WP03A

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

AGENDA 5:

KNOWLEDGE GAPS FOR MANAGEMENT OF

R. Brachysoma ***(Indo-pacific Mackerel/short mackerel)***

PART 1: INFORMATION COMPILATION BY RFPNS

I. INTRODUCTION

This paper aims to analyze the issues/knowledge gaps on fisheries management of the transboundary species of *Rastrelliger Brachysoma* in the Gulf of Thailand and the South China sea sub-region. Through the brainstorming among the relevant countries around the sub-regions, the effective fisheries management of *R. Brachysoma* will be drafted. The results from the discussion will include not only the Regional Action Plan (RAP)for management of the transboundary species *R. Brachysoma*, but also roadmap to guide country's implementation. It is also expected that the results of RAP and Roadmap will be further addressed for consideration at the SEAFDEC Council, Fisheries Consultative Group of the ASEAN-SEAFDEC Strategic Program (FCG/ASSP), and ASEAB Sectoral Working Group on Fisheries (ASWGfi) for support and endorsement.

II. KNOWLEDGE GAPS ON MANAGEMENT OF TRANSBOUDARY SPECIES: *R. Brachysoma*

Country Name	Issues/Problems	Knowledge gaps
CAMBODIA	• **Decreasing** number of the wild population of Indo Pacific mackerel due to the overfishing and the deterioration of the environment. • **Lack of information and data** where is the important spawning area and life cycle history in the coastal areas of Cambodia.	• no data for catch by species
INDONESIA	• Available instrument on legal management and enforcement to commercially and sustainably manage the species is less in numbers. • Less available information to estimate the spawning season in several waters (only available on certain areas, mostly in Northern Java Sea, Malacca Strait and Sulawesi waters). • Less effort to monitor the species catch and extension in providing a simple and rapid assessment which lead to high catch on the species. • Less reliable management in arranging the catch season for the species in order to maintain their production cycle (life cycle, spawning season, etc) (summarized from several literatures and reports)	• Most of the literature and report from related fisheries agency had mentioned a **sharp decline** in Rastrelliger species catch but do not specifically mentioned the decline of the Brachysoma species in depth. • Based on Indonesia FMZ plan on small pelagic fish catch prediction, FMZ 571 is considered in an **over-exploited** category for small pelagic fish where the species is largely spawn. But it does not mention that the sharp decline is the species specifically. • Usual behavior in pulling in all Rastrelliger spp (kembung - local name) data, both for catch or market in one category of data (common species data collection).

		• Random catch and market arrangement for the species in most of coastal and waters areas (may need an integrated management and marketing effort for the species in areas with high catch on the species)
MALAYSIA	• Deforestation • Destruction gear and practices • Pollution from land	• Study methods of stock structure & migration pattern. • Necessary to develop a model or approach to determine the transboundary stocks of the GoT countries • Nonetheless, more data is still required to understand the stock structure of the transboundary species, especially for Indo-Pacific mackerel, *e.g*. environmental data, nutrients, micro-chemical parameters, etc. Such data would be useful to explain the occurrence of weight difference from the length-weight relationship between the stocks from the Andaman Sea and GoT. • More extension/awareness building program to key stakeholders (+ budget), From the 6GOT Report • Promote MPA/fishery *refugia* including zoning, stock/resource enhancement program and strengthen MCS • Improve the post – harvest fish handling (particular trawlers) • FAO/TCP fund for fish handling process improvement
	• **Difficulty in identifying their larvae to the genus or species level, specific spawning locations are unknown.** • Previous studies, however, point to such areas as Mindoro Strait and the waters off Manila Bay as likely spawning grounds for some pelagic fish in the South China Sea (Ronquillo 1975). Most pelagic species are planktivorous, although some are carnivorous particularly on the young of other species. As planktivores, they are known to live near the water surface and are therefore strongly influenced by environmental conditions (PCAMRD	• **Limited information regarding fish life-cycles** and critical habitat linkages and the role that coastal habitats play in sustaining fisheries

	1993). The high seasonal variation in their abundance is attributed to environmental influences such as monsoons, rainfall, salinity regimes, and plankton biomass. • **High level of fishing pressure and dependence on fisheries are threats to critical fisheries habitats.** • Key threats include: reclamation of nearshore areas for coastal infrastructure: sedimentation of coastal waters as a result of coastal development; wastewater effluent from highly populated coastal areas, industry, and shrimp and fish farming; and destructive fishing. Fisheries habitats in areas of Lingayen Gulf and Manila Bay are particularly threatened by high population densities and industrial development, whereas localized reclamation, coastal development and destructive fishing are more prevalent threats in areas of Palawan.	
THAILAND	• Decreasing trend of Indo Pacific Mackerel.	• Updated DNA analysis every month. • Fish larvae data and distribution covers the GoT and countries close to Thai water.
VIET NAM	• Don't have much data about Indo mackerel	• Relevant knowledge which includes water current, chlorophyll-a, and plank tonic and larvae stages were also discussed in order to understand the behavior of Indo-Pacific mackerels