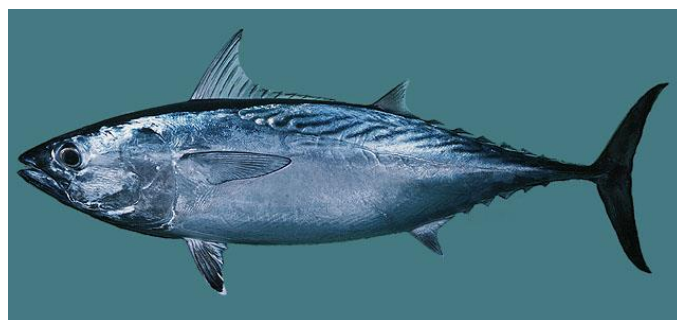


# FISHERY BY-PRODUCT REPORT

## IFFO GLOBAL STANDARD FOR RESPONSIBLE SUPPLY OF FISHMEAL AND FISH OIL



R1

<b>FISHERY By-Product:</b>	<b>Kawakawa (<i>Euthynnus affinis</i>)</b>
<b>LOCATION:</b>	<b>FAO Fishing areas 57 and 71 (Eastern Indian Ocean and Western Central Pacific Ocean)</b>
<b>DATE OF REPORT:</b>	<b>January 2017</b>
<b>ASSESSOR:</b>	<b>Deirdre Hoare</b>

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1. APPLICATION DETAILS AND SUMMARY OF THE ASSESSMENT OUTCOME		
Name:		
Address:		
Country: Thailand	Zip:	
Tel. No.	Fax. No.	
Email address:	Applicant Code	
Key Contact:	Title:	
Certification Body Details		
Name of Certification Body:	SAI Global (Ireland)	
Assessor Name	Peer Reviewer	Initial/Surveillance/ Re-certification
Deirdre Hoare	Sam Dignan	Initial
1. Scope of Assessment		
		By-Product Initial year 2016
2. Fishery By-Product		
		Kawakawa ( <i>Euthynnus affinis</i> )
3. Fishery By-Product Location		
		FAO Fishing areas 57 and 71 (Eastern Indian Ocean and Western Central Pacific Ocean)
4. Fishery Method		
		Purse seine
5. Outcome of Assessment		
		Approve byproduct

2. GUIDANCE FOR ONSITE ASSESSMENT
3. ASSESSMENT DETERMINATION
<p>Legal and administrative frameworks exist at the national level, in addition to the research and management frameworks implemented at the international level by tuna RFMOs. Due in part to the presence of international RFMOs focused on the management of tuna in general and Bullet Tunas specifically, the assessment team recommends approving the byproduct with a medium compliance rating.</p>

**4. RATIONALE OF THE ASSESSMENT OUTCOME**

**A. THE MANAGEMENT FRAMEWORK AND PROCEDURE**

**LEVEL OF COMPLIANCE**

*The management of the fishery used to produce the By- Product must include a legal and administrative basis for the implementation of measures and controls to support the management of the fishery.*

<b>LOW</b>	An administrative framework that ensures an efficient management of the fishery is not established.
<b>MEDIUM</b>	An administrative framework that ensures an efficient management of the fishery is somehow established, but there is evidence of not being efficient to ensure the management of the stock.
<b>HIGH</b>	A legal and administrative framework that ensures an efficient management of the fishery is established and works efficiently.

***Determination: An administrative framework that ensures an efficient management of the fishery is somehow established, but there is evidence of not being efficient to ensure the management of the stock.***

**National**

The Fisheries Act (1947, as amended in 1953 and 1985) is the principal legislative instrument dealing with fisheries and the cultivation of aquatic animals in the country. The act is administered by the Ministry of Agriculture and Cooperatives (MAC). Its Department of Fisheries (DOF) is the principal government agency responsible for managing and developing fisheries and aquaculture. Its mandate and structure are set out in the Royal Decree on Administration (1994), which provides DOF with the authority and responsibility to:

- Apply, implement and enforce the Fisheries Act and other relevant laws related to fishery matters.
- Study, research and develop aquatic resources, the aquatic environment, aquaculture, fish enhancement including genetic research and fishing gear.
- Study, research and develop preservation and food processing of aquatic products, including analysis, inspection and certification of the quality of aquatic products.
- Survey, explore, analyze and research fishery grounds within and outside Thai waters.
- Promote and develop the possibilities for people to get involved in fishing, aquaculture and fishery products processing.

Therefore, the Thailand Department of Fisheries (DOF) is the primary fishery management organisation in Thailand. The current Thai fisheries management objectives are set out in The Master Plan – Marine Fisheries Management in Thailand. The Master Plan applies for the ten years beginning in 2009. The Plan includes five major strategies, the third of which is “Development and Promotion of Responsible and Sustainable Fisheries”.

**International**

As widely distributed and highly migratory species, the management of most tunas is necessarily internationally-focussed. Many tuna stocks are managed by Regional Fisheries Management Organisations (RFMOs) which coordinate the scientific output and management approach of their member states with regards to tuna. Thailand is a member of the Indian Ocean Tuna Commission (IOTC) and a co-operating non-member of the Western and Central Pacific Fisheries Commission (WCPFC). Both these RFMOs include bullet tuna within their remit.

**Species-Specific**

The IOTC has implemented a number of conservation and management measures specific to bullet tuna;

- Resolution 15/01 on the recording of catch and effort by fishing vessels in the IOTC area of competence
- Resolution 14/05 concerning a record of licensed foreign vessels fishing for IOTC species in the IOTC area of competence and access agreement information
- Resolution 15/11 on the implementation of a limitation of fishing capacity of Contracting Parties and Cooperating Non-Contracting Parties
- Resolution 15/02 mandatory statistical reporting requirements for IOTC Contracting Parties and Cooperating non-Contracting Parties (CPCs)
- Resolution 10/08 concerning a record of active vessels fishing for tunas and swordfish in the IOTC area

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However, improvement in data collection and reporting is required to assess the stock using more traditional stock assessment techniques. Given the rapid increase in kawakawa catch in recent years, some measures need to be taken to reduce the catches in the Indian Ocean.

R2 – R7

**B. STOCK ASSESSMENT PROCEDURES AND MANAGEMENT ADVICE**

**LEVEL OF COMPLIANCE**

*B. Research in support of fisheries management should exist.*

<b>LOW</b>	Research to support the management of the stock does not exist
<b>MEDIUM</b>	Research to support the management of the stock exists, however research programmes could be significantly improved to decrease scientific advice uncertainty.
<b>HIGH</b>	Research to support the management of the stock exists, and research programmes for provision of scientific advice are considered adequate.

**Determination: Research to support the management of the stock exists, however research programmes could be significantly improved to decrease scientific advice uncertainty. Research to support the management of the stock is coordinated by the tuna RFMOs, but there is insufficient detail to take into account all the uncertainties in the stock assessment**

**National**

Research supporting the management of Thai fisheries is the responsibility of two main organisations. The Marine Fisheries Research and Development Bureau (MFRDB) within the DOF is responsible for marine fisheries research. The Department of Marine and Coastal Resources (DMCR) is mandated to study and enhance mangrove forests, sea grass, coral reefs, and marine animals. The DMCR is responsible for the rehabilitation of natural resources and the environment and has elaborated main strategies with an emphasis on the role of public participation in preservation, protection, conservation, utilization and rehabilitation of natural resources through proactive and integrated natural resources management.

**International**

Management of kawakawa by the IOTC and WCPFC is supported by concerted data collection and stock assessment efforts. Although the stock status is classified as not overfished and not subject to overfishing, the model developed in 2015 showed that there is a 96% probability that biomass is below MSY levels and 100% probability that  $F > F_{MSY}$  by 2016 and 2023 if catches are maintained at the 2013 levels. The Maximum Sustainable Yield estimate for the whole Indian Ocean is estimated to be between 125,000 and 188,000 t and so catch levels should be stabilised or reduced in future to prevent the stocks becoming overfished.

**TABLE 1.** Kawakawa: Status of kawakawa (*Euthynnus affinis*) in the Indian Ocean.

Area <sup>1</sup>	Indicators		2016 stock status determination
Indian Ocean	Catch 2015 <sup>2</sup> :	152,772 t	
	Average catch 2011–2015:	158,817 t	
	MSY (1,000 t) [*]	152 [125–188]	
	$F_{MSY}$ [*]	0.56 [0.42–0.69]	
	$B_{MSY}$ (1,000 t) [*]	202 [151–315]	
	$F_{2013}/F_{MSY}$ [*]	0.98 [0.85–1.11]	
	$B_{2013}/B_{MSY}$ [*]	1.15 [0.97–1.38]	
$B_{2013}/B_0$ [*]	0.58 [0.33–0.86]		

R3,6

C. STOCK STATUS	
LEVEL OF COMPLIANCE	
C. The fish used to produce the fish By- Product is not considered to be critically at risk of over exploitation in accordance with the IUCN guidance.	
<b>LOW</b>	The fish By-Product must not come from a species that is listed as extinct, or critically endangered.
<b>MEDIUM</b>	The fish By- Product is from a species that is classified as vulnerable, but has a management regime in place that will control the level of fishing permitted. Or if a species is deemed to be endangered but the sub-group from where the fish By- Product is harvested is deemed scientifically to be at no risk of over exploitation.
<b>HIGH</b>	The fish By- Product comes from a fishery that is not deemed to be at risk of over exploitation from fishing activities.
<p><b>Determination: The byproduct comes from a species which is considered to be of least concern.</b></p> <p>This species is widespread and abundant in the Indian and Western Pacific Ocean. It is caught in commercial fisheries, primarily as bycatch. It is marketed in a variety of products, and reported worldwide landings are increasing. Currently, there is no information on population trends. It is listed as Least Concern. More information is needed on this species population and the impact of fisheries, especially as it seems that many catches are not being reported.</p> <p>R8</p>	

**5. REFERENCES**

- R1 – Image of *Euthynnus affinis* by J.E., Randall  
<http://fishbase.org/photos/PicturesSummary.php?StartRow=1&ID=96&what=species&TotRec=6>
- R2 – FAO country fisheries overview, Thailand: [ftp://ftp.fao.org/Fi/DOCUMENT/fcp/en/FI\\_CP\\_TH.pdf](ftp://ftp.fao.org/Fi/DOCUMENT/fcp/en/FI_CP_TH.pdf)
- R3 – Thailand Department of Fisheries master plan:  
<http://www.fisheries.go.th/planning/files/Marine%20Master%20Plan.pdf>
- R4 – Western and Central Pacific Fisheries Commission: <http://www.wcpfc.int/>
- R5 – Indian Ocean Tuna Commission: <http://www.iotc.org/about-iotc/structure-commission>
- R6 – IOTC tuna stock status summary, 2016: <http://iotc.org/science/status-summary-species-tuna-and-tuna-species-under-iotc-mandate-well-other-species-impacted-iotc>
- R7 – IOTC Executive Summary: kawakawa  
[http://www.iotc.org/sites/default/files/documents/science/species\\_summaries/english/Kawakawa%20Executive%20Summary.pdf](http://www.iotc.org/sites/default/files/documents/science/species_summaries/english/Kawakawa%20Executive%20Summary.pdf)
- R8 – IUCN Redlist <http://www.iucnredlist.org/details/full/170336/0>