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Final Draft of The Regional Action Plan for Sustainable Management of Indo-pacific mackerel

Presented by :

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Technical Consultative Meeting on Drafting of the Regional Action Plan for Management of Transboundary Species Indo-Pacific Mackerel in the Gulf of Thailand Sub-region, 12-13 September 2019, Chonburi, Thailand

GOAL (proposed)

1. Sustainable Indo-pacific mackerel fisheries in the Gulf of Thailand sub-region through holistic management approach by 2030

OUTCOME

1. Sustainability of short mackerel resources through the implementation of fishery management plan
2. Accurate and comprehensive information for short mackerel make available and use for management responses
3. Well-being of people engaged in short mackerel fishery sustained
4. The template for the development of management plan for short mackerel applicable for other small pelagic species

GOVERNANCE DIMENSION

Overall Objective: Regional/sub regional fisheries management mechanism are in place building upon from national regulation and management scheme

Specific Objectives

- 1) Fisheries Management Mechanism developed and approved (including fisheries management plan and arrangement, the effective of regulation)
- 2) Data management system are enhanced and considered regional/sub-regional standardization data management system in place
- 3) Standard for assessing fishing effort large, medium and small-scale fishery agreed
- 4) Understandings on national law and management schemes within the sub-regional are communicated and applied
- 5) Impact of unregulated and unreported fishing assessed
- 6) Catch documentation system applied as a tool to improve traceability of the short mackerel fishery

Knowledge Gaps/Issues	Actions	Sp.Obj	Respons
Insufficient catch and landing data	Develop the SOP/technical guidance for data collection (including catch data, biological data)	2	SEAFDEC University
	To further develop catch documentation	2	Government ag
	Harmonization/standardized on data collection and develop database system	2	Fishery research
Insufficient biological data collection	Conduct capacity building program for data collection to enumerator and scientist, researchers	3	SEAFDEC University Government ag
	Conduct time series data collection with standardized method	3	Fishery research
Fishing effort (include commercial and small scale)	Link to the catch documentation include commercial and small-scale fishery (as available)	4	Government ar
	Regular monitor data collection on fishing effort capture production (include commercial and small scale)	4	sector
Fisheries Management Mechanism (including fisheries management plan and arrangement, the effective of regulation)	Develop fisheries management plan for short mackerel at national and sub-regional level	1	SEAFDEC University Government ag Fishery research All stakeholder others)
	Establish regional cooperation on monitoring, control and surveillance	1	Existing national partners/network
	Raise awareness of both small-scale fishers and commercial-scale fishers <ul style="list-style-type: none"> o Policy and regulations o Management measures o Sustainable utilization o Involvement the participation, considering gender sensitivity 	1	SEAFDEC University Government ag Fishery research All stakeholder
	Promote stakeholder consultation among researchers, managers and stakeholders using EAFM	1	SEAFDEC University Government ag Fishery research All stakeholder International or (FAO, NOAA, et
	Conduct habitat rehabilitation and stock enhancement programs	1	SEAFDEC University Government ag Fishery research All stakeholder
	Comparative review of national law and regulations	5	Government ar person
Understanding national law and regulations	Disseminate knowledge and information on the conservation and management of Indo-pacific mackerel to fisheries communities and students	5	Government Other stakehol

SOCIAL DIMENSION

Overall Objective: social responsibility and involvement in fisheries management achieved

Specific Objectives

- 1) Understanding the social condition of people involving in fishery at local and national level.
- 2) Increase participation and involvement of stakeholder in various level.
- 3) Resolve conflict on land and resource use
- 4) Build awareness and capacity in all level

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Knowledge Gaps/Issues	Actions	Sp.Obj	Respon
Social and economic at local and national level	Conduct a baseline survey based on available information on social and economic at local and national level (S)	1	Government University
Traditional fishing (indigenous knowledge and social responsibility)	Improve and disseminate the best practice to other (indigenous people)	1	Government
People engagement in fishery activity (include small scale fishery and large scale/commercial fishery, processing)	Conduct stakeholder analysis for understanding the important and influence of stakeholder in various level	2	Government University
People engagement in policy making (fisherfolk organization, academy, private sector,	Promote Public Private Partnership	2	Government
	Promote multi stakeholder engagement in policy making	2	Government a stakeholder
Social structure (community small scale and large scale, gender, migrant labor, and fisher)	Encourage gender equality based on understanding of social structure in community	2	Government a stakeholder
Conflict on land and resource use	Promote stakeholder consultation	3	Government a stakeholder
	Promote marine spatial planning and coastal zone management	3	Government Resource pers Relevant stake
Awareness	Distribute brochures or any media (e.g. digital media) to promote fisheries management and regulations	4	SEAFDEC Government Relevant stake
	Capacity building and experts exchange	4	
	Fishing gear technology for eco-friendly (Reduce bycatch, cost and expenditures)	4	



ECONOMIC DIMENSION

Overall Objective: equal distribution of economic benefit, economic return and employment opportunities

Specific Objectives:

- 1) Ensure the national government and private sector commitment for long-term funding and support.
- 2) Understanding the structure and ownership of asset within fishing industry (large, medium and small scale).
- 3) Maximized economic benefit return for management response and reduced unequal distribution.

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Knowledge Gaps/Issues	Actions	Sp.Obj	Respon
Funding	To ensure the national government commitment for long-term funding and support	1	Government Private sector
	Explore various potential donor	1	Funding agen
	Promote capital access through micro finance scheme	1	
	Promote corporate social responsibility	1	
Structure and ownership of asset within the fishing industry (large and small scale)	Review structure and ownership of asset within the fishing industry (large, medium and small scale) for management responses	2	Government Resource pers
Benefit and economic return and unequal distribution	Assess benefit and economic return throughout the value chain	3	Government Resource pers
Increase of cost (fuel and other inputs)	To ensure the fuel and other input exist for local fishermen	3	Government
Fisheries employment revenue	To create the alternative work	3	Government Private Sector
	Require the contract among people engage in fishing	3	Relevant staki

ECOSYSTEM DIMENSION

Overall Objective

Maintain healthy ecosystem for the wellbeing of short mackerel resources

Objectives

- 1) Understand current status and improve the knowledge of short mackerel resources for scientific based management
- 2) Understand various habitats of short mackerel throughout its life cycle

Knowledge Gaps/Issues	Actions	Sp.Obj	Respo
1.1 Migratory route	Update, further define and confirm the migratory route at national, sub-regional or regional area	2	Fisheries A National Re Institutions Regional In
	Conduct tagging program, e-DNA, DNA	1	Fisheries A Research Ir
1.2 Spawning and nursery grounds (including dispersion and distribution of fish larvae)	Conduct comprehensive larvae survey (e.g ichthyoplankton)	1	Fisheries A Research Ir
	Study on critical habitats	2	Fisheries A Research Ir
1.3 Seasonal changes	Conduct comprehensive larvae survey (e.g ichthyoplankton)	1	Fisheries A Research Ir SEAFDEC
	Conduct reproductive biology study	1	Fisheries A Research Ir SEAFDEC
1.4 Physical and chemical oceanographic conditions and ocean circulation	Conduct oceanography survey	2	Fisheries A Research Ir SEAFDEC
	Develop oceanographic modelling	2	Fisheries A Research Ir IOC/WESTF
1.5 Stock structure	Conduct satellite imagery (GIS, remote sensing) analysis	2	Fisheries A Research Ir
	Conduct DNA study, otolith, tagging, etc.	1	Fisheries A Research Ir SEAFDEC
1.6 Stock status at national and regional of <i>R. brachysoma</i> (distribution and abundance)	Conduct stock assessment at national, sub-regional or regional level	1	Fisheries A Research Ir SEAFDEC
	Share data, information and findings from scientific research to relevant stakeholders	1	Fisheries A Research Ir SEAFDEC
	Standardized data collection for regional stock assessment	1	Fisheries A Research Ir SEAFDEC
	Develop modeling for stock assessment	1	Fisheries A Research Ir SEAFDEC, FAO
1.7 Species Identification	Provide capacity building on species identification of small size (juvenile) and larval fishes	1	Fisheries A Research Ir SEAFDEC
1.8 Status and Trends	Investigate the trend of short mackerel catch at national, sub-regional levels	1	Fisheries A Research Ir SEAFDEC

CLIMATE CHANGE IMPACT

Overall objective:

Adaptive management based on understanding the impact of climate change and disaster

Objectives:

- 1) adaptive management measures **in place** in response to the impact of climate change and disaster to short mackerel fisheries and habitats
- 2) mitigation and precautionary measures **adopted** to compensate the effects of climate change

Knowledge Gaps/Issues	Actions	Sp.Obj	Responsibility
5.1 IMPACT of climate change to fish migration route	Assess the impact of climate change/disaster/anthropogenic activities to fish migration route, habitat and behavior	1	Fisheries and Environmenta Research Insti SEAFDEC, UNE UNDP, FAO
	Study effect of environmental changes on the migratory pattern and spawning patterns based on climate change	1	Fisheries and Environmenta Research Insti SEAFDEC, UNE UNDP, FAO
	Share information from the findings of scientific research to both fisheries managers and fishers	2	Fisheries and Environmenta Research Insti SEAFDEC, UNE UNDP, FAO
5.2 Sensitivity of species on critical habitats and environment impact to ecosystem (pollution, climate change, etc)	Conduct study on sensitivity of species on environment change (pollution, climate change, etc) to support the management response	1	Fisheries and Environmenta Research Insti SEAFDEC, UNE UNDP, FAO
	Study on the critical habitats (spawning and grounds)	1	Fisheries and Environmenta Research Insti SEAFDEC, UNE UNDP, FAO
	Study effect of environmental changes on the migratory pattern and spawning patterns	1	Fisheries and Environmenta Research Insti SEAFDEC, UNE UNDP, FAO
	Data sharing (assign focal person to share information)	1	Fisheries and Environmenta Research Insti SEAFDEC, UNE UNDP, FAO
5.3 Capacity building and experts exchange	Training, workshop, conference and experts exchange on CC impacts	1,2	Fisheries and Environmenta Research Insti SEAFDEC, UNE UNDP, FAO