7.6.2
Biodiversity	7.1.1, 7.2.2, 7.3.5
Buy-back scheme	7.1.8
Catch per unit effort (CPUE)	7.5.2
Catchment approach	7.3.5, 7.4
Closed area	7.2.2, 7.5.5, 7.6.9, 7.6.10
Closed season	7.1.8, 7.2.2, 7.6.9
Coastal fisheries	7.1.1, 7.1.3, 7.1.7, 7.1.8, 7.2.2, 7.3.1, 7.6.10
Coastal fisheries management	7.1.1, 7.1.3, 7.1.7, 7.1.8, 7.2.2, 7.3.1, 7.6.10
Coastal resource management	7.3.1
Code of Conduct of Responsible Fisheries (CCRF)	7.1
Collaboration among government agencies	7.1.2
Co-management (CM)	7.3.1
Commercial fisheries	7.1.1, 7.3.1, 7.5.4
Community-based	7.3.1
Compliance	7.1.2, 7.1.7, 7.1.9, 7.6.2, 7.6.4, 7.6.5, 7.7.2, 7.7.5, 7.8.1
Conflicts	7.2.2, 7.3.1, 7.6.5
Conservation and management	7.1.1, 7.1.3, 7.1.4, 7.1.5, 7.1.7, 7.1.10, 7.2.2, 7.3.2, 7.3.5, 7.4.1, 7.4.2, 7.5.1, 7.5.4, 7.5.5, 7.6.4, 7.6.6, 7.6.7, 7.6.8, 7.7.2, 7.7.4, 7.7.5, 7.8.1
Consultation	7.1.1, 7.1.2, 7.1.3, 7.1.4, 7.1.8, 7.1.9, 7.1.10, 7.2.2, 7.3.1, 7.3.4, 7.5.1, 7.6.10
Critical habitats	7.6.9
Culture-based fisheries	7.6.10
Data gathering	7.4
Decentralization	7.1.1, 7.1.2, 7.1.7, 7.1.10, 7.2.2, 7.3.1, 7.3.5, 7.4.3, 7.6.5, 7.6.6, 7.6.7
Discards, waste, ghost fishing	7.2.2, 7.5.2, 7.6.9
Ecosystem	7.2.2, 7.2.3, 7.3.1, 7.3.5, 7.6.10
Ecosystem management	7.3.1



Enforcement	7.1.7, 7.6.2, 7.6.8, 7.6.10, 7.7.1, 7.7.2, 7.7.3
Environmental Impact Assessment (EIA)	7.2.2
Evaluation	7.4.1, 7.6.7
Excess fishing capacity	7.1.8, 7.2.2, 7.4.3, 7.6.3
Exploitation	7.2.2, 7.3.5, 7.5.1, 7.5.3, 7.5.4, 7.6.10
Fish stocks	7.1.3, 7.2.3, 7.3.2, 7.4.6, 7.5.2, 7.6.9
Fisheries management	7.1, 7.1.1, 7.1.2, 7.1.3, 7.1.4, 7.1.5, 7.1.6, 7.1.7, 7.1.8, 7.1.9, 7.1.10, 7.2.1, 7.2.2, 7.3.1, 7.3.2, 7.3.3, 7.3.4, 7.3.5, 7.4, 7.4.2, 7.4.6, 7.4.7, 7.5.3, 7.5.4, 7.5.5, 7.6.4, 7.6.5, 7.6.9, 7.6.10, 7.7.1, 7.7.3, 7.7.4, 7.7.5, 7.8.1
Fisheries management organization	7.1.4, 7.1.5, 7.1.6, 7.1.9, 7.1.10, 7.2.1, 7.3.2, 7.3.4, 7.3.5, 7.4.6, 7.4.7, 7.5.3, 7.6.5, 7.6.9, 7.6.10, 7.7.3, 7.7.4, 7.7.5
Fisheries statistic	7.4
Fishing capacity	7.1.1, 7.1.2, 7.1.7, 7.1.8, 7.2.2, 7.3.1, 7.4.1, 7.4.2, 7.4.3, 7.4.5, 7.5.1, 7.6.1, 7.6.3, 7.8.1
Fishing effort	7.1.8, 7.4.3, 7.4.4
Fishing gear selectivity	7.6.4
Fishing license	7.7.2
Fishing right	7.3.1, 7.6.5, 7.6.10
Food security	7.3.5, 7.4
Framework	7.1.1, 7.1.7, 7.2.2, 7.3, 7.3.1, 7.3.3, 7.3.5, 7.4.1, 7.4.2, 7.5.4, 7.6.8, 7.6.10, 7.7.1, 7.7.5
Indicators	7.1.8, 7.4.1, 7.4.2, 7.5.2, 7.5.3
Inland fisheries	7.1.1, 7.1.2, 7.1.3, 7.1.7, 7.2.3, 7.3.1, 7.3.2, 7.3.3, 7.3.5, 7.4, 7.4.2, 7.5.5, 7.6.5, 7.6.10, 7.7.3
Management measures	7.1.1, 7.1.2, 7.1.4, 7.1.5, 7.1.7, 7.1.8, 7.1.10, 7.2.1, 7.3.1, 7.3.2, 7.3.5, 7.4.1, 7.5.1, 7.5.4, 7.5.5, 7.6, 7.6.4, 7.6.7, 7.6.8, 7.6.9, 7.6.10, 7.7.2, 7.7.3, 7.7.5, 7.8.1
Management Objectives	7.1.1, 7.2, 7.2.1, 7.3.3, 7.6.10
Management plan	7.1, 7.1.1, 7.3.3, 7.6.8

*Regional Guidelines for Responsible Fisheries Management in Southeast Asia*

Marine turtles	7.4, 7.6.1
Maximum sustainable yield (MSY)	7.2.1, 7.5.3
Monitoring, Control and Surveillance (MCS) System	7.1.7, 7.7.3
Multi-species	7.2.1, 7.2.3, 7.4.2, 7.5.3
New fisheries	7.5.2, 7.5.4
Non-compliance	7.1.2, 7.7.2, 7.8.1
Open access regime	7.3.1
Output control system (catch control)	7.3.1
Over-exploitation	7.3.5
Pilot project	7.3.1
Precautionary approach	7.18, 7.4.2, 7.5, 7.5.1, 7.5.2, 7.5.4
Regional guidelines on the CCRF	7.1
Research	7.1.3, 7.2.3, 7.3.4, 7.3.5, 7.4, 7.4.2, 7.4.5, 7.5.4, 7.6.4, 7.6.10, 7.7.4
Resource enhancement	7.1.1, 7.1.2, 7.2.2, 7.3.1, 7.3.5, 7.6.10
Responsible fishing	7.1, 7.1.2, 7.1.10, 7.2.2, 7.3.1, 7.5.4, 7.6.4, 7.6.9, 7.8.1
Right-based fisheries	7.1.1, 7.1.2, 7.1.8, 7.1.10, 7.3.1, 7.4.3, 7.5.4, 7.6.1, 7.6.2, 7.6.4, 7.6.5, 7.6.7, 7.6.10, 7.7.2
Shared stock	7.1.3, 7.1.4, 7.3.2
Shark fisheries	7.4, 7.6.1
Small scale	7.3.1
Stakeholders	7.1.2, 7.1.8, 7.1.9, 7.1.10, 7.2.2, 7.3.5, 7.4.2, 7.5.1, 7.5.4, 7.6.4, 7.6.10
Straddling fish stock	7.1.3, 7.3.2
The International Plan of Action (IPOA)	7.18
Traditional practices	7.1.10, 7.6.6
Transboundary fish stock	7.1.3, 7.3.2
Transparency	7.1.2, 7.1.9
Tropical fisheries	7.2.1, 7.2.2, 7.2.3
Under-utilized resources	7.5.2, 7.5.4, 7.6.4