Regional Dialogue on Management of Highly Migratory Fish Species in the Bay of Bengal

23 November 2017; Kochi, India

Regional Plan of Action for Sustainable Utilization of Neritic Tunas in Southeast Asia

Southeast Asian Fisheries Development Center

Regional Plan of Action for Sustainable Utilization of Neritic Tunas in Southeast Asia

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OUTLINE

- SEAFDEC Background
- Activities of SEAFDEC to Support Sustainable Utilization of Neritic Tunas in Southeast Asia

SEAFDEC Background

Who is SEAFDEC?

- The Southeast Asian Fisheries Development Center (SEAFDEC) is an autonomous inter-governmental body established in 1967.

- SEAFDEC comprises 11 Member Countries: Brunei Darussalam, Cambodia, Indonesia, Japan, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Vietnam.

SEAFDEC Background

What SEAFDEC does?

Agreement-

Establishing the Southeast Asian Development Center (1967)

- Training of fisheries technicians (Training Department: Thailand)
- Research on fisheries techniques and investigation of fisheries resources and in other relevant field (Marine Fisheries Research and Development: Singapore)

SEAFDEC Background

What SEAFDEC does?

"to develop and manage the fisheries potential of the region by rational utilization of the resources for providing food security and safety to the people and alleviating poverty through transfer of new technologies, research and information dissemination activities".

(endorsed by the 41st Meeting of the SEAFDEC Council)

Reference

RESOLUTION ON SUSTAINABLE FISHERIES FOR FOOD SECURITY FOR THE ASEAN REGION TOWARDS 2020

http://www.seafdec.org/documents/ref02-4.pdf

SEAFDEC Background

What SEAFDEC does?

1. To offer training courses, and organize workshops and seminars in fishing technology, marine engineering, extension methodology, post harvested technology and aquaculture – Both Inland and Marine;
2. To undertake study on fisheries resources in this region;
3. To conduct the research on fishing technology and aquaculture;
4. To support improvement of the handing of fish onboard and quality control; and
5. To facilitate transfer of technology to the countries in the region and to provide information material including publication of statistic bulletin and reports for disseminate of survey, research and other data on fisheries and aquaculture)

SEAFDEC Background

SEAFDEC?

RFMO?

SEAFDEC Background

Is SEAFDEC RFMO?

	RFMO	SEAFDEC
Origin	UNCLOS 1982	Agreement on Establishing the Southeast Asian Development Center (1967)
Mandate	Manage fish stocks found in a specific area	Transfer of new technologies, research and information dissemination activities to develop and manage the fisheries.
Geographic Scale	High Sea	Southeast Asian Waters
Species based	High migratory species	Not define

SEAFDEC is a RFB = Regional Fisheries Body forum of mutual cooperation of the Member Governments.

International Concern
Highly Migratory Fish Species Management

UNCLOS 1982 -Related Article

PART V. Exclusive Economic Zone

1. Article 61. Conservation of the living resources
2. Article 62. Utilization of the living resources
3. Article 63. **Stocks occurring within the exclusive economic zones of two or more coastal States or both within the exclusive economic zone and in an area beyond and adjacent to it**
4. Article 64**. Highly migratory species**

PARTT VII. High Sea

1. Article 116. Right to fish on the high seas
2. Article 117. Duty of States to adopt with respect to their nationals measures for the conservation of the living resources of the high seas
3. Article 118. Cooperation of States in the conservation and management of living resources
4. Article 119. Conservation of the living resources of the high seas

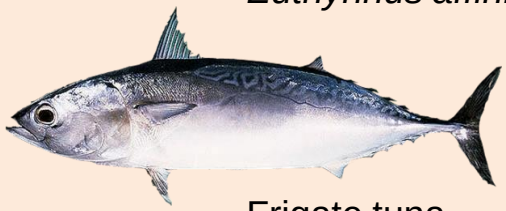
SEAFDEC Initiative
to support Sustainable Utilization of Neritic Tunas in Southeast Asia

NERITIC TUNA IN REGION

- Neritic tuna study was initiated under ASEAN-SEAFDEC program,2008-2012 in 5 major countries: Indonesia, Philippines, Thailand, Vietnam, and Malaysia
- Focusing exploitation of neritic tuna within EEZ waters
- Overall tuna exploitation in the Southeast Asian waters was increased from 870,000 Ton in 2001 to 1.5 Million Ton in 2006.

Bullet tuna
Auxis rochei

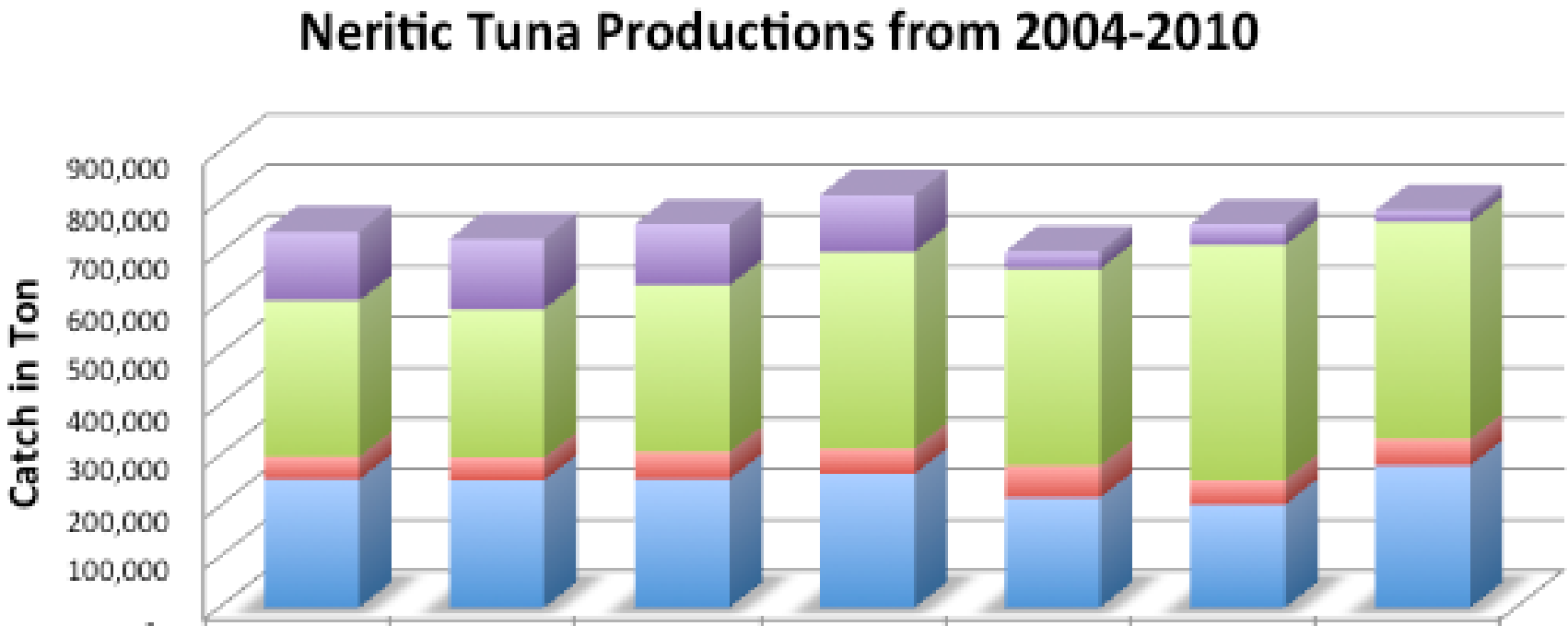
Eastern little tuna
Euthynnus affinis



Frigate tuna
Auxis thazard

Longtail tuna
Thunnus tonggol

TRENDS OF NERITIC TUNAS PRODUCTIONS

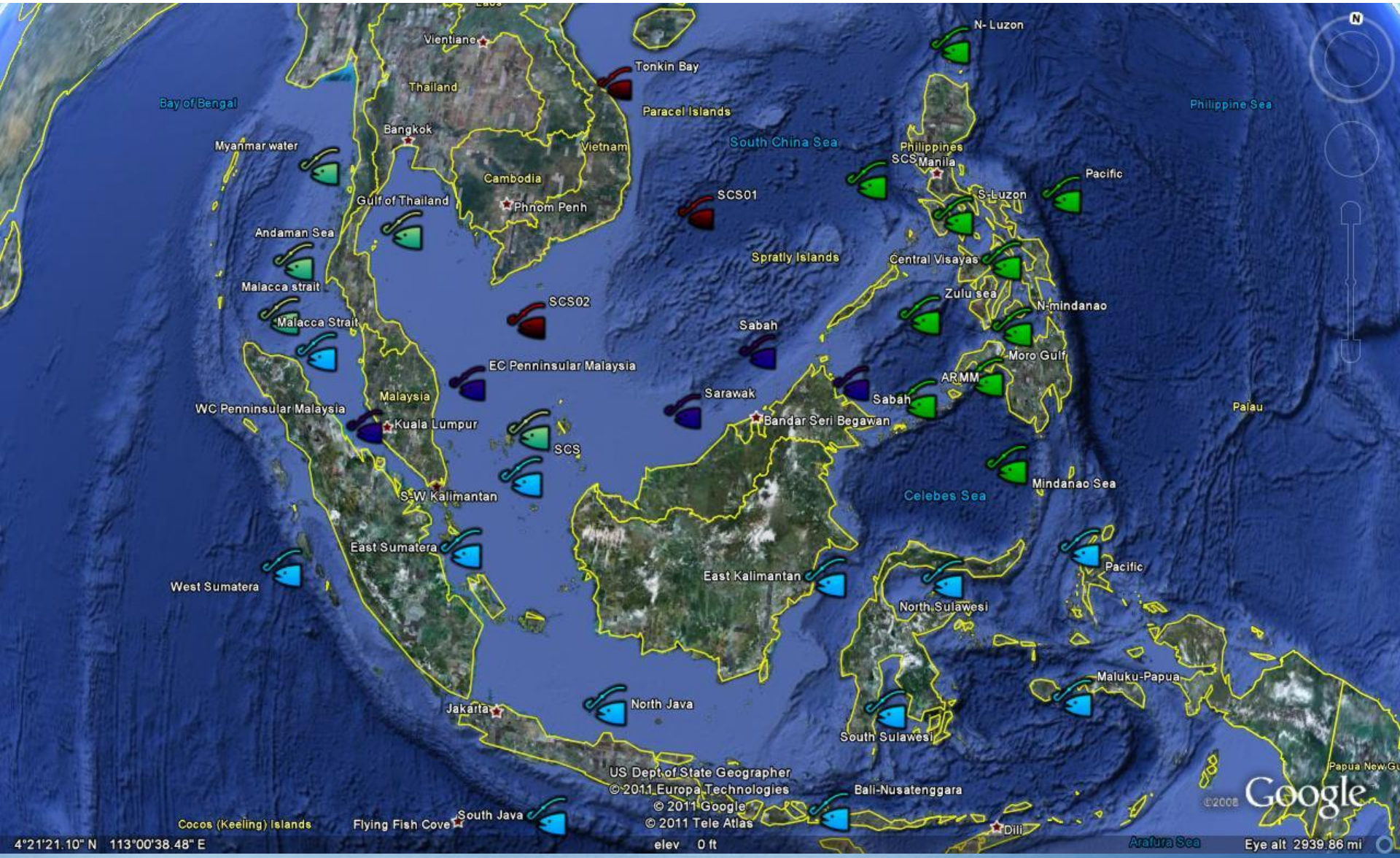


	2004	2005	2006	2007	2008	2009	2010
Thailand	136,227	138,917	120,000	112,000	35,000	40,133	23,896
Indonesia	308,475	293,461	329,115	388,364	388,364	464,016	427,240
Malaysia	44,694	44,864	53,871	50,347	63,455	48,530	52,822
Philippines	252,829	251,334	253,353	264,251	216,568	203,607	280,734

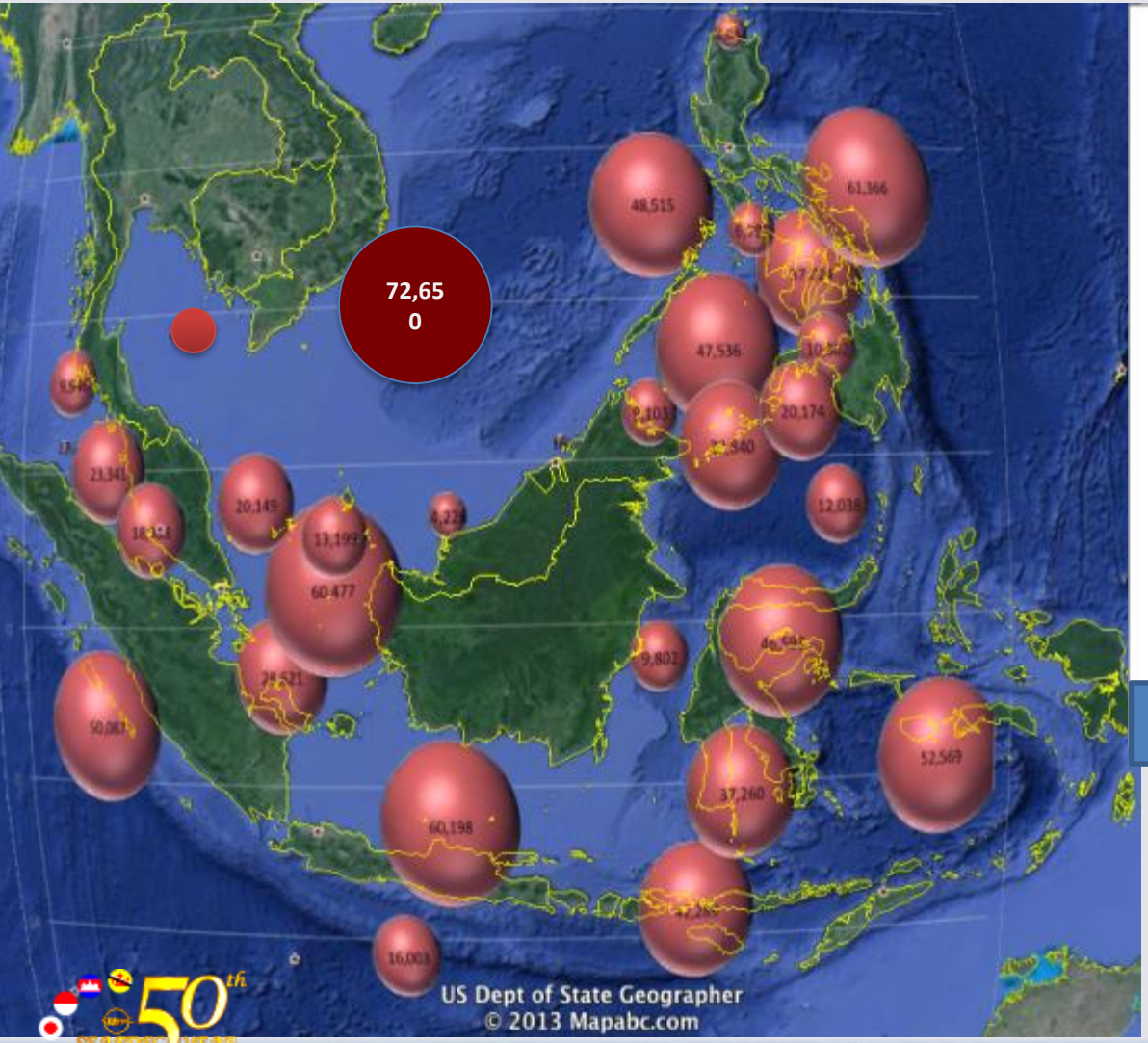
Data not included Vietnam, Myanmar, Cambodia and Brunei Darussalam

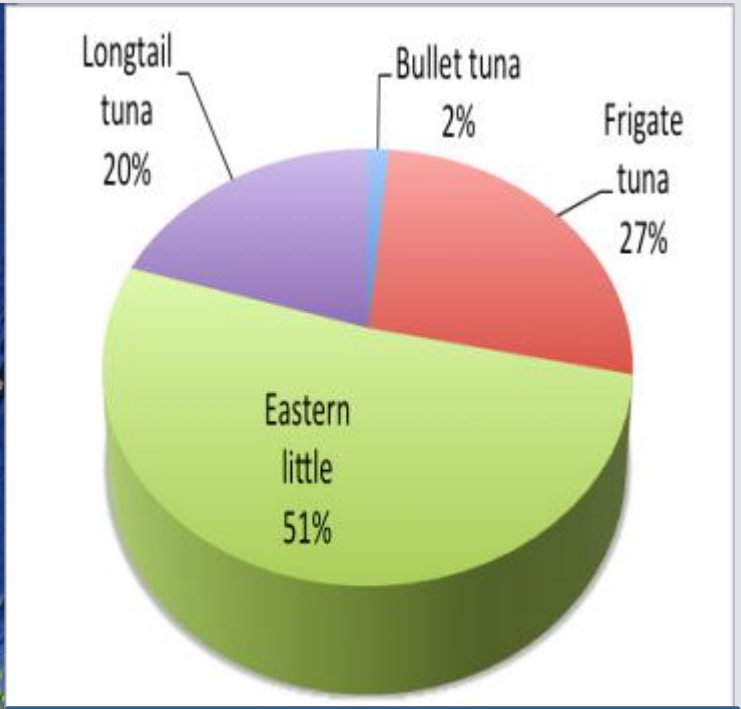
Identify Fishing Areas & others

- National Focal Points Meeting, Data collection/landing sites, Justify catch from FG



PRODUCTION OF NERITIC TUNAS (2010)





Species Composition (2010)

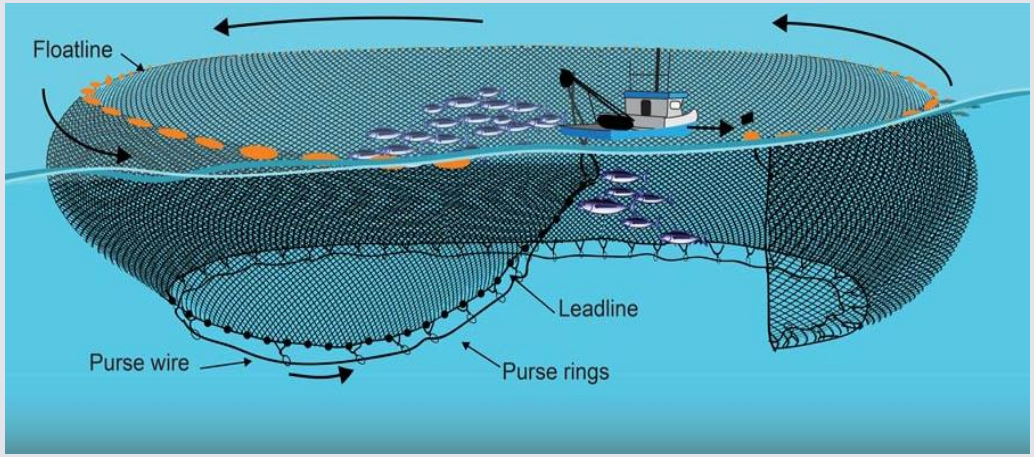

Bullet tuna


Frigate tuna

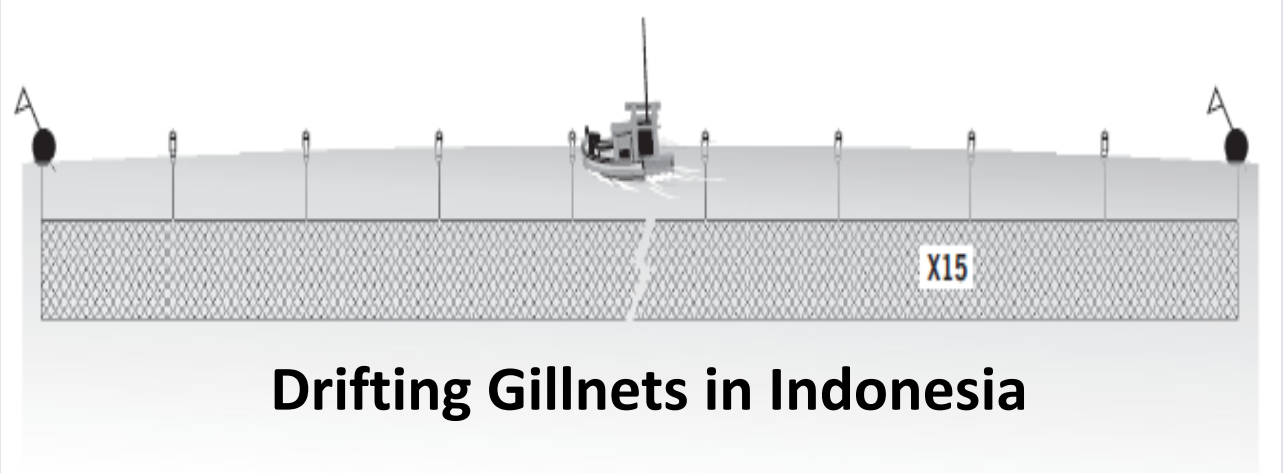

Eastern little tuna


Longtail tuna

Major Fishing gears



- **Purse seines**
- **Ring nets in Philippines**



Drifting Gillnets in Indonesia

DIRECTIVES FROM SEAFDEC COUNCIL & PROGRESS ON DEVELOPING THE RPOA

- ✧ At 45th Meeting of SEAFDEC Council (2013), recognized the need to develop a PoA for Regional Cooperation;
- ✧ In response, a series of Meeting on RPOA-Neritic tuna was held in Oct'2013, and June'2014;
- ✧ RPOA-Neritic Tunas is supported by
  - ✓ 47 CM in April 2015;
  - ✓ 17 ASWGFi in June 2015;
  - ✓ In the process for SOM-AMAF's support

DEVELOPMENT OF RPOA-NERITIC TUNAS

Prioritized issues to be considered for Developing the RPOA-neritic tuna

At National Level

- ✓ Open access, management of fishing capacity
- ✓ Undetermined resources, status and trend
- ✓ Data collection systems should be improved
- ✓ IUU Fishing
- ✓ Transshipment of catch
- ✓ Double flagging, poaching
- ✓ Post-harvest losses
- ✓ Appropriate technology of fishing gears & devices
- ✓ Infrastructure of fishing port/landing sites
- ✓ Unfair benefits allocation, working conditions and labor issues should be settled
- ✓ Supporting policy from Government should be assured
- ✓ Need Capacity building

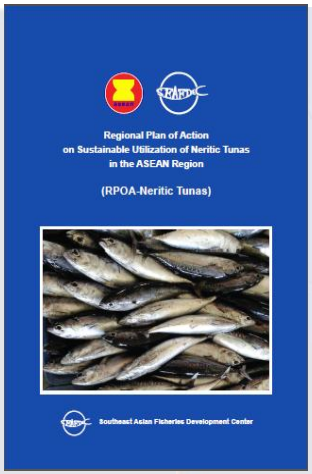
At Regional Level

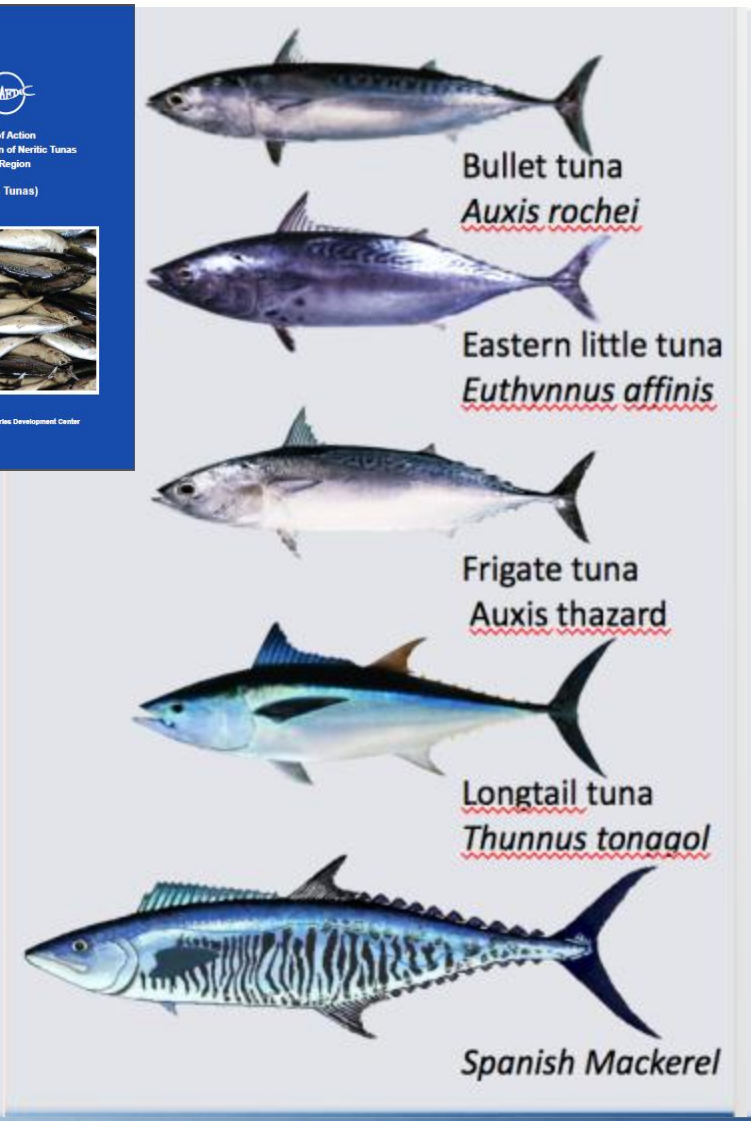
- ✓ Need Sub-regional fisheries management for neritic tuna
- ✓ Establishment of working groups for long term status and trends Assessments
- ✓ Enhance the intra-regional trade through harmonized standard catch documenta-tion systems
- ✓ Data & information sharing
- ✓ Seek cooperation with other sub-regional, regional, international organizations

REGIONAL PLAN OF ACTION FOR NERITIC TUNAS

6 Main Objectives

1. Determining available data and information, improving data collection and developing key indicators
2. Improving sustainable fisheries management
3. Improving sustainable interaction between fisheries and marine ecosystem
4. Improving compliance to rules and regulations and access to markets
5. Social Issues
6. Regional Cooperation





6 OBJECTIVES: of RPOA-Neritic Tunas (1)

Objective I: Determining available data, improving data collection and developing key indicators

- ✓ Improve data collection and analysis, and
- ✓ Assess neritic tuna stock and develop resources key indicator.

Objective II: Improving sustainable fisheries management

- ✓ Promote management of fishing capacity
- ✓ Promote sustainable utilization of neritic tuna resources
- ✓ Enhance understanding of management and conservation measures, and
- ✓ Mitigate the impacts of climate change on neritic tuna stock

6 OBJECTIVES: of RPOA-Neritic Tunas (2)

Objective III: Improving sustainable interaction between fisheries and marine ecosystem

- ✓ Reduce Negative Impacts of Neritic Tuna Fisheries to Marine Ecosystem

Objective IV: Improving compliance to rules and regulations and access to markets

- ✓ Combating IUU fishing that occurring in the region
- ✓ Improve infra-structures in fishing port/landing sites
- ✓ Improve post-harvest techniques and product quality
- ✓ Enhance intra-regional and international trade

6 OBJECTIVES: of RPOA-Neritic Tunas (3)

Objective V: Addressing Social Issues

- ✓ Improve the benefits for People involved in neritic tuna fisheries and industries
- ✓ Improve working conditions and labor issues

Objective VI: Enhancing Regional Cooperation

- ✓ Enhance/ develop sub-regional action plans for neritic tuna fisheries
- ✓ Assessment of the status and trends at sub-regional level, and
- ✓ Enhancing intra-regional and international trade

SUPPORT Implementation of RPOA-Neritic Tunas

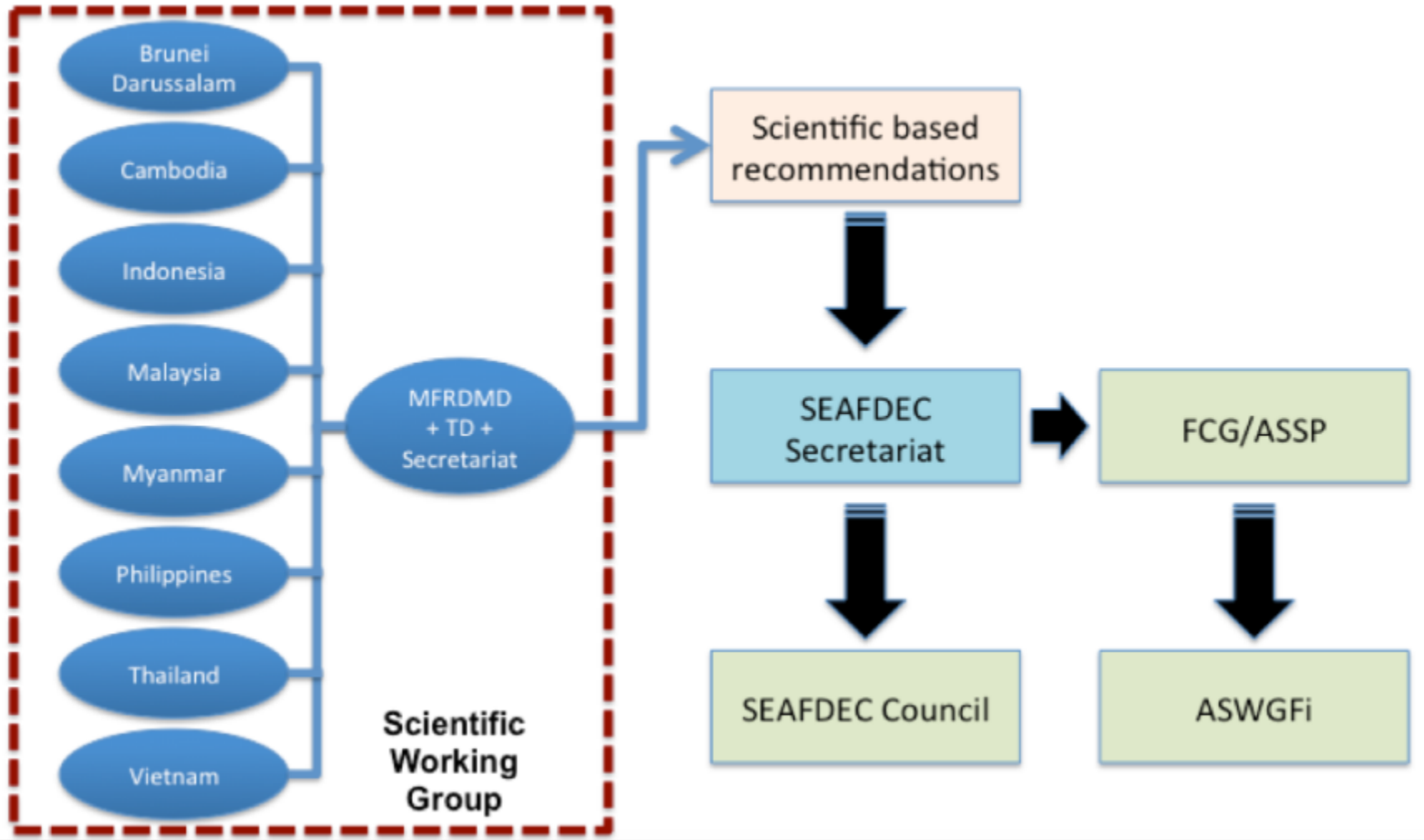
- ✓ Scientific Working Group (SWG) for Stock Assessment & its TORs were established and endorsed by 47CM;
- ✓ Two SWG were organized in Malaysia (2014), Vietnam (2015), Thailand (2016), Malaysia (2017);
  - ❖ Reviews the status and trend of Neritic tunas
  - ❖ Developed the SOP for data collection, genetic study, stock assessment, etc.
  - ❖ Developed Work plan for:
    - ❖ Stock Assessment of Neritic Tunas
      - ❖ LOT and KAW in 2016
      - ❖ Seer fishes (Spanish Mackerel) in 2017
    - ❖ Genetic Study for LOT and KAW in 2016-8

Capacity Building to AMSs

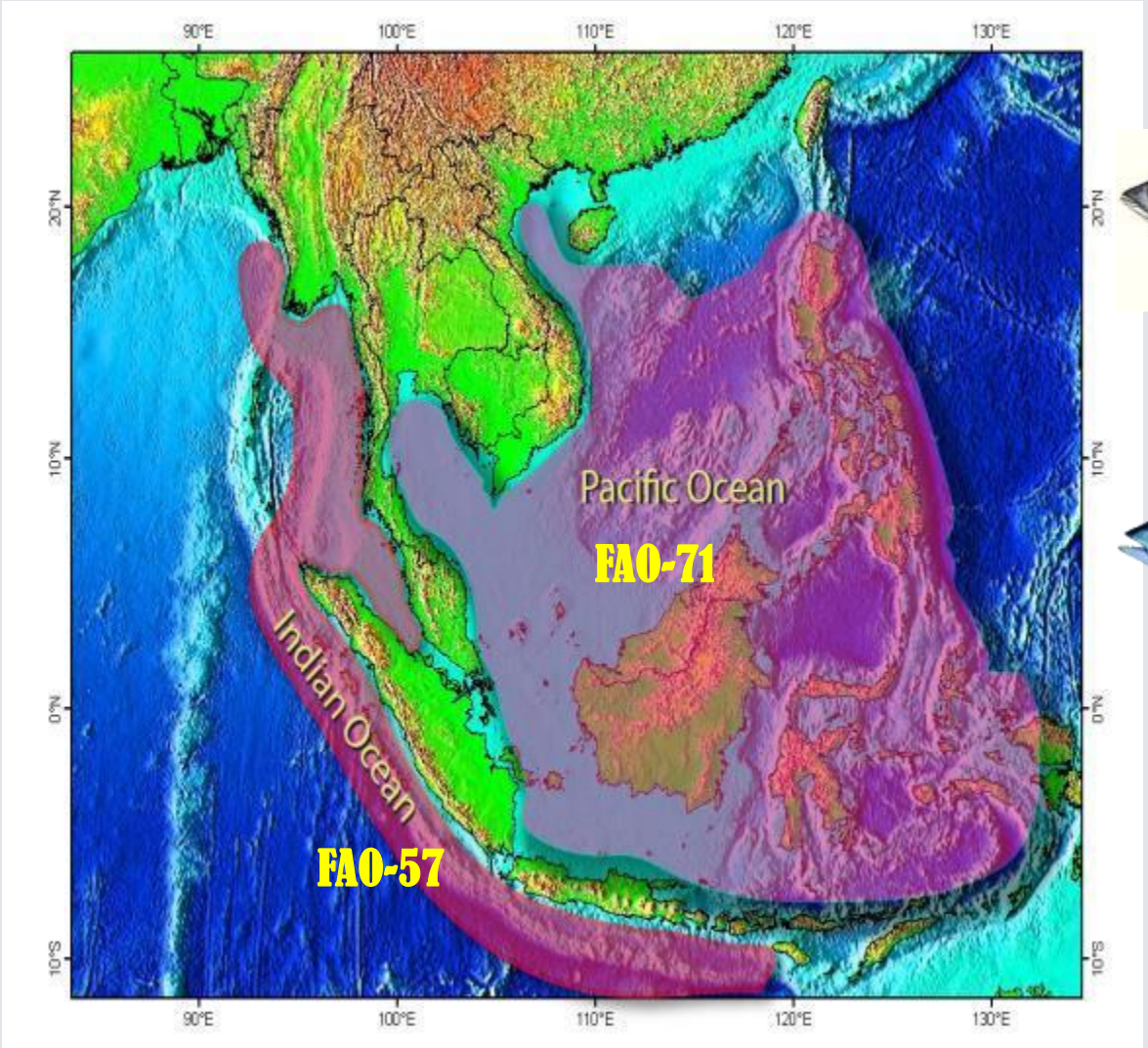
- ✓ **Basic knowledge on Stock Assessment** and landing data collection to Selected AMS such as CAM, MM, TH, etc. (2016);
- ✓ **Stock Assessment Advance Training Course** for Specific Species using model used by RFMOs (selected AMSs such as MY, PH, ID, TH and VN) from 2016-17;
- ✓ **Improvement of landing data collection system** under the national framework and cost shared basis from 2016-18;



Adopted Mechanism to Convey the Technical/ Scientific Recommendations to ASEAN

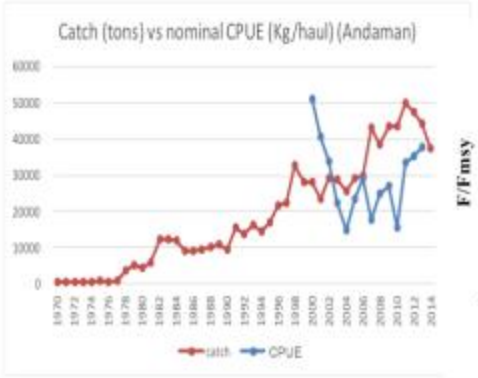


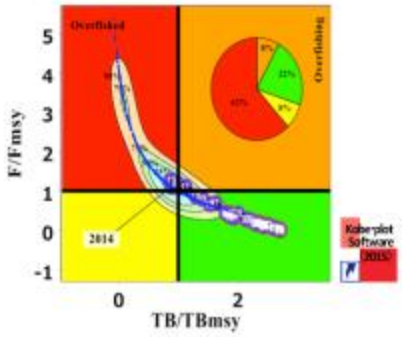
2 Geographic Areas of Southeast Asia



STOCK & RISK ASSESSMENT
Longtail Tuna

LONGTAIL TUNA (INDIAN OCEAN STOCK) Red zone (2014)
(TB/TBmsy=0.89 and F/Fmsy=1.11)



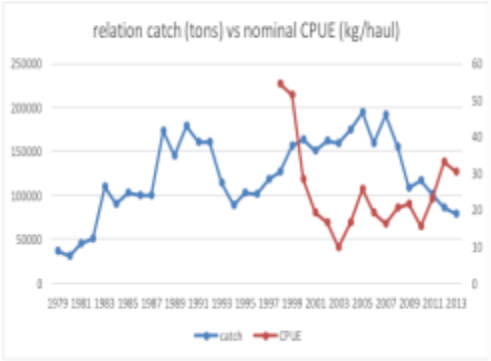


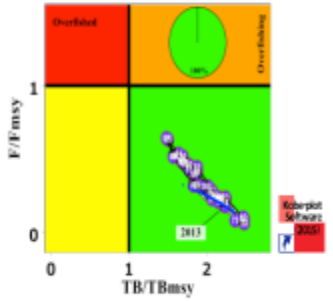
Color legend				
Risk levels	Low risk	Medium low risk	Medium high risk	High risk
Probably	0-20%	20-50%	50-80%	80-100

Catch level	60%	70%	80%	87%	90%	100%	110%	120%	130%	140%
				MSY level		Current catch (*)				
10 catch scenarios (tons)	25,807	30,108	34,409	37,580	710	43,011	47,312	51,613	55,914	60,215
$B_{2017} < B_{MSY}$	48	51	55	57	58	61	64	68	71	74
$F_{2017} > F_{MSY}$	35	41	49	56	59	71	79	87	92	96
$B_{2024} < B_{MSY}$	31	36	45	54	57	71	80	87	90	94
$F_{2024} > F_{MSY}$	31	35	42	53	57	75	87	92	96	98

(*) The current catch level is the average catch in 3 recent years (2012-2014)

LONGTAIL (PACIFIC OCEAN STOCK) Green zone (2013)
(TB/TBmsy=2.22 and F/Fmsy=0.18)





Reference point and projection timeframe	Alternative catch projections (relative to the average catch level from 2011–13) and probability (%) of violating MSY-based target reference points ($B_{targ} = B_{MSY}$; $F_{targ} = F_{MSY}$)					
	Current catch (*)	MSY				
Catch level Increased by	0%	50%	100%	123%	150%	200%
Projected catch (tons)	88,157	132,236	176,314	196,700	220,392	264,471
$B_{2016} < B_{MSY}$	0	0	0	0	0	0
$F_{2016} > F_{MSY}$	0	0	0	0	0	78
$B_{2023} < B_{MSY}$	0	0	24	52	84	100
$F_{2023} > F_{MSY}$	0	0	19	53	88	100

Proposed Policy/Management Recommendations on Longtail Tuna:

Indian Ocean Side of the Southeast Asian Region (FAO Area:57)

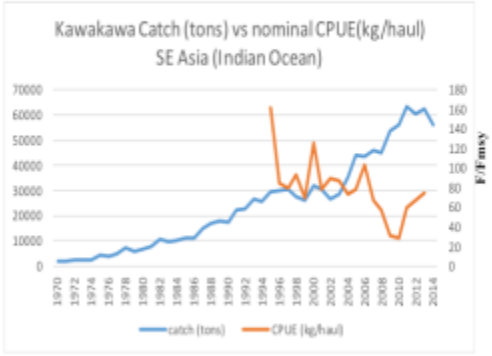
- Longtail Tuna: TAC should be less than the MSY level (37,580 t), This means that the current catch level (43,000 t) **should be decreased by 5,400 t (13%)**.

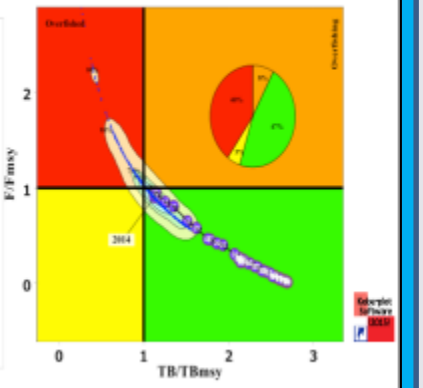
Pacific Ocean Side of the Southeast Asian Region (FAO Area:71)

- Longtail Tuna: TAC can be increased to the MSY level (196,700 t). This means that the current catch level (88,200 t) **can be increased by 108,500 t (123%)***.

STOCK & RISK ASSESSMENT
Eastern-little Tuna (Kawakawa)

KAWAKAWA (INDIAN OCEAN STOCK) Green zone (2014)
(TB/TBmsy=1.28 and F/Fmsy=0.75)



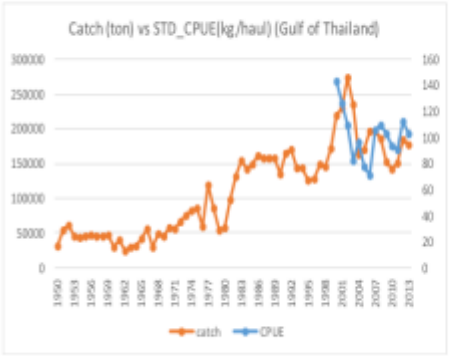


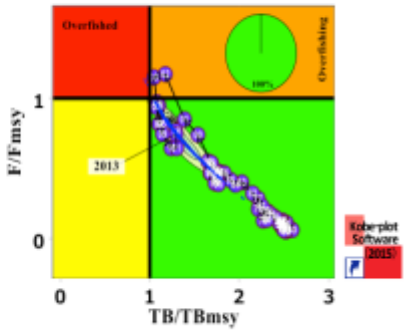
Color legend				
Risk levels	Low risk	Medium low risk	Medium high risk	High risk
Probably	0-20%	20-50%	50-80%	80-100

Catch level	60%	70%	80%	90%	93%	100%	110%	120%	130%	140%
					MSY level	Current catch (*)				
10 catch scenarios (tons)	35,854	41,829	47,805	53,780	55,380	59,756	65,732	71,707	77,683	83,658
$B_{2017} < B_{MSY}$	20	24	30	39	41	46	57	64	73	80
$F_{2017} > F_{MSY}$	9	14	20	36	42	59	80	95	100	100
$B_{2024} < B_{MSY}$	7	10	17	36	44	67	87	99	100	100
$F_{2024} > F_{MSY}$	7	9	16	35	45	71	95	100	100	100

(*) The current catch level is the average catch in 3 recent years (2012-2014).

KAWAKAWA (PACIFIC OCEAN STOCK) Green zone (2013)
(TB/TBmsy=1.29 and F/Fmsy=0.74)





Color legend				
Risk levels	Low risk	Medium low risk	Medium high risk	High risk
Probably	0-20%	20-50%	50-80%	80-100

Catch level	60%	70%	80%	90%	100%	109%	110%	120%	130%	140%
10 catch scenarios (tons)					Current catch (*)	MSY level				
Projected catch (tons)	102,571	119,666	136,762	153,857	170,952	185,400	188,047	205,142	222,238	239,333
$B_{2016} < B_{MSY}$	5	12	17	26	32	39	40	50	58	65
$F_{2016} > F_{MSY}$	0	0	0	0	16	41	46	73	90	96
$B_{2023} < B_{MSY}$	0	0	0	1	18	56	63	88	96	99
$F_{2023} > F_{MSY}$	0	0	0	0	3	56	66	93	99	100

(*) The current catch level is the average catch in 3 recent years (2011-2013)

Proposed Policy/Management Recommendations on Kawakawa:

Indian Ocean Side of the Southeast Asian Region (FAO Area:57)

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

Pacific Ocean Side of the Southeast Asian Region (FAO Area:71)

- Kawakawa: TAC should be less than the MSY level (185,400 t). This means that the current catch level (170,900 t) **can be increased by 14,100 t (9%).**

COLLABORATION WITH RFMOS & NGOs, PRIVATE SECTORS

① **WCPFC**

- Supporting SWG members from TH and MAL to attend the Sustainable Management of Highly Migratory Fish Stocks in the West Pacific and East Asian Seas;

② **IOTC**

- Support the Working Party on Neritic Tunas;

③ **ASEAN Tuna Task Force & ASEAN TWG**

- Sharing the SEAFDEC results to the ASEAN Meetings

④ **Other Organizations and NGOs** (*e.g.* SFP, WWF)

⑤ **Private Sectors**: Thai Union, Abba Seafood, etc.

WAY FORWARD

- **Develop the management measures** to Control of Fishing Effort and Capacity at national level and sub-regional levels.
- **Implementation** of **ASEAN Catch Documentation System** for neritic tuna fisheries;
- **Development of joint trade promotions** within and outside the region through the ASEAN Tuna Working Group;
- **Exchanging of information among AMSs** on legal framework, policies & management, trade rules & regulations;
- **Development of measures to refrain** the conduct of business transaction with owners and vessels presumed to have carried out IUU fishing activities;
- **Creation of platforms/fora to facilitate cooperation** among scientists and managers;

SEAFDEC: RFB to Support Management

SEAFDEC?

RFMO?

THANK YOU

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