Thai Union

Overview Analysis Report of Sustainable Fisheries Partnership's ETP Bycatch Audit



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April 2023



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Acronyms

Description
Electronic Monitoring
Endangered, Threatened, and Protected
Fishery Improvement Project
Inter American Tropical Tuna Commission
International Commission for the Conservation of Atlantic Tunas
Indian Ocean Tuna Commission
International Seafood Sustainability Foundation
International Union for the Conservation of Nature
Key Traceability
Marine Stewardship Council
Non-Governmental Organisation
Ocean Disclosure Project
Ping Tai Rong Ocean Fishery Group Co., Ltd.
Regional Fisheries Management Organisation
Sustainable Fisheries Partnership
Sustainable Indian Ocean Tuna Initiative
The Nature Conservancy
Thai Union Group
United Nations Food and Agricultural Organisation
Western and Central Pacific Fisheries Commission
World Wildlife Fund



1 Introduction

1.1 Organisations involved

Key Traceability Ltd. (KT) is a consultancy company with a mission to unlock seafood supply chains by working closely and confidentially with a range of international clients to bring transparency to consumers. KT has worked with Thai Union on a range of different seafood projects, including fishery improvement projects (FIPs) and other short-term projects to improve the sustainability of the fisheries from which Thai Union source. The KT team has prepared this report at the request of Thai Union to contribute to their partnership work program with the Sustainable Fisheries Partnership (SFP).



<u>Thai Union Group PCL</u> (TU) is one of the world's leading seafood producers with an ambitious dedication to sustainability and innovation. With brands across North America, Europe, and Asia and the Pacific, TU's vast selection of shelf-stable, chilled, and frozen foods and related products makes mealtimes delicious,

dynamic, easy, and healthy for millions of families worldwide. The TU portfolio of consumerfavourite brands has a global reach and is built on local insights and market preferences that inform product development. One partnership which was established in 2022 to demonstrate TU's commitment to improving sustainability in its supply chains is with the SFP.



<u>Sustainable Fisheries Partnership</u> (SFP) is a US-based non-profit organisation,
 operating globally to improve fish stocks and reduce the environmental and social impacts of fish farms and fishing. The SFP philosophy is that everyone should have access to seafood that is produced sustainably. At a minimum, this means

ensuring the recovery and continued productivity of fisheries and fish farms. But it also means reducing the interaction rate of vulnerable species such as sharks and sea turtles, decreasing the spread of disease among aquaculture farms, eliminating the use of harmful fishing gear, and enabling small-scale fishers to effectively participate in fisheries management. To achieve these goals, SFP engages with retailers, brands, and foodservice companies to drive actions through their supply chains.

In 2021, SFP, and its non-governmental organisation (NGO) partners, Birdlife International and Whale and Dolphin Conservation launched their new work to conduct audits (the bycatch audit) on wild-caught fisheries. In 2022, TU decided to collaborate on this project with SFP, and the fisheries listed on the <u>Ocean Disclosure Project (ODP)</u> profile of TU were assessed to understand more about the current bycatch mitigation practices and the extent that the fisheries are posing a risk to endangered, threatened, or protected (ETP) species, including sharks, turtles, seabirds, and marine mammals (Sustainable Fisheries Partnership, 2022).

Three fisheries per ETP taxa were identified as being "highest risk", meaning that their operational activity poses a significant threat to ETP species (note that other fisheries in Thai Union's supply chain may also be a high risk but only the top three per ETP taxa were identified in the bycatch audit). In order to reduce the interaction rate of and risk to ETP species, SFP also outlined some specific improvements that can and should be made to the fisheries and fishing vessels.



1.2 Purpose of the project

Public and consumer interest in global fisheries has continued to grow, especially regarding exploitation of fish stocks, and detrimental impacts on charismatic species, including sharks, turtles, seabirds, and marine mammals. These species are also some of the most vulnerable species to overfishing and anthropogenic exploitation and are known collectively as Endangered, Threatened, or Protected (ETP) species. The increase in public interest in ETP species means that fishing companies and retailers are facing further scrutiny of the supply chains and fisheries that they source from. Therefore, it is critical that these parties actively demonstrate their efforts to mitigate the impacts on ETP species.

There are mandated mitigation measures for global tuna fisheries set by Regional Fisheries Management Organisations (RFMOs), including the International Commission for the Conservation of Atlantic Tunas (ICCAT), the Inter American Tropical Tuna Commission (IATTC), the Indian Ocean Tuna Commission (IOTC), and the Western and Central Pacific Fisheries Commission (WCPFC). Each RFMO has specific guidance about mitigation methods that are required onboard all tuna fishing vessels operating within the RFMO jurisdiction. Fisheries are required to demonstrate the implementation of these mitigation procedures and provide annual reports on the ETP interaction rates. However, these are often considered the bare minimum that fisheries can do to mitigate against ETP species interactions. TU desires to source from the fisheries and FIPs that exceed the requirements of RFMOs in terms of bycatch mitigation techniques and have already committed to sourcing only from vessels with observer (human or electronic) coverage on board.

For some fisheries that are aiming to obtain certification by the Marine Stewardship Council (MSC), they must demonstrate that they are not only meeting the RFMO requirements, but also meeting the requirements of the MSC fisheries standard (these based on the United Nations Food and Agricultural Organisation (UN FAO) Code of Conduct for Responsible Fisheries): Principle 1 – Sustainable fish stocks, Principle 2 – Minimising environmental impacts; and Principle 3 – Effective management.

The MSC is the world's most recognised certification for sustainable seafood and is coveted by global fisheries aiming to improve their sustainable practices. A way of ensuring that a fishery meets the requirements of the fisheries standard is to engage in a FIP, which assesses the fishery against the standard to identify any weaknesses or areas for improvement. The FIP will then work to improve these areas over the course of up to five years. For Principle 2, the MSC requires that there is clear management in place that does not negatively impact ETP species. Typically, FIPs will be encouraged to develop and implement an ETP species management plan into their fishing practices. The requirements in the management plans are usually aligned with the RFMOs', however, oftentimes they will supersede these to increase the conservation potential.

The purpose of this report is to provide an overview of the analysis that KT conducted on the bycatch audit, including the recommendations made by SFP on the TU-sourced fisheries identified as "highest risk". The report overview is able to demonstrate how the FIPs have committed to implement best practices designed to reduce the interactions and risks to ETP species.



2 What did the project do?

The bycatch audit conducted by SFP provided information on the generic insufficiencies in the bycatch mitigation strategies adopted by some of the fishery types at regional or high level. The SFP bycatch audit provided a rationale for the scoring and made improvement recommendations that aim to reduce the interaction rate in the future divided by each ETP species designation (sharks, seabirds, turtles, and marine mammals).

The first stage of the analysis project was to review the SFP bycatch audit results, which highlighted the top three "highest risk" fisheries to each ETP species taxa (sharks, seabirds, turtles, and marine mammals) that TU sources from (Table 1). For each of the fisheries, KT assessed the number of improvement recommendations that had been made by SFP and had been implemented in the fisheries that TU sources from. The recommendations made by SFP were largely in relation to suggested gear modifications to reduce both the interaction rate and mortality risk to ETP species. A general improvement recommendation made by SFP for all fisheries is to increase the total observer coverage of the vessels to 100% and ensure that appropriate and sufficient observer data is obtained for these fisheries.

	Current scoring				
Fishery	Sharks	Seabirds	Turtles	Marine mammals	
Albacore tuna longline fishery – Indian Ocean	Highest risk	Highest risk	Not identified as high risk	Not identified as high risk	
Skipjack and yellowfin tuna FAD associated purse seine fishery – Indian Ocean	Highest risk	Not identified as high risk	Not identified as high risk	Not identified as high risk	
Mahi mahi longline fisheries – Eastern Pacific Ocean	Highest risk	Highest risk	Highest risk	Not identified as high risk	
Mahi mahi longline fishery – Western and Central Pacific Ocean, and Indian Ocean	Not identified as high risk	Not identified as high risk	Highest risk	Not identified as high risk	
Blue swimming crab gillnet fisheries – Southeast Asia	Not identified as high risk	Not identified as high risk	Highest risk	Not identified as high risk	
Swordfish longline fishery – Southeast Pacific Ocean	Not identified as high risk	Highest risk	Not identified as high risk	Not identified as high risk	
American lobster and Jonah crab pots/traps fisheries – Northwest Atlantic Ocean	Not identified as high risk	Not identified as high risk	Not identified as high risk	Highest risk	
Lumpfish gillnet/entanglement net fishery – Norway	Not identified as high risk	Not identified as high risk	Not identified as high risk	Highest risk	
Alaska pink salmon gillnet/entanglement net fishery – USA	Not identified as high risk	Not identified as high risk	Not identified as high risk	Highest risk	

Table 1: Matrix of the bycatch audit result scoring for each of the ETP species mitigation techniques within different fisheries that TU sources from.



The next stage of the analysis project was for KT to do a deep dive into the TU FIPs that operate in the same areas as the "highest risk" fisheries. Data collection consisted of discussions with FIP managers and reviewing FIP management documentation that is published on the individual FIP profiles on <u>FisheryProgress</u>. Using this information, KT conducted detailed analysis on the current commitments, i.e., through policies and management plans, that the FIPs have made to reduce their rate of interaction with ETP species. The comparison between the FIP management plans and the bycatch audit was able to identify whether the FIPs are or are not meeting the proposed recommendations from SFP.

KT proceeded to write a report about the analysis conducted on the FIPs, identifying which ones are able to demonstrate that they have committed to implementing the mitigation techniques recommended by SFP during the bycatch audit. Once a draft report was produced, members from TU, SFP, and KT held virtual meetings to discuss the outcomes and results. Any comments made on the findings were considered and amended where appropriate. Following this stage, a final report was produced, which informed a discussion panel of the three project collaborators during the Seafood Expo North America, in March 2023. The panel highlighted the main results of the project and described the next steps to ensure that ETP species bycatch management practices are being implemented and are effective. The final stage of the project was creating a public-facing report that can be used to inform about TU's commitments to reducing the rates of ETP species bycatch in the fisheries and FIPs from which they source.



3 Overview of results

The analysis conducted by KT compared the recommendations made by SFP during the bycatch audit for the "highest risk" fisheries with the commitments to ETP species bycatch management by FIPs. The analysis demonstrated that the FIPs are largely meeting or exceeding the best practices recommended by the bycatch audit. One of the generic recommendations made is to increase observer coverage (human or electronic) across the fisheries. Two of the FIPs have already implemented 100% observer (human or electronic) coverage in their fleets and most of the other FIPs have committed to meeting the 20% minimum recommended. TU has also committed to sourcing only from FIPs that can demonstrate 100% observer coverage by 2025 and is implementing this with the NGO, The Nature Conservancy (TNC).

Each of the FIPs that were identified as overlapping with the "highest risk" fisheries are described below:

1. Indian Ocean tuna – longline FIP (Thai Union)

The Indian Ocean tuna longline FIP was established in December 2018 and is a collaboration of more than 30 large vessels, flagged to Taiwan and Malaysia. The vessels target albacore (*Thunnus alalunga*), bigeye (*T. obesus*), and yellowfin (*T. albacares*) tuna and catch an estimated 5,000 metric tonnes (MT) per year. More information about the FIP can be found by following the link to the FIP profile above.

2. Indian Ocean tuna – purse seine FIP (SIOTI)

The Indian Ocean tuna purse seine FIP, a.k.a. the Sustainable Indian Ocean Tuna Initiative (SIOTI), was established in April 2017 and coordinates more than 20 large longline vessels, flagged to France, Mauritius, Seychelles, Spain, and Italy. The vessels target yellowfin, bigeye, and skipjack (*Katsuwonus pelamis*) tuna, catching an estimated 190,000 MT per year. More information about the FIP can be found by following the link to the FIP profile above.

3. Pacific Ocean tuna – longline (Liancheng)

The Pacific Ocean tuna longline FIP (Liancheng) was established in 2019 and is a collaboration of more than 80 large longline vessels flagged to China, Taiwan, and the Federated States of Micronesia. The fishery also targets albacore, bigeye, and yellowfin tuna, catching an estimated 94,000 MT annually. More information about the FIP can be found on the FisheryProgress profile linked above.

4. Pacific Ocean tuna – longline (Thai Union)

The Pacific Ocean tuna longline FIP (Thai Union) was established in 2017 but was split in 2023 to accommodate the needs of the project and is now represented by two companies, TU and Ping Tai Rong Ocean Fisheries (PTR). Both FIPs target albacore, bigeye, and yellowfin tuna, and catch and estimated 5,000 MT per year. The PTR FIP has not yet been published on FisheryProgress, but more information about the original project can be found on the profile, following the link above.



Each of the FIPs have ETP management strategies written into their fisheries management objectives. These management strategies outline the mitigation techniques that are required to be implemented across the vessels within the fleet. Many of the requirements of the ETP management strategies meet or exceed the recommendations made by SFP for the "highest risk" fisheries. The following scoring matrix (Table 2) was developed to explain where each of the FIPs has met the improvement recommendations made by the bycatch audit in their ETP management strategies and show what percentage of the recommendations they have committed to.

- The FIP(s) that have demonstrated commitments to all of the recommendations made by the bycatch audit are designated 100%.
- The FIP(s) that have demonstrated commitments to some of the recommendations made by the bycatch audit are designated less than 100%. The only two FIPs not to meet 100%, met four of the six recommendations made by SFP, which is why they are listed as 66% in the matrix.

Table 2: Matrix of the rating for the ETP species mitigation techniques committed to by tuna FIPs TU sources from.

Current scoring				
FIP Name	Sharks	Seabirds	Turtles	Marine mammals
<u>Indian Ocean tuna – Iongline FIP (Thai Union)</u>	100%	100%	100%	100%
<u> Pacific Ocean tuna – Iongline (Thai Union)</u>	100%	66%	100%	100%
<u> Pacific Ocean tuna – longline (Liancheng)</u>	100%	66%	100%	100%
Western and central Pacific Ocean tuna – purse seine	100%	100%	100%	100%
Indian Ocean tuna – purse seine FIP (SIOTI)	100%	100%	100%	100%
Eastern Atlantic Ocean tuna – purse seine (EASTI)	100%	100%	100%	100%
<u>Ghana tuna – pole-and-line</u>	100%	100%	100%	100%

A short summary of the current commitments made by the FIPs and how they correspond with the improvement recommendations made by SFP for each of the ETP species designation is outlined below.

3.1 Sharks



Figure 1: Photo of a blacktip reef shark (Carcharhinus melanapterus) (SFP, 2022)

Sharks are considered as 'keystone' marine species because they act as a pillar of ecosystem health and stability and can have direct impacts on species lower down in the food web (Giovos, et al., 2021). However, some of the bodily processes in sharks make them highly susceptible to overfishing such as; long generation times, slow reproduction rates, and few offspring (Dulvy, et al., 2008; Giovos, et al., 2021), meaning that impacts on small numbers of their populations can be detrimental.

Studies have demonstrated that longline and purse seine fishing catch the greatest number of sharks annually as bycatch (Anticamara, et al., 2011; Poisson, et al., 2021). Methods to reduce the negative impacts that fisheries have on ETP shark species with longline and purse seine fisheries have been well researched but are seldom used because of the lack of mandated requirements from large RFMOs and governing bodies. Therefore, improvements in individual tuna fisheries are required to protect these species.

There are two FIPs in the review that operate in the same fishing areas that were listed as being "highest risk" by the bycatch audit, including:

- 1. Indian Ocean tuna longline FIP (Thai Union)
- 2. Indian Ocean tuna purse seine FIP (SIOTI)

Both FIPs have committed to implementing the following bycatch mitigation techniques, in line with ISSF Best Practices, into their fisheries management practices to reduce ETP shark interactions. These were all of the recommendations made in the bycatch audit resulting in 100% of the recommendations being met:



1. Changed the bait to finfish

Longline fisheries that use fish rather than squid as bait on the hooks have demonstrated a significant reduction in the number of sharks that become hooked on the gears.

2. Use of circle hooks

Circle hooks differ from the traditional 'J hooks' because they are much wider and mean that if a shark does become caught, the hook will not cause as significant an injury because it will be easier to remove.

3. Deep setting gear

The majority of shark interactions occur in the shallow depths of the ocean, so the FIP has implemented a requirement that all lines are set deeper in the water column to try and avoid shark hotspot areas and deter interactions.

4. Use of nylon leaders and banning shark lines

Traditionally, the material used in the construction of longline gears is wire, which makes it exceedingly difficult for a shark to free itself if it does become hooked. The FIP requires that all longline gears are made from nylon materials, which can be broken more easily if there is an incident of shark hooking.

5. Prohibited shark finning

There is no shark finning permitted onboard the vessels within the FIP fleet. If a shark is retained, it must have its fins naturally attached to demonstrate compliance with the anti-shark finning policy.

There are three other FIPs that TU sources from that are listed on the ODP website, however they were not included in this analysis of the bycatch audit because the decision was made to focus on tuna fisheries. These will be considered in a later phase of the partnership deep dive.

- 1. Costa Rica large pelagics longline and green stick
- 2. Ecuador mahi-mahi longline
- 3. Peru mahi-mahi longline (WWF)



3.2 Seabirds



Figure 2: Photo of a flock of white capped albatross (Thalassarche cauta steadi) (SFP, 2022)

Seabirds are top marine predators and are a great indicator of ecological and environmental change because they consume species lower in the food web. Seabird predation on pelagic fish species is critical to ecosystem stability, meaning that dramatic changes to their population sizes could negatively impact the prey species populations (Hammerschlag, et al., 2019). However, many seabird species are facing the increasingly serious risk of extinction from anthropogenic exploitation, including overfishing.

Some of the richest longline fishing grounds coincide with key foraging areas for sea bird species, including albatross and petrels. The birds come into conflict with fisheries when bait and fish waste enters the ocean during longline setting, which entices the birds to the line and they can become hooked and drown (Bird Life International, 2011). ETP seabirds include 17 species of albatross (IUCN Red List, 2022), and are among some of the most threated species by longline fishing because they spend the majority of their lives at sea feeding on schooling fish, which puts them at high risk for incidental catch (Žydelis, et al., 2013).

There are three tuna FIPs that TU sources form that overlap with the "highest risk" fisheries described by SFP in the bycatch audit, including:

- 1. Indian Ocean tuna longline FIP (Thai Union)
- 2. Pacific Ocean tuna longline (Liancheng)
- 3. Pacific Ocean tuna longline (Thai Union)

All FIPs comply with the requirement of the IOTC and WCPFC that fisheries operating in the jurisdiction should implement a number of their recommended mitigation techniques to reduce seabird interactions. Furthermore, the FIPs have also committed to the following bycatch



mitigation techniques, stated in their fisheries management practices to reduce ETP seabird interactions:

1. Side-setting with bird curtains

Setting the line at least one meter forward from the stern, off of either the port or starboard sides of the vessel, has shown to reduce the time that the baited hooks are visible near the surface of the water. When used in conjunction with a bird curtain, the bait becomes more shielded and prevents seabirds reaching the bait.

2. Blue-dyed bait

Dying the bait blue, has shown to act as a camouflage in the water and prevents the birds from being able to predate on the hooks.

3. Offal management

During the line setting, vessels are prohibited from discharging offal or waste in the vicinity of the longline gear, to reduce the chances of seabirds becoming accidentally hooked on the line.

4. Deep setting gear

Setting the line deeper below the surface has demonstrated a reduction in the number of seabird interactions with longline fisheries because they cannot see the bait and are not tempted to try and catch it.

5. Bird scaring (tori) lines

In 2020, the FIP introduced a mandatory use of tori lines policy, regardless of the other mitigation techniques used onboard the vessels to deter seabird interaction.

6. Night setting

Most albatross species do not hunt at night, so ensuring that the vessels are only setting the longline gears when it is dark at night will reduce the attraction of the birds to the vessels and thus reduce the interaction rate with the fishing gear.

7. Best practice handling techniques

The ETP management strategy also outlines the best practice handling and release procedures for skippers and crew to ensure the post-release survivability of any seabirds that have interacted with the vessel. Finally, the strategy highlights the importance of reporting all interactions with seabirds, recording details at the species level in order to be able to inform conservation organisations for research into populations.

There are three other FIPs that TU sources from that are listed on the ODP website, however they were not included in this analysis of the bycatch audit because the decision was made to focus on tuna fisheries. These will be considered in a later phase of the partnership deeper dive.

- 1. Costa Rica large pelagics longline and green stick
- 2. Ecuador mahi-mahi longline
- 3. Peru mahi-mahi longline (WWF)



3.3 Sea turtles



Figure 3: Photo of a green turtle (Chelonia mydas) (SFP, 2022)

Sea turtles are some of the most charismatic ETP marine species. There are seven different sea turtle species around the world, and all are not only culturally but ecologically significant to the marine environment. Turtles play a significant role in ecosystem stability because they are known as "ecosystem engineers", which means they have a critical role in the balance of habitats and organisms. Removing turtles from the environment could lead to knock-on effects on these ecosystems and has been shown to deteriorate seagrass and coral reef habitats (Mancini, et al., 2011).

All sea turtles are protected internationally as they have life histories that make them highly vulnerable to fishing, including slow growth rates, long lives, and late sexual maturity (Mancini, et al., 2011). They face a number of environmental challenges, including interactions with fisheries and fishing gear (ISSF, 2014). Turtles are often attracted to and attempt to eat the bait that is set on longline gears. However, once ingested, the hooks can catch in their mouths or throat and lead to drowning if the animal is not quickly released (Gilman, et al., 2006).

There are two FIPs that TU sources form that overlap with the operational areas described by the "highest risk" fisheries in the SFP bycatch audit, including:

- 1. Pacific Ocean tuna longline (Liancheng)
- 2. Pacific Ocean tuna longline (Thai Union)

Both FIPs have committed to implementing the following bycatch mitigation techniques into their fisheries management practices to reduce ETP sea turtle interactions; the below list is all of the recommendations made in the bycatch audit and of the FIPs demonstrated that they were implementing 100% of the recommendations:



1. Changed the bait to finfish

Changing the bait from squid to fish reduces the attraction of turtles to the hooks and minimises interactions with these ETP species.

2. Use of circle hooks

As with sharks, if a turtle ingests the bait on a hook, the hook can get lodged inside its mouth or throat. Circle hooks are typically larger and are less likely to cause significant damage. Fishers can simply remove the hook and release the animal back to the sea with a high rate of survival.

3. Deep setting gear

Like sharks and seabirds, turtles are attracted to the bait that is attached to the hooks on longline fishing gears. Setting the line deeper in the water column reduces the number of interactions with turtles when they surface for breath.

There are eight other FIPs that TU sources from that are listed on the ODP website, however they were not included in this analysis of the bycatch audit because the decision was made to focus on tuna fisheries. These will be considered in a later phase of the partnership deeper dive.

- 1. Costa Rica large pelagics longline and green stick
- 2. Ecuador mahi-mahi longline
- 3. Peru mahi-mahi longline (WWF)
- 4. India Palk Bay blue swimming crab gillnet
- 5. Indonesia blue swimming crab trap & gillnet
- 6. <u>Thailand blue swimming crab bottom gillnet/trap</u>
- 7. <u>INACTIVE Vietnam blue swimming crab bottom gillnet/pot/trap*</u>
- 8. <u>INACTIVE Philippines blue swimming crab bottom-set gillnet & pot/trap (PACPI)*</u>

*The Vietnam and Philippines blue swimming crab FIPs (7., and 8.) became inactive on FisheryProgress after TU started sourcing from them.



3.4 Marine mammals



Figure 4: Photo of a southern right whale (Eubalaena australis) (SFP, 2022)

Marine mammals consist of a range of species, including cetaceans (whales and dolphins), pinnipeds (seals, sea lions and walruses), sirenians (manatees and dugongs), and fissipeds (polar bears and otters). However, the SFP audit only described fishery interactions with cetaceans, categorised as "marine mammals". Therefore, this report follows the direction of SFP and refers to only cetaceans in the marine mammal section of this report.

Marine mammals are among the most well-known marine species. These animals are also significant for the ecological stability of the oceans, with large whales contributing to carbon stores and environmental regulation (Pearson, et al., 2022). Cetaceans generally have a long lifespan, late sexual maturity, and a low number of offspring (Lewison, et al., 2004), so the removal of individuals from the environment may have detrimental effects on populations.

Incidental capture by purse seine fisheries is considered to be one of the most significant causes of mortality for many marine mammals. Once entangled in a net, they cannot reach the surface to breathe and may drown. Entanglements or capture in longline fisheries are rare and interactions are often driven by the attraction of cetaceans to feed on the bait or fish already caught on the gear (Fader, et al., 2021).

There were no TU FIPs that overlapped with the fishing areas that were listed as being "highest risk" by the bycatch audit. Nonetheless, the FIPs that TU sources from have committed to implementing 100% of the recommended bycatch mitigation techniques into their fisheries management plans to reduce negative interactions with marine mammals, which include:



1. Best practice handling procedures

As with the other ETP species, implementing best practice handling procedures is important for marine mammals to ensure crew and animal safety.

2. Prohibited setting on dolphins or whales

Traditionally, marine mammals like dolphins were used as indicators of a school of tuna and fishers would set their gears in the water where dolphins were located. Prohibiting this practice helps to reduce the chance that these animals will become entangled or caught in the gears.



4 Tuna FIPs not included in the report

There are three FIPs that TU sources from and participates in that do not overlap with the "highest risk" fisheries described in the bycatch audit and were thus excluded from the project. These were:

1. Western and central Pacific Ocean tuna - purse seine

The Thai Union western and central Pacific Ocean tuna purse seine FIP was established in 2019 and has a fleet of more than 20 purse seine vessels flagged to the Republic of Korea, Nauru, Federated States of Micronesia, the United States of America, Taiwan, Papua New Guinea, and Kiribati. The FIP vessels target bigeye, skipjack, and yellowfin tuna, catching an estimated 850,000 MT annually.

2. Eastern Atlantic Ocean tuna - purse seine (EASTI)

The Thai Union Eastern Atlantic Ocean tuna purse seine FIP was established in 2018 and is a collaboration of more than 25 large vessels flagged to Belize, Ghana, France, Spain, and Curacao. The vessels target yellowfin, skipjack, and bigeye tuna, catching an estimated 160,000 MT annually.

3. <u>Ghana tuna – pole-and-line</u>

The Thai Union Ghana pole-and-line FIP was established in 2018 and coordinates several large vessels, all flagged to Ghana. The vessels target skipjack, bigeye, and yellowfin tuna, and catch an estimated 13,000 MT annually.

Although not in scope, the report did investigate and can report that these FIPs do have ETP management strategies enshrined in their fisheries management to reduce the interaction with ETP species by using the same mitigation techniques recommended by SFP for the "highest risk" fisheries.



5 Conclusions and next steps

The bycatch audit clearly defined improvement recommendations for the "highest risk" fisheries that correspond with some of the existing actions within the FIPs' ETP management strategies. The FIPs have largely committed to and started to implement the bycatch mitigation techniques recommended by SFP in the bycatch audit, and two FIPs in particular have been able to demonstrate these techniques through the use of observer/EM data analysis. However, some FIPs still have progress to make by increasing the observer coverage to meet the TU deadline of only sourcing from fisheries that have 100% observer coverage (human or electronic) by 2025.

There are three general recommendations made to all FIPs in their efforts to improve and learn more about the ETP species interaction rate, including:

- 1. Adopting best practice handling and release techniques on all vessels;
- 2. Increasing observer coverage to 100% by 2025; and
- 3. Ensuring that best practice bycatch mitigation measures are effective by conducting annual analysis of observer and/or electronic monitoring (EM) data.

The group plans to initiate a phase two of the project and use the observer and EM data from the TU FIPs to evidence that the mitigation techniques described in the ETP species management strategies are being implemented. Furthermore, the second phase of the project plans to verify that the commitments made in the management strategies are functional and effective at reducing ETP species bycatch and interactions with the FIPs. Using observer and EM data, the group will analyse the rate of ETP species interaction over the past five years to determine if the implementation of the ETP species management plan and the mitigation techniques have led to a decrease in the rate of ETP species interactions. These analyses will be conducted annually to consistently monitor the ETP species interactions and ensure that the commitments made by the FIPs are upheld. Finally, phase two will also increase the scope of analysis to include the non-tuna FIPs that were briefly mentioned in this report. Likewise, the FIP will also monitor other marine mammal species interactions to include any incidents that do not arise solely from cetaceans. Including these additional features to the project will provide a more rounded analysis of the ETP species interactions and mitigation techniques in place within the TU FIPs and demonstrate TU's dedication to improving the sustainability of ETP species.



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