



## PROMOTION OF THE REGIONAL PLAN OF ACTION ON SUSTAINABLE UTILIZATION OF NERITIC TUNAS IN THE ASEAN REGION

SEAFDEC Secretariat

### Executive Summary

#### I. BACKGROUND

- 1) Recognizing the importance of neritic tuna fisheries in the Southeast Asian waters, the regional or sub-regional cooperation to promote the sustainable utilization of neritic tunas is therefore addressed at the 45<sup>th</sup> Meeting of the Council in 2013, while the Council requested SEAFDEC to develop of the Regional Plan of Action for neritic tunas fisheries. In response to this, SEAFDEC with funding support from the SEAFDEC-Sweden Project together with ASEAN-SEAFDEC Member Countries drafting the RPOA-Neritic Tunas through a series of Expert meetings and Regional Technical Consultation since 2013. The draft RPOA-Neritic Tunas resulted from the consultative meetings was circulated to all SEAFDEC Member Countries for comments before it was addressed and endorsed as amended by the 17<sup>th</sup> Meeting of the FCG/ASSP in December 2014. The Final RPOA-Neritic Tunas was adopted at the 47<sup>th</sup> Meeting of the Council (47CM) in April 2015, and later endorsed by the 23<sup>rd</sup> Meeting of the ASEAN Sectoral Working Group on Fisheries in June 2015 with the notification by SOM-37<sup>th</sup> AMAF in the same year.
- 2) To facilitate implementation of the RPOA-Neritic tuna, the Scientific Working Group on Stock Assessment (SWG-Neritic Tunas) established in 2014 plays an important role to provide scientific evidence on the status of neritic tuna stock in the Southeast Asia. Up to date, Four meetings of the Scientific Working Group on stock assessment are conducted in Malaysia (2014 and 2017), Viet Nam (2015), and Thailand (2016). The meetings aimed to review the current stock status of neritic tunas, discussion for development of the Standard Operating Procedures (SOPs) for data and information collection, genetic study, capacity development through the training program, and required management measures.

#### II. PROGRESS ON THE STOCK AND RISK ASSESSMENT FOR KAW & LOT

- 3) The stock and risk assessment for Longtail tuna (*Thunnus tonggol*) and Kawakawa (*Euthynnus affinis*) resources were conducted in 2016 based on the assumption that there are two stocks of LOT and KAW in the Southeast Asian waters, *i.e.*, Pacific ocean (FAO fishing area 57) and Indian ocean stocks (FAO fishing area 71). Using the CPUE standardization, ASPIC and Kobe plots, the results of the stock and risk assessment of LOT and KAW are shown in the **Annex 1**. These results are addressed for consideration at the 49<sup>th</sup> Meeting of SEAFDEC Council in Brunei Darussalam in April 2014. Later the results are endorsed by the 25<sup>th</sup> Meeting of the ASEAN Sectoral Working Group of Fisheries (ASWGF<sub>i</sub>) held in Singapore in May 2017 for approval by the AMAF on the same year. The policy recommendations on Total Allowance Catch from the results of SA and Risk Assessment for KAW and LOT can be summarized as follows:

##### A. Indian Ocean Side of the Southeast Asian Region

- KAW: TAC should be less than the MSY level (55,380 t). This means that the current catch level (59,800 t) (Average of 2012-2014) should be decreased by 4,400 t (7%).

- LOT: TAC should be less than the MSY level (37,580 t), This means that the current catch level (43,000 t) (Average of 2012-2014) should be decreased by 5,400 t (13%).

#### B. Pacific Ocean Side of the Southeast Asian Region

- KAW: TAC should be less than the MSY level (185,400 t). This means that the current catch level (170,900 t) (Average of 2012-2014) can be increased by 14,100 t (9%).
- LOT: TAC can be increased to the MSY level (196,700 t). This means that the current catch level (88,200 t) (Average of 2011-2013) can be increased by 108,500 t (123%).

### III. MANAGEMENT MEASURES IN ANDAMAN SEA SUB-REGION

- 4) In general, the size of longtail tunas taken by the Indian Ocean fisheries typically ranges between 20 and 100 cm depending on the type of gear used, season and location. The fisheries operating in the Andaman Sea (coastal purse seines and trolling) tend to catch longtail tuna of small size (20–45cm) while the gillnet fisheries of Iran and Pakistan (Arabian Sea) catch larger specimens (50–100cm).
- 5) At the 3rd SWG-Neritic Tuna in 2016, the Scientific Working Group recommended the relevant SEAFDEC Member Countries to consider the management measures particularly for longtail tuna in the Andaman sub-region of the Southeast Asia that should be decreased by 5,400 t (13%) of the current catch level (43,000 t) starting from 2016 and onward. This recommendation was endorsed at the 23ASWGFi in 2017 and later supported by SOM-AMAF in the same year. The measures implied to relevant countries along the coastal State of the Andaman Sea sub-region namely Thailand, Myanmar, Indonesia and Malaysia.
- 6) Noting that Thailand that have controlled the effort for purse seine fisheries which are the main gears for harvesting small-pelagic fishes including the longtail tunas and kawakawa in both of Gulf of Thailand and the Andaman Sea since 2015 till present, while Myanmar is in the process in establishment of fish *refugia* as one of the national management plan to protect the spawning ground of neritic tuna in the transboundary areas between Thailand and Myanmar.
- 7) Since this RPOA-Neritic Tunas was developed based on the requirements of the SEAFDEC Member Countries, throughout the support from SEAFDEC-Sweden projects there are many activities have been done to improve and enhance the capacity on stock assessment of neritic tuna which are aimed to manage neritic tuna at the Sub-region and region in the Southeast Asia. In this, connection, the Donor have recognized the progress so far, and suggested to see more cooperation among the member countries in implementation of the measures based on scientific results from the activities.

### IV. CHALLENGES ON STOCK ASSESSMENT: LACK OF EFFORT TRENDS

- 8) In the process of Stock Assessment, it is important to note that not only historical catch data alone but the effort trend is very important for poor data stock assessment. Not only SEAFDEC facing this problem, but IOTC also. There are many questions asking SEAFDEC why the Stock Assessment of LOT and KAW in 2015 using the CPUEs mostly from Thailand, the answer can be shown in the Table 1 (IOTC, 2016).
- 9) From Table 1 shows highly incomplete, with data available for only short periods of time and selected fisheries. However, the main series available is belonged to Thailand consists of coastal purse seine and gillnet vessels (i.e., available over 10 years) which is required for stock assessment and be practiced in IOTC or any RFMOs.
- 10) **The question is that do we have to improve the data collection as country level to support the long term regional stock assessment?** The answer is **Yes**, because it will reflect the objectives of the adopted RPOA-Neritic tunas.
- 11) At the 3rd SWG, SEAFDEC have pointed out how important of the collection of CPUEs data and encourage all scientists to consider into the management plan at country level. SEAFDEC again intend to raise this matter at the Council level for considering support the improvement of data collection not only for neritic tuna and all commercial species.

- 12) In this connection, a solution is to support and enhance the capacity on collection of data and effort throughout the implementation of the electronic ASEAN Catch Documentation Schemes or similar system implementing by some AMSs e.g. Thailand's CDS.

Table 1: Longtail tuna: Availability of catch-and-effort series, by fishery and year (1970–2015). Note that no catch and-effort are available between 1950–1971.

Gear-Fleet	70	72	74	76	78	80	82	84	86	88	90	92	94	96	98	00	02	04	06	08	10	12	14	
PSS-Malaysia																								
<b>PSS-Thailand</b>																								
PS-EU-Spain																								
PS-Iran, IR																								
PS-Seychelles																								
PS-NEI																								
GILL-India																								
GILL-Indonesia																								
GILL-Iran, IR																								
GILL-Malaysia																								
GILL-Oman																								
GILL-Pakistan																								
<b>GILL-Thailand</b>																								
<b>LINE-Australia</b>																								
LINE-Indonesia																								
LINE-Malaysia																								
LINE-Oman																								
LINE-Yemen																								
OTHR-Australia																								
OTHR-Indonesia																								
OTHR-Malaysia																								
OTHR-Oman																								

## V. GENETIC STUDIES IN LONGTAIL TUNA

- 13) SEAFDEC/MFRDMD with the support from SEAFDEC-Sweden project conducted the population study of neritic tunas in Southeast Asia which aimed to identify the level of genetic diversity of *Thunnus tonggol* (longtail tuna, LOT) in the South China Sea and Andaman Sea, and to identify the genetic structure of LOT between both sub-regional areas by using mitochondrial DNA (mtDNA) displacement loop (D-loop) marker.
- 14) About 200 samples of LOT from four locations namely Kuala Perlis, Kuantan from Malaysia, Sihanouk Ville from Cambodia and Vung Tau from Viet Nam, had been analyzed by using mtDNA D-loop gene. The preliminary results the high value (0.998) of overall Haplotype diversity meaning that LOT has a high diversity in each sampling site. In addition, this preliminary result shows no significant genetic differentiation between 4 sampling sites. Furthermore, MFRDMD is working with other MCs namely Brunei Darussalam, Myanmar and Philippines before finalize the results of this study.
- 15) Genetic studies Alignment of the SEAFDEC works on genetic studies support the IOTC activities for neritic tuna in the IOTC areas of competence.

## VI. WAY FORWARD TO SUPPORT THE SWG FOR REGIONAL STOCK ASSESSMENT

- 16) Considering the RPOA-Neritic Tunas program are mainly supported by the SEAFDEC-Sweden project till 2018, and as agreed on the TOR for establishment of the SWG, Member Countries will bear the traveling cost for their scientist to participate to the annual SWG meeting. In addition, SEAFDEC secretariat in collaboration with MFRDMD will seek fund to maintain the secretariat of the SWG meeting.
- 17) In addition, taking into consideration SEAFDEC existing project related to the stock assessments such as Purse seine Project by MFRDMD, Off-shore Fisheries Project by TD, Conservation and management of Sharks and Rays project by MFRDMD/TD, SEAFDEC Sweden project on trans-boundary management for Anchovy, Indo-Pacific mackerel, and

Sardine, and etc. However, due to the limited resources persons or scientists at country levels, the existing experts/scientists on stock assessments need to work on different species. In this connection, SEAFDEC Secretariat proposes that the SWG for stock assessment to cover not only neritic tuna but should extend works to other important pelagic species, so that the existing stock assessment methodology can be applied for regional assessment. Besides, this is the way to integrate all project-related to stock assessment to be unique and avoid different approaches by individual project. Consequently, MFRDMD as its functions in collaboration with the Training Department can pool all scientists for stock assessment to support member Countries and develop the regional management measures for important small pelagic fishes or shared stock for consideration by ASEAN Member States.

## **VII. RESPONSES TO THE RECOMMENDATIONS BY THE 49<sup>TH</sup> CM**

- 18) Para 85. regarding the removal of longtail tunas from the Consumer Guide Red List as recommended by WWF of some countries, SEAFDEC was asked to develop a communication strategy and to work on behalf of the Member Countries with WWF to enhance the understanding of WWF and other organizations on the plans and scientific findings of SEAFDEC regarding neritic tunas.
- 19) Noting that after the LOT was listed in the Red list, the DOF/TH and Private-sector have worked with WWF/Thailand under the Fishery Improvement Project (FIP-Longtail tuna) since 2014. In connection to this, WWF/Thailand accepted the results from 2016-stock and risk assessment for LOT endorsed by the 23<sup>rd</sup> ASWGF in 2017. However, under the FIP-Longtail tuna, there are many criteria that the DOF/TH have to ensure and meet the requirement mentioned in the FIP.
- 20) In response to this, SEAFDEC continued communication with to DOF/TH and WWF/Thailand, the meeting was co-organized by DOF and WWF/Thailand in April 2017 on the status and progress of the FIP implementation by Thailand and way to step down from red list. As earlier mentioned, there are many criteria were set up in FIP and alignment with MSC criteria that DOF/TH have to implement.
- 21) It is expected that the issues on FIP-longtail tuna and removal of this species from the Red list will be continued discussion in 2018, depend upon the timetable of WWF/TH and DOF/TH.

## **REQUIRED CONSIDERATION BY THE COUNCIL**

The council is requested to take note the progress on implementations of the RPOA-Neritic Tunas in particular the results of 2016-stock and risk assessment of the LOT and KAW, management measures for LOT in the Andaman Sea sub-region, challenges on the stock assessment, genetic study, and Red list from WWF. The meeting is also invited to provide directive guidance to SEAFDEC on the following:

- Support the extending works of the existing Scientific Working Group on Stock Assessment (SWG) to support other shared stock species such as anchovy, sardines, indo-pacific mackerel and etc;
- Support a solution to enhance the capacity on collection of data and fishing effort throughout the implementation of the electronic ASEAN Catch Documentation or similar CDS;
- Securing the budget to support the operation of secretariat and administration works for the Scientific Working Group activities: