



Out of line

The failure of the global
tuna longline fisheries

November 2013

GREENPEACE

Contents

#1 Introduction: Out of control, out of sight	04
#2 Longline Fishing: Illegal, unreported and unregulated (IUU)	12
#3 Tuna Traders: Missing link to sustainable longline fishing	22
#4 Unravelling the markets: Where is it caught and where is it sold?	26
#5 Human and Marine Collateral damage	32
#6 Conclusions and Recommendations	36
Endnotes	40

For more information contact:

pressdesk.int@greenpeace.org

Written by:

Helene Bours, Jeonghee Han, Wakao Hanaoka, Sarah King, Oliver Knowles, Eleanor Partridge, Karli Thomas, Sari Tolvanen, Casson Trenor.

Edited by:

Alexandra Dawe, Isabel Leal, Eleanor Partridge

Art Direction, Design and Infographics:

Sue Cowell / Atomo Design
www.atomodesign.nl

Cover photograph:

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The Longline fishing industry is largely operating outside of modern fisheries management due to resistance from flag states and industry to properly regulate and manage this fishing sector.

Image Frozen tuna on a Taiwanese vessel in the Pacific. Tuna is stacked and frozen on board the Taiwanese longline fishing vessel Kai Jie 1.

#1

Introduction

Out of control, out of sight

Most of the global longline fisheries are operating out of control and out of sight. A huge fleet of over 5000 vessels roams the world's oceans with almost no control mechanisms in place to ensure that their operations are legal, sustainable and ethical. The industry is largely operating outside of modern fisheries management due to resistance from flag states and industry to properly regulate and manage this fishing sector within the five Regional Fisheries Management Organisations (RFMOs), who are responsible for the world's tuna fisheries.

This has led to massive overfishing and depletion of the target species bluefin, bigeye, yellowfin and albacore tuna. It also amounts to a huge and unsustainable annual catch of vulnerable and endangered marine animals such as turtles, sharks and seabirds. This report will uncover all the issues, the key players and the solutions.

Global Tuna Fisheries

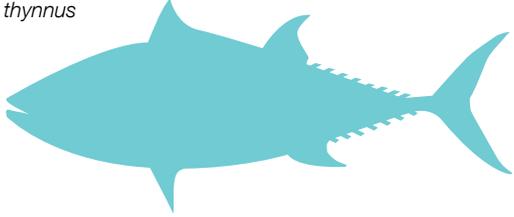
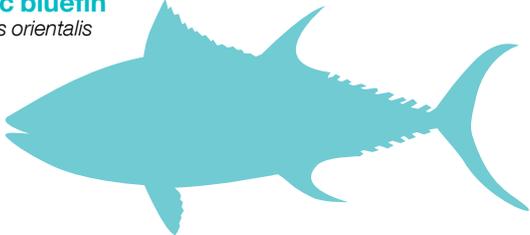
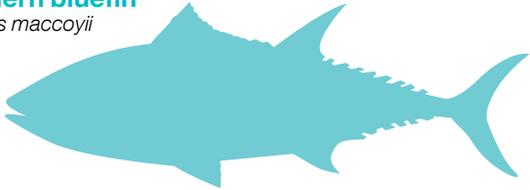
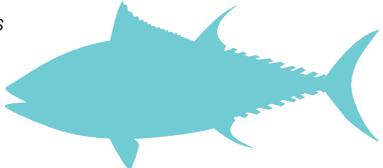
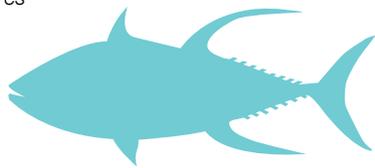
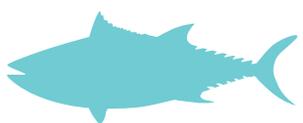
Globally there are seven commercially significant tuna species that are exploited across all of the world's oceans. These are the three bluefin tuna species each named after their specific ranges – Atlantic, Southern and Pacific –, plus the bigeye, yellowfin, albacore and skipjack tunas that each have distinctive stocks across the Pacific, Indian and Atlantic oceans.

The main fishing methods used to catch these species are purse seine, longline, handline, pole and line, troll, gillnets and ringnets. Over 1000 purse seiners take the biggest share of the catches, 60% globally (2010 figures)¹, including over 600 large-scale purse seiners² that mainly target skipjack, yellowfin and bluefin tuna³. Longline fleets that target high value bluefin, bigeye, yellowfin and albacore tunas take the second largest portion of the catch at 12% (2010 figure)⁴.

The total longline landings recorded by United Nations Food and Agriculture Organisation (FAO) declined to 526,406 mt from 2004 to 2010 (last year of data available)⁵, but globally the longline fleet continues to expand⁶. As a result of this overcapacity and the resultant overfishing, all the tuna species targeted by longline fleets are now either overfished, experiencing overfishing or showing signs of stock declines and declining catch per unit effort (CPUE) leading to poor economic performance as stocks decline (see table 1).

The species targeted by longline fishing are slower to mature and have lower reproductive rates than smaller tunas such as skipjack making them particularly vulnerable to overfishing.

Table 1: Stocks status of key tuna stocks targeted by longline method

SPECIES	IUCN Red List category	Stock	Overfished (<BMSY or similar)	Overfishing (>FMSY or similar)	Stock remaining (% unfished adult stock or SB0 unless indicated)	
Atlantic bluefin <i>Thunnus thynnus</i> 	Endangered	West Atlantic	YES	Significant risk	36% (of 1970 level)	
		East Atlantic	YES	NO	?	
Pacific bluefin <i>Thunnus orientalis</i> 	Least Concern (prior to recent stock assessment)	Pacific	YES	YES	4%	
Southern bluefin <i>Thunnus maccoyii</i> 	Critically Endangered	Southern	YES	Significant risk	5%	
Bigeye <i>Thunnus obesus</i> 	Vulnerable	Western & Central Pacific	Significant risk	YES	23%	
		East Pacific	Significant risk	Significant risk	22%	
		Indian	Significant risk	Significant risk	34–39%	
		Atlantic	Significant risk	Significant risk	30–40%	
Yellowfin <i>Thunnus albacares</i> 	Near Threatened	Western & Central Pacific	Total stock: NO	Total: Significant risk	50–55%	
				Region 3: Significant risk (where 81% are caught)	Region 3: Significant risk	31%
		East Pacific	YES	Significant risk	22–34%	
		Indian	Significant risk	Significant risk	28–38%	
		Atlantic	YES	Significant risk	<30% (pre-1970s level)	
		Med	?	?	?	
Albacore <i>Thunnus alalunga</i> 	Near Threatened	North Pacific	NO	NO	?	
		South Pacific	NO	NO	59%	
		Indian	Significant risk	YES	29%	
		North Atlantic	YES	NO	33% (late 1940s level)	
		South Atlantic	YES	YES	25%	
		Med	?	?	?	

Regional Fisheries Management Organizations (RFMOs) are currently failing in their mandate to ensure sustainable management of tuna fisheries, including managing fishing capacity.

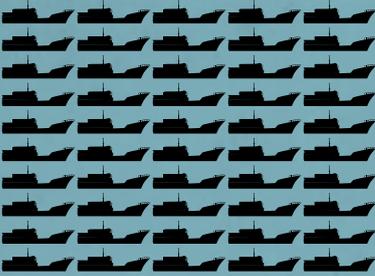
Image Frozen tuna being inspected prior to auction, at the Tsukiji wholesale fish market (Japan), the largest fish market in the world.

LONGLINER IN OPERATION

LONGLINE FISHING BOATS

Nobody knows exactly how many longline boats are out in the ocean but estimates indicate there are over 5000 longline vessels fishing for tuna and tuna like species in the world.

OVER 5000 LONGLINE VESSELS



SIZE

Longline fishing boats can be up to 60m long, however, most are so-called small scale vessels of less than 24m.



LONGLINES + HOOKS

up to 150 km long



up to 3000 hooks

MARINE ANIMALS DYING

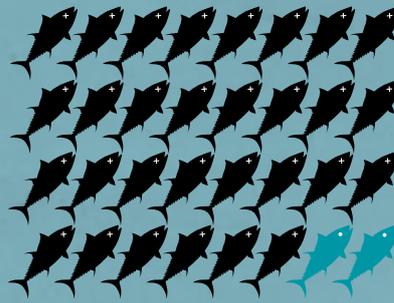
300.000 sea turtles and at least 160.000 seabirds and millions of sharks die annually in longline fisheries.

300.000
SEA TURTLES

160.000
SEA BIRDS

MILLIONS
SHARKS

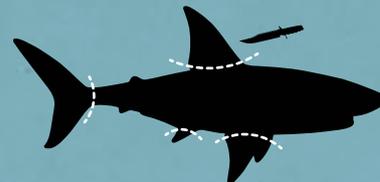
OVERFISHING



All target tuna species now either overfished, being overfished or depleted.

SHARK FINNING

Sharks often targeted for their high value fins make up as much 50% of catches in some longline fisheries.



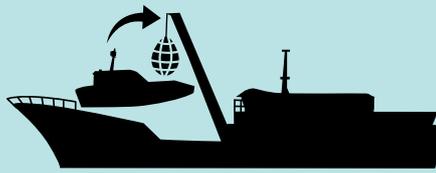
UP TO

50%

OF CATCHES CAN BE SHARKS

PIRATE FISHING AND TRANSSHIPMENT

Many vessels transfer their catches at sea resulting in high amounts of unreported and illegal fishing.



MISTREATMENT OF CREW

Vessels can stay at sea for several years keeping their crew in a captive environment.



SOLUTIONS

-  Reduce fishing capacity and enforce sustainable catch limits
-  Ban all at-sea transshipments
-  proper monitoring and 100% observer coverage

MITIGATE BY-CATCH BY:

-  Not targeting sharks and banning shark finning
-  Use circle hooks and other best practise mitigation methods

Longline fishing method

Unlike for purse seine vessels, there are no accurate numbers of just how many longline fishing vessels there are in the world, but sources indicate that there are at least over 5000 vessels⁷ with more being built or converted from other types of vessels.

The world's largest tuna fishing ground, the Western and Central Pacific Ocean, currently has 3,629⁸ longline vessels registered to fish in that region alone, and like most other international tuna fisheries, has no limit on total numbers of vessels allowed to enter the fishery. Major fishing powers contributing significant numbers of vessels to the global longline fleet include Taiwan, the EU, Indonesia, Sri Lanka, Japan, China and Korea.

Longline fishing methods tend to target adult tunas as well as billfish and sharks and take place both in the surface as well as deeper in the water column depending on target species. Catch is then either frozen or stored in ice/brine on board and eventually sold as either high-end sashimi or frozen fish/tuna. In the case of albacore and sometimes yellowfin the meat is also used for canning. Sharks are either landed whole or fins are removed at sea and carcasses discarded.

There are several sizes of longline vessels with various hold and freezing capacities but generally they are divided between those above and below 24m (See box 1), the so called "small-scale" longline vessels and large scale longline vessels that can be up to 60m long. These vessels set a line up to 150km long with several thousand baited hooks that is left to soak, and then recovered once or twice per day⁹.

Whilst some vessels do short trips of up to a couple of months at a time and land their catches in ports, many stay at sea for many months to over a year and transfer their catches to reefers, or refrigerated cargo vessels, and receive supplies of fuel, food and water at sea¹⁰.

Regional Tuna Fisheries Management Organisations

As highly migratory species tunas travel large distances during their life span and hence require international management efforts. There are five regional tuna fisheries management organisations

(RFMOs): the International Commission for the Conservation of Atlantic Tunas (ICCAT), the Indian Ocean Tuna Commission (IOTC), the Inter American Tropical Tuna Commission (IATTC), the Commission for the Conservation of Southern Bluefin Tuna (CCSBT) and the Western and Central Pacific Fisheries Commission (WCPFC). Their task is to manage the exploitation of this multi-billion dollar resource¹¹, which provides an important source of protein to millions, supports local economies and communities. The membership of these mainly consensus-based organisations is made up of each of the region's coastal states as well as distant water fishing powers that are involved in the fisheries.

All these RFMOs are currently failing in their mandate to ensure sustainable management of tuna fisheries including managing fishing capacity, as the negotiations are generally dominated by the short-term economic interests of the fishing powers rather than the long-term sustainability and economic performance of the fisheries. As a result there is huge overcapacity in the world's fishing fleets, including in tuna fisheries, and particularly in the longline fisheries. Yet the RFMOs have been unable to restrict vessel numbers or catch levels to ensure long-term sustainability.

This report outlines the main problems associated with longline fishing beyond the alarming overfishing situation; targeted shark finning, illegal, unregulated and unreported (IUU) fishing, bycatch of endangered and vulnerable species, as well as the occurrence of crew abuse and dire working conditions onboard some of these vessels.

It sheds light on the key players in this industry - the tuna traders, Itochu, Mitsubishi, FCF and Tri Marine - some of the biggest tuna companies in the world that benefit from and enable the longline industry whilst operating largely beyond the scope of public scrutiny. It also takes a look at some of the key markets and players who, together with the traders, have a key role to ensure sustainable procurement of longline caught tuna. Finally the report puts forward sustainability and management recommendations that are urgently needed to bring this industry under control before all tuna is gone.

Longline fishing methods tend to target adult tunas as well as billfish and sharks. Sharks are either landed whole or fins are removed at sea and carcasses discarded.

Image A blue shark (*Prionace glauca*) is pulled onboard a Japanese longliner, Fukuseki Maru No 07 from the deep waters in the Mozambique Channel.



Image Monitoring Illegal Fishing Activities in the Pacific Ocean. GPS data is caught on camera as the Japanese fishing vessel Koyu Maru 3 pulls in an illegal longline in Cook Island waters. The Greenpeace ship MY Esperanza was monitoring the pockets of international waters that the Pacific Island Countries want closed from all fishing activities.

#2

Longline Fishing

Illegal, unreported and unregulated (IUU)

Tropical and temperate tuna fisheries, including longline fisheries, take place on the high seas as well as in the exclusive economic zones (EEZs) of developing coastal states where there is either poor or no monitoring, control, surveillance and enforcement (MCSE). Whilst globally there have been many attempts to improve the MCSE of the tuna fleets by the RFMOs, and for individual vessels and fleets, in response to demand from markets and certain governments, so far only some international purse seine fisheries have come under adequate management to curb illegal, unreported and unregulated (IUU) fishing. These vessels have to carry independent observers in addition to automatic vessel monitoring systems (VMS), carry unique numbers from the International Maritime Organisation (IMO), and are not allowed to transfer catches at sea.

For longline fisheries the situation is totally inadequate with regards to internationally binding regulations to deter IUU fishing. Aside from some coastal and locally managed longline fleets that fall under better management, very few management measures exist at RFMO level to ensure legal and sustainable longline operations. The situation is well illustrated by the fact that to date only one longline fleet targeting tuna has achieved Marine Stewardship Council (MSC) certification – an albacore fishery in Fiji. The situation is particularly difficult when vessels that predominantly fish on the high seas venture illegally into the EEZs of developing coastal states¹².

The few measures that RFMOs have created to regulate longline fishing and combat IUU fishing mainly relate to the use of vessel monitoring systems and reporting requirements as well as having observers on board fish carrier vessels – reefers – that are transshipping fish at sea in order to better record catches. Transshipment at sea is widely acknowledged to be a major regulatory loophole that facilitates the laundering of illegal and unreported catches worldwide^{13 14}, and continues to be standard operating practice for large numbers of tuna longline vessels.

Aside from some progressive coastal states that do not allow transshipments for vessels licensed to fish in their waters, no RFMO has prohibited the practise of transfer of catches at sea from longline vessels to reefers or other fishing vessels. There have been many calls to place observers on board longline vessels in order to improve compliance, but generally the observer coverage level required by RFMOs is around 5%. In some specific cases it is higher depending on the fishery and/or gear, but in reality is often lower due to ineffective implementation by flag States, inadequate conditions on board or to resistance from the industry.

In the absence of either human or well-functioning electronic observers, VMS-based monitoring of longline vessels is entirely inadequate, as it remains possible to tamper with them and misreport vessels positions¹⁵ or even switch them off entirely^{16 17}.

In 2012, the value of longline-caught tuna in the Western and Central Pacific (WCPO), the source of over 50% of global tuna landings, was \$1.96 billion USD, out of a total \$7.2 billion for the whole tuna fishery¹⁸. Regional estimates of IUU fishing put lost earnings from activities such as under-reporting or misreporting catch sizes at anywhere from the millions to over a billion USD annually¹⁹. A large chunk of this will be from the high value but poorly regulated longline fisheries. Many if not most fleets are not even adequately reporting their catches to relevant flag and coastal states and regional bodies (see case studies 1, 2 and 3). At the 2013 WCPFC

Scientific Committee (SC) meeting²⁰ the issue of poor reporting and data submission was frequently raised particularly with regards to longline data, and scientists highlighted the difficulties in performing accurate stock assessments for tunas and sharks that rely heavily on good longline CPUE data.²¹

The same has been reported in other tuna RFMOs²². It is also clear that where observer programmes do exist for at sea transshipments of longline catches, the reporting is either not working properly and transshipment measures are not adhered to, or clear evidence suggests that some longline vessels are conducting their unreported and illegal activities outside of the transfer vessel observer programme, using other vessels at sea to offload their catches, or by simply transferring illegal catches between longline vessels themselves (See case studies 1 & 3).

Case study 1 Jia Yu Fa and Her Hae

The Taiwanese small-scale longliners Jia Yu Fa and Her Hae were documented during Greenpeace's expedition in the Pacific Ocean on the 2nd September 2009. The vessels were spotted in the High Seas Pocket 1 bordered by Palau, Papua New Guinea and Federated States of Micronesia (FSM), close to Federated States of Micronesia's EEZ border. The vessels were documented transferring frozen tuna from Jia Yu Fa to Her Hae.

Jia Yu Fa held a FSM fishing license, which specifically prohibits the transfer of fish at sea. When the activity was reported to local authorities, Greenpeace received confirmation that no permission had been sought nor granted for the transshipment under special circumstances such as technical failures with freezers. The receiving vessel Her Hae held no fishing licenses with any Pacific Island countries, and did not appear on the Forum Fisheries Agency's good standing list.

By leaving FSM waters and transferring its catches to vessels that are not obliged to report to coastal States, the Jia Yu Fa is able to avoid having to declare and pay for tuna that was caught inside FSM waters. Instead the catches can be "declared" as high seas catches by the Her Hae, which most likely proceeded to meet with a reefer on the high seas later on in order to transport the fish to the market place - most probably in Japan.



Image Taiwanese longline fishing vessels Her Hae (left) and Jia Yu Fa (right) illegally transferring fish at sea.





Transshipment at sea is widely acknowledged to be a major regulatory loophole that facilitates the laundering of illegal and unreported catches worldwide.

Image Taiwanese longline fishing vessels Her Hae (left) and Jia Yu Fa (right) illegally transferring fish at sea in the Pacific Ocean.

THE COMPLEX GLOBAL SUPPLY CHAIN OF LONGLINE CAUGHT TUNA

The global tuna longline supply chain is a complex and opaque web of operations that can take place far away from any proper monitoring, control and surveillance. Illegal and unreported catches are facilitated by at-sea transshipments. It is the traders that keep this web of operations afloat and provide the products to the end markets.

FISH LAUNDERING: A

Vessels fishing inside an EEZ can go into the high seas to transfer their catch to other fishing vessels or reefers. This way the catch can be declared as having been caught in the high seas. This is a form of fish laundering that can enable vessels to fish in EEZs without paying correct fees to the coastal state or reporting their catch properly.

EEZ

HIGH SEAS



1

TRANSHIPMENT AT SEA
This facilitates the laundering of IUU fish.

INDEPENDENT OBSERVERS

Most tuna fisheries management organisations require only 5% of longline vessels to carry independent observers, though in reality the level of coverage can be lower.

LESS THAN **5%**

IUU FISHING

Illegal, unreported and unregulated fishing robs coastal states of their much needed income and compromises the sustainable management of stocks.

**ILLEGAL
UNREPORTED
UNREGULATED**

LARGEST FRESH TUNA MARKET

Japan consumes a whopping **80% OF THE FRESH TUNA** caught by longline fishing globally with USA and Korea as the second and the third largest markets.

MARKET RESPONSIBILITY

The major markets and the facilitators of the tuna longline industry the traders have a responsibility to ensure they only source tuna that comes from

**WELL MANAGED
LEGAL
TRACEABLE
SOURCES**

PROFIT FROM ILLEGAL FISHING

Globally illegal fishing is estimated to be worth as much as

**\$10 BILLION
USD ANNUALLY**

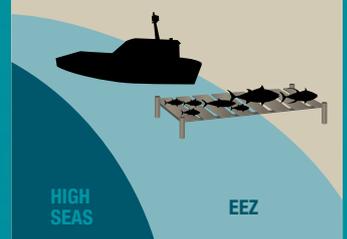
LOST EARNINGS

Estimates put lost earnings in the western and central Pacific from activities such as under-reporting or misreporting of catch sizes at anywhere from

**MILLIONS TO OVER
A BILLION USD**

THE 'GOOD' SCENARIO

- EEZ** Vessel fishes in an EEZ
- No targetting of sharks and bycatch mitigation
- Goes to port to offload
- Has observers



Source: References on page 42

FISH LAUNDERING: B

In another form of tuna laundering, fish caught illegally (for example, fish caught by a vessel without the correct license or quota) can be transferred to another fishing vessel that does have the correct paperwork and offloaded to a reefer or at port as the catch of that second vessel. This effectively launders the illegal fish into the legal tuna supply chain.

FISH LAUNDERING: C

Vessels can use the high seas as a refuge and cover for fishing illegally, without a license, in EEZs. When enforcement approaches, the offending vessel will quickly return to the high seas where it is legal to fish.

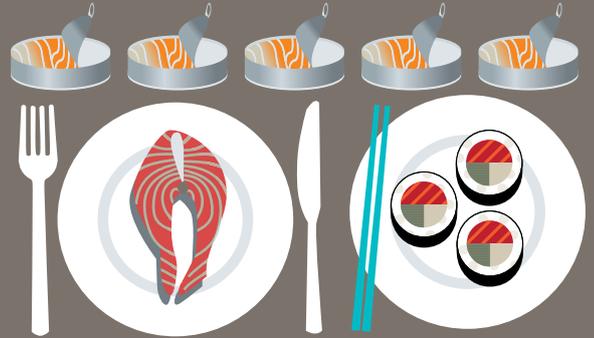


SALE OF FISH

The highest quality tuna is sold at auction in fish markets such as Tokyo's Tsukiji, but the majority is sold in business to business deals via tuna trading companies.



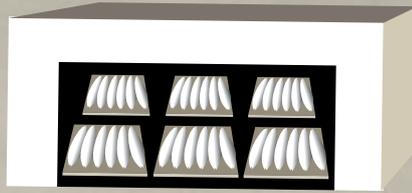
THE CONSUMER



2

REEFER

Reefer brings the fish to port to be sold



3

SALE OF FISH

From the port, fish is transported whole to markets around the world or sent for processing into tinned tuna, steaks or sashimi.



HQs OF EACH TRADER



SOLUTIONS

- Capacity reduction and sustainable catch limits
- Ban at-sea transshipments
- Proper monitoring and 100% observer coverage
- Close vulnerable areas such as the Pacific high seas enclaves to all fishing
- Traders to ensure legal, sustainable and traceable supplies of longline caught tuna

Case study 2 Koyu Maru 3

Koyu Maru 3, a Japanese flagged longliner, was documented hauling its longline by Greenpeace in October 2009.

The fishing activity of the Koyu Maru 3 was documented and information transmitted to the Cook Islands Ministry of Marine Resources and the Fisheries Agency of Japan. The response received from the Cook Islands authorities confirmed the position of the sighting was within their EEZ, and that the vessel Koyu Maru 3 did not have any fishing license or permission to fish within Cook Islands waters.

As investigations proceeded it was revealed that the Koyu Maru 3 and its sister vessel Koyu Maru 1 had frequently been illegally fishing in the Cook Islands and Tokelau waters for over a year. They

used the vicinity of the high seas as a means of staying close by and sneaking in and out of the EEZ while remaining undetected. As a consequence the owner of the vessels, World Tuna Co, in Japan settled the case with Cook Islands government for 1 million NZ\$ later in the year²³.

Not only are these vessels fishing illegally, there was also a report that they have mistreated their crews. The Koyu Maru sister vessels (1,2,3) and their crew of 50 Philippine workers sought assistance at the Fiji Mission to Seafarers earlier in 2008 after an 11 month mission at sea. The seamen had a three year contract and complaints included an extremely low monthly salary of only \$40 from which deductions for safety gear, food and toiletries were taken. There was no provision for payment for share of the catch. Other complaints were substandard food and mistreatment onboard²⁴.



Image The Japanese longliner Koyu Maru 3 is pictured in Cook Island waters.

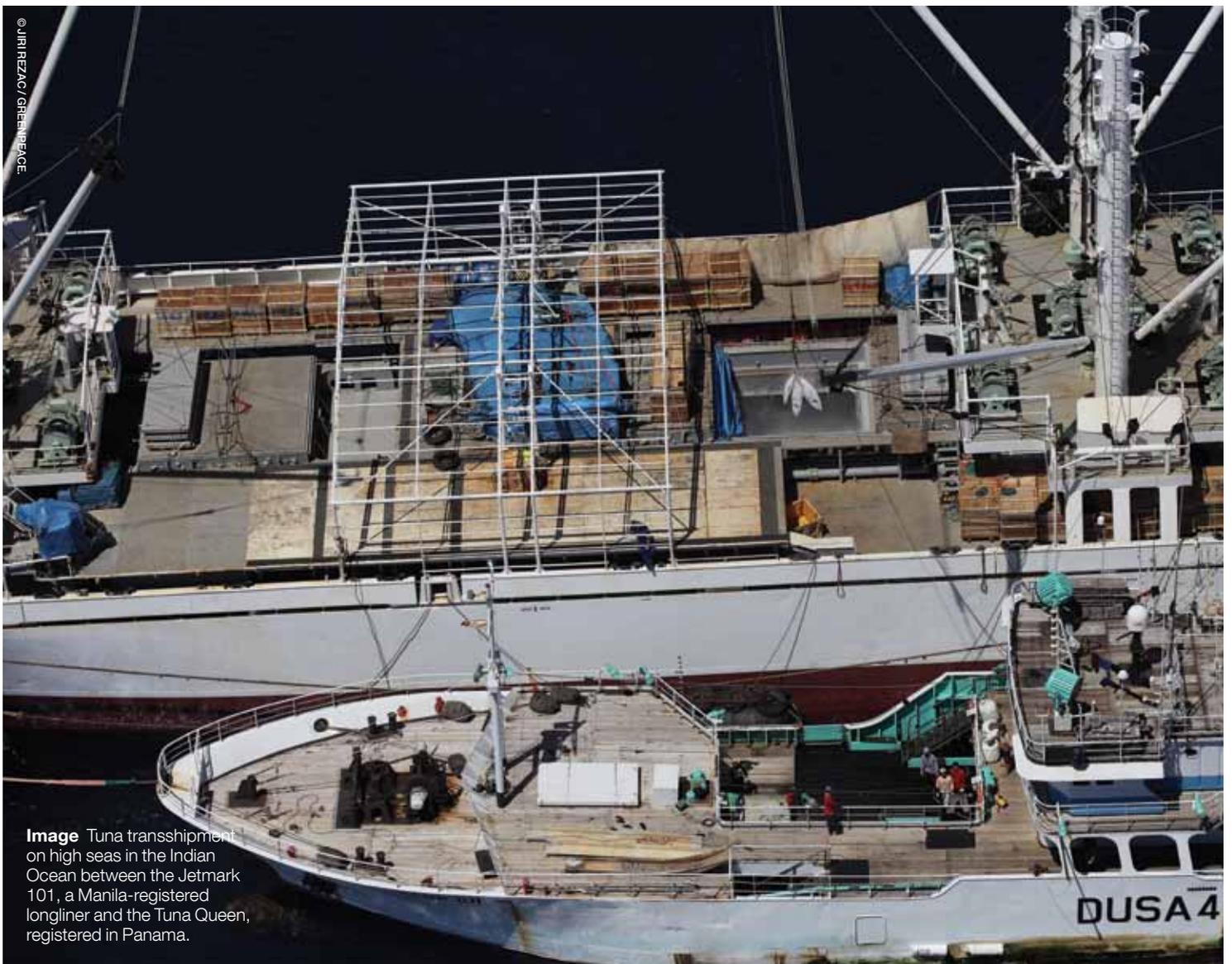


Image Tuna transshipment on high seas in the Indian Ocean between the Jetmark 101, a Manila-registered longliner and the Tuna Queen, registered in Panama.

Case study 3 Jetmark 101

Between 18 March and 15 May 2013 Greenpeace monitored transshipment just outside the northeastern-most tip of the Mauritian EEZ, in the Indian Ocean. From 25th to 28th April 2013 the Greenpeace ship Esperanza visited the spot, and while in the area was able to document first-hand three transshipments between the Panama-flagged reefer Tuna Queen²⁵ and three different small-scale longliners. One of the transshipments involved the Philippine-flagged and Taiwan-owned longliner Jetmark 101²⁶.

The captain of the Jetmark 101 reported that he was engaged in fishing for tuna and routinely transhipped to the Tuna Queen and other reefers. However, based on closer examination of the photographic and video evidence of the vessel taken from a helicopter it appeared that at the time the Jetmark 101 was not actually fishing as the line handling gear had been removed from the vessel and there were no hook storage barrels

visible. The deck was also clear and there were no hydraulic lines to be seen on the deck. Areas on deck where fishing gear would normally be positioned were replaced with rusty deck plates.

This absence of fishing gear on board the Jetmark 101 and the larger than usual amount of storage crates intended for her on board the Tuna Queen, suggests that the Jetmark 101 was instead acting as a mini reefer for other fishing vessels. By operating in this way, the Jetmark 101 could serve to ensure that fish caught in the EEZs of coastal states or by unauthorised vessels in the region, could be declared as its own catch and recorded by the Tuna Queen as legally caught, since the Jetmark 101 was at the time on the IOTC record of authorised vessels.

Although this case is inconclusive it perfectly illustrates the loophole and inherent weaknesses in the supply chain created by transshipments at sea where monitoring and control fall far short of the levels needed to detect and prevent IUU fishing activities.

Box 1 Flags of Convenience

According to the International Transport Workers Federation, a flag of convenience (FOC) ship is one that flies the flag of a country other than the country of ownership. The decision to “flag out” can be made for different reasons, including cheap registration fees, low or no taxes and freedom to use cheap labour³¹. In the case of fishing vessels, reasons to reflag include the possibility to fish over and above official quota assigned to individual nations, or to avoid domestic and international management regulations by using flags of countries which do not have the capacity and/or the will to control their activities (so called flags of non-compliance). In longline fisheries the use of FOCs is particularly common amongst Taiwanese-owned fishing vessels³². Flags commonly used include Vanuatu, Seychelles, Marshall Islands as well as Fiji and Philippines.

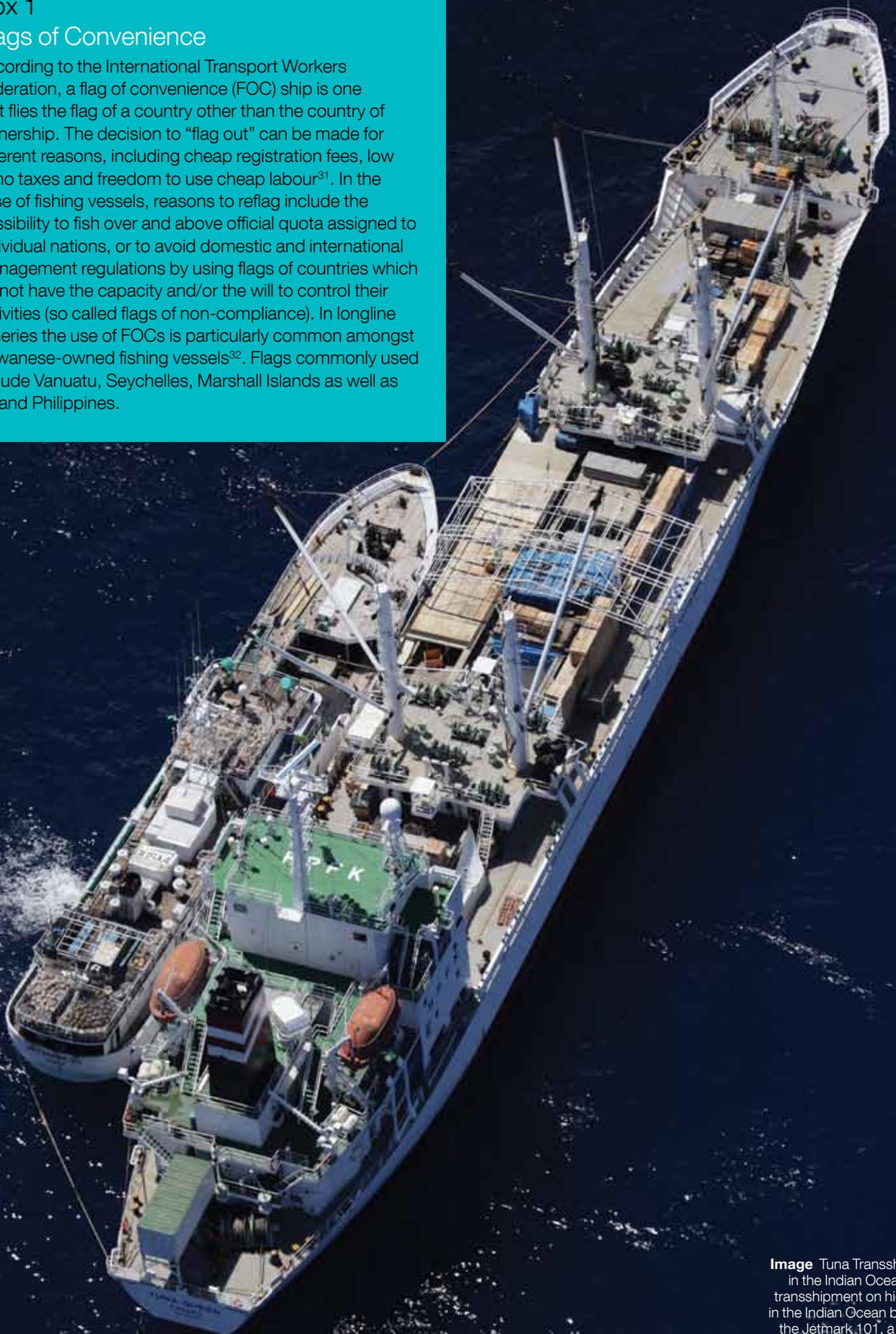


Image Tuna Transshipment in the Indian Ocean. Tuna transshipment on high seas in the Indian Ocean between the Jetmark 101, a Manila-registered longliner and the Tuna Queen, registered in Panama.

The highly concentrated nature of the tuna trading sector means that a large portion of profits are also concentrated in their hands, giving them considerable control over the tuna supply chain.



Image Fresh tuna at auction at the Tsukiji wholesale fish market (Japan), the largest fish market in the world.

#3

Tuna Traders

Missing link to sustainable longline fishing

Some of the biggest players in the global tuna business are not those who own the vessels and catch the fish, nor those whose main business is to process and sell tuna to retailers. They are in fact the tuna traders - companies that facilitate the sale of tuna from the fishing fleets to the processors and end markets, operating on a global scale but largely away from public scrutiny.

A small number of major players dominate this business. Their primary activity is buying and selling (or brokering sales of) tuna. This can take a number of forms, including whole frozen fish for canning, cooked loins, canned tuna and sashimi-grade tuna. Many of these companies also provide services to vessels, such as provision of carrier vessels or containers to transport catch and reefer vessels for transshipment at sea, bunkering (refuelling) at sea, sales of bait and other supplies, liaison with shipping agents, financing for vessel building, logistics, facilitating fishery access arrangements etc.

This dual function, as middleman and provider of vessel support services, means that the traders play a key role in the global tuna business model. This is certainly the case for tuna longliners, many of which remain at sea for very long periods (dependent on transshipment, refuelling and provisioning at sea). Many longliners are family-owned or are small companies (as is the case with much of the Taiwanese small-scale longline fleet) and reliant on the services of the traders in order to operate in distant water fisheries and sell their catch to major processing companies.

The nature of the traders' business model means that their profits are highly dependent on the volume of tuna traded. Any restrictions on catch or increased regulation of the longline fleets, that would increase the cost of fishing and/or reduce the volume of tuna available to trade, could negatively affect their business. The highly concentrated nature of the tuna trading sector, with just a handful of companies, that buy and sell the fish caught by hundreds of fishing companies and thousands of vessels, means that a large portion of profits are also concentrated in their hands giving them considerable control over the tuna supply chain.

It is difficult to get hold of figures to accurately compare the major traders involved in the tuna trade. An analysis by the Pacific Forum Fisheries Agency done in 2011³³ states that FCF, Tri Marine and Itochu are the "the big three" traders in the canned tuna supply chain. According to this study, FCF handles the largest amount of tuna and is by far the most prominent trader in the WCPO region. Tri Marine trades a slightly smaller quantity of tuna overall but has a stronger global presence (especially in the European market and other oceans). It also has a more vertically integrated business model - owning some of its own fishing vessels. Itochu trades the smallest volume of the big three (although tuna is only one small part of the company's overall operations) and operates almost exclusively in the Western Pacific.

Looking beyond canned tuna, Mitsubishi is a particularly important source of sashimi tuna imports into Japan, and is especially prominent in the bluefin tuna trade. Tri Marine and FCF were both founded in 1972, just one year after Mitsubishi bought stakes in what is now its major tuna-trading subsidiary Toyo Reizo. These four companies emerged as the dominant players in the 1990s and are now estimated to supply a significant proportion of the world's fresh and frozen tuna.

Overview of key global tuna traders and their operations

FCF:

Fong Cherng Fishery Co. Ltd (F.C.F) was founded in 1972 in Kaohsiung, the centre of the Taiwanese fishing industry, and is a privately owned company. They describe themselves as 'one of the largest marine products trading companies globally.'³⁴ Their primary function is as a tuna trader – and the company originally started out trading longline caught tuna (expanding into purse seine tuna in 1981)³⁵. In addition to buying and selling tuna, FCF also provide a range of services to fishing vessels, for which they work with a network of over 30 carrier vessels³⁶ and 20 bunker vessels³⁷.

As of March 2012, the company had a net worth of approximately NTD 8 billion (\$270.6 million), with annual sales of just under NTD 54 billion (\$ 1.86 billion) and net profit of more than NTD 1.25 billion (\$42.4 million)³⁸. As of March 2012, the total catch of the whole Taiwanese distant water fishing industry (all species) was estimated to be worth NTD 47 billion (\$1.6 billion)³⁹. By their own account they handle >600,000mt of tuna and >100,000mt of other fish annually⁴⁰. By comparison, the total annual tuna catch of the Taiwanese distant-water fishing industry (ie. Taiwanese flagged vessels) was 310,000mt as of March 2012⁴¹.

The fish is sourced from a network of 200-300 longliners, targeting albacore for North American markets, approximately 200 longliners that deliver to the sashimi market and more than 60 purse seine vessels⁴². These vessels operate in all oceans, throughout the year and they claim to supply over 100 processors and to be 'the major supplier to the majority of them.'⁴³

The company has a large network of subsidiaries, joint-ventures and offices around the globe – they list 12 office locations on their website⁴⁴ (the majority in the Asia-Pacific region) and a further 19 locations where they cooperate with and do business through third party companies⁴⁵. These include wholly or majority owned subsidiaries in Japan (FCN), Singapore (FCS) and China (FCC) and the South Seas Tuna Corporation – a joint-venture tuna cannery in Papua New Guinea (PNG). Their website also lists 25 fishing bases in the Pacific, Indian and Atlantic Oceans, where vessels can restock with bait, fuel, supplies, etc⁴⁶.

Tri Marine:

Tri Marine was founded in Singapore in 1972 as a tuna procurement company for an Italian government-owned group of companies. It was privatised in 1986 and is now headquartered in the US. They describe themselves as one of the 'largest tuna supply companies in the world.'⁴⁷

They are primarily a tuna supply company selling raw materials, cooked loins and finished products to tuna brands in all the major markets, and also provide support services, including logistics and financing⁴⁸.

They source tuna from a network of vessels, including 18 affiliated vessels active in the WCPO; 14 purse seiners and 3 pole and line. They also have supply contracts with other fishing companies. They work with approximately 10-12 reefer vessels to transport fish from catching hubs to processing plants.⁴⁹ According to their own figures, they handle over 400,000mt of tuna every year⁵⁰.

They work with a network of processing plants (some wholly or part-owned by Tri Marine) to supply the brands that buy from them – including in the Solomon Islands, Marshall Islands, China, Mauritius, Ecuador and Colombia.⁵¹ In 2010, Tri Marine purchased the former Chicken of the Sea processing plant in Pago Pago, American Samoa. This is now known as Samoa Tuna Processors Inc and is currently being refurbished.⁵² They have recently been involved in a joint venture to develop a tuna processing plant in PNG (Niugini Tuna Ltd) with RD Tuna of the Philippines and Fairwell Fishing Company of Taiwan.⁵³

On their website they list 21 operating locations, including companies in the Tri Marine Group and representative offices, including five in Latin America,

four in Asia and five in the Pacific.⁵⁴ Subsidiaries and joint-ventures include: Soltuna Ltd (processing plant) and National Fisheries Developments Ltd (fishing company) in the Solomon Islands as well as Thon Des Mascareignes processing facility in Mauritius. Their customers include European food giant Bolton (owner of the brands Saupiquet and Rio Mare amongst others) and other major tuna brands^{55,56}.

Itochu:

Itochu is one of Japan's largest *sōgō shōsha*, or general trading companies – engaged in trading and investment in Japan and overseas, with headquarters in Osaka. Its origins date back to 1858, when the company founder commenced operations as a travelling salesman of linen. The first store (selling drapery) was founded in Osaka in 1872.⁵⁷ Itochu has divisions dealing with textiles, machinery, metals and minerals, energy and chemicals, food, ICT, general products and realty⁵⁸. It has 115 overseas offices and a huge number of subsidiaries in Japan and worldwide.⁵⁹

Itochu Corporation was listed on the Tokyo Stock Exchange in 1950.⁶⁰ Whilst tuna is only one of a huge number of commodities that Itochu trades in, it is considered to be one of the biggest tuna trading companies globally. They deal in a variety of tuna products, including sashimi tuna, canned tuna, raw materials for canning and tuna-based pet foods; as well as other species, including shrimp, squid and octopus.⁶¹ Itochu also has a joint-venture tuna processing facility at Surabaya, Indonesia (P.T. Aneka Tuna Indonesia)⁶².

According to the 2011 study mentioned above⁶³ (information based largely on interviews conducted with Japanese industry representatives in 2006 and 2010), Itochu handles the smallest volume out of the big three tuna traders – an estimated 200,000mt annually at that time – and sources the majority of its tuna from the WCPO including from Indonesia and the Philippines. The company does not own tuna fishing vessels and charters space on carrier vessels to transport its product.⁶⁴

In the financial year finishing March 2013, Itochu had revenue of ¥4,579.8 billion (\$48.59 billion) and a gross trading profit of ¥915.9 billion (\$9.717 billion), however tuna sales will only have made up a small portion of this⁶⁵.

Mitsubishi:

Although often not mentioned alongside the 'big three' global tuna trading companies, due to its lesser role in supplying the canned tuna industry, Mitsubishi is an important player in the global tuna trade and particularly in Japan, the world's largest market for longline tuna. Mitsubishi is Japan's largest general trading company, or *sōgō shōsha* – it comprises a conglomeration of several hundred companies operating in a huge range of industries and services. Founded in 1954, Mitsubishi Corp has 30 offices in Japan and 195 overseas; 419 subsidiaries and 208 affiliates.⁶⁶

Toyo Reizo Co. Ltd (or Torei) is the major Mitsubishi company in the business of tuna trading⁶⁷ and is 81.83% owned by Mitsubishi⁶⁸. Founded in 1948 (although Mitsubishi has only had a stake in the company since 1971)⁶⁹, Torei trades and processes a wide range of seafood products, although sashimi-grade tuna is its main product.

Torei does not have any fishing vessels of its own and purchases and sells both ranched and wild-caught tuna from suppliers in a number of countries and also other companies within the Mitsubishi Group^{70,71}. Sales are primarily to supermarkets and other major retailers, such as restaurant chains, although some tuna is still sold through the traditional system of consumer wholesale markets and auction houses, such as Tokyo's Tsukiji market. In addition to supplying retailers, Torei markets tuna in Japan under the well-known brand Tuna Queen⁷².

Torei has 11 offices and three processing plants in Japan⁷³, including significant operations at the Japanese port of Shimizu – the number one fish-handling port in Japan, with the majority of that fish being tuna⁷⁴. These include subsidiary, Toyo Reizo Food Service Co. Ltd and at least two cold storage facilities. In addition, they have a tuna processing plant in Yokohama. Tuna is transported to Japan in reefer vessels, including those chartered by MRS – another company in the Mitsubishi Group (see case study 3). In 2012, Toyo Reizo had sales worth ¥165.2 billion (\$1.9 billion)⁷⁵.



Image Tuna on sale at the Tsukiji wholesale fish market (Japan), the largest fish market in the world.

Longline tuna fleets exist in many countries and their catch is distributed around the world to a large number of companies for sale as many and varied products.

#4

Unravelling the markets

Where is it caught and where is it sold?

The supply chains and markets for longline caught tuna are as large as they are complex. Longline tuna fleets exist in many countries and their catch is distributed around the world to a large number of companies for sale as many and varied products, ranging from tinned albacore in the United States to high grade sushi and sashimi in Japan. Longline caught tuna is supplied to markets globally and in many different forms although the method is more commonly associated with a higher quality catch and therefore supplies significantly more of the fresh fish needed for sushi, sashimi and premium quality fresh fillets and steak.

Some of the biggest longline fleets supply tuna to countries that are home to progressive businesses working towards sustainability standards which they apply to parts of their catching and processing sectors. However, this sustainable supply chain has not yet reached the longline sector that continues to fall behind best practice standards beginning to be implemented in the purse seine and other tuna fishing sectors.

Because of their involvement in catching and consuming large volumes of longline tuna, we have profiled three countries and regions that are strategically important to the global longline sector to illustrate the scale and complexity of the trade - the North American market: United States & Canada (major markets with some catching capacity), Korea and Japan (major catchers and markets).

North America: The United States and Canada

The United States is the world's largest market for canned tuna. Skipjack (sold as "light" tuna) is the most popular species in the American canned tuna market, but the US is also the world's largest consumer of canned albacore (sold as "white" tuna). It is this latter species that is relevant to this report, as the vast majority of albacore reaching the US market has been caught via longline operations, either in the South Pacific Ocean, South Atlantic Ocean or (increasingly) the Indian Ocean.

While canned tuna is primarily sold through the grocery retail industry in the US, it is also a major staple in the food service industry and at various quick-service and fast-casual restaurants, especially those offering made-to-order sandwiches (such as Subway, Quizno's, and similar brands.)

As the globe's primary market for canned albacore, the United States is both the largest obstacle to, and the biggest potential agent for change in this industry. The three largest US tuna brands – Bumble Bee, Starkist, and Chicken of the Sea – all offer a variety of canned (and pouch-sealed) albacore options, all of which are sourced from conventional longline operations. As such, US consumers do not presently have access to a responsibly sourced canned albacore product aside from boutique troll-caught options that command a significantly higher price.

While the Canadian canned tuna market is small in comparison to that of the US, major North American brands and retailers are present in the Canadian market, along with dozens of other national and international brands. Sales of canned tuna exceeded CDN\$200 million last year; with skipjack dominating the canned market representing over 2/3 of products sold. Skipjack products originate primarily from purse seine but some pole and line fisheries.

Yellowfin tuna is also sold as a “light meat” product, originating from purse seine, longline and pole and line fisheries.

The majority of the tuna caught by Canadian tuna vessels is destined for fresh markets. Some of the Pacific troll-caught albacore is used for canning. However, most tuna sold in Canada comes from distant waters and most tuna caught in Canadian waters is exported. While the total volume of albacore sold annually in Canada is much lower than skipjack, representing some 20 % of total canned tuna volume, albacore is the preferred tuna. Consumers have had access to more sustainable canned albacore options before light meat alternatives were available thanks to the Canadian troll albacore fishery and western U.S. fishery. For example, growing brands like Raincoast and Wild Planet that source troll-caught and pole and line albacore are now present in various large retail chains. Retailers such as Loblaw and Overweitea Food Group introduced an MSC certified troll or pole and line product line, and various small, local brands offer products mainly in stores or markets on the west coast. However, most albacore tuna found on the shelves still comes from destructive and poorly managed longline fisheries.

Major North American brand, Clover Leaf (owned by U.S. company Bumble Bee) markets various albacore products, all of which are longline-

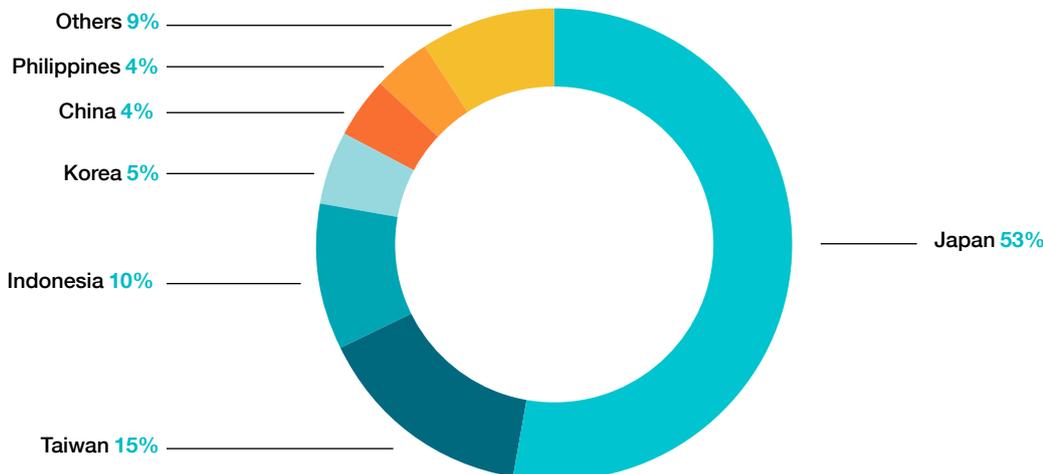
caught. Clover Leaf/Bumble Bee currently do not have plans to source alternatives. One of Clover Leaf’s competitors, Gold Seal, has committed to stop sourcing from destructive longline fisheries and switch to more sustainable fishing methods. For Canada’s biggest retailer, Loblaw, with a commitment to source MSC-certified products, a move to more sustainably-caught canned tuna may include the only MSC-certified longline product.

Japan

Japan is the world’s largest tuna consumer and in terms of fresh tuna, Japan is the major market country accounting for 80% of the global fresh tuna market, followed by USA (8%) and South Korea (4%)⁷⁶. Of the 375,000mt of tuna sold in Japan in 2011, about half (197,000mt) was caught by Japanese fishing vessels, while the other half (178,000mt) was imported (see Figure 1) (all figures from here onwards exclude skipjack).⁷⁷

In terms of species, bigeye and yellowfin are the most popular tuna species in the Japanese market, comprising 33.6% (126,000mt in 2011) and 34.4% (129,000mt) of the market respectively⁷⁸. Japan also consumes about 80% of the global catch of bluefin tuna (both endangered Atlantic bluefin, and heavily depleted Pacific bluefin), considered to be the centrepiece of sushi - the icon of Japanese seafood - and 98% of critically endangered southern bluefin

Tunas (exclude skipjack) supplied in Japan (2011 volume)



Source: Fisheries Agency Japan. 2013. About the international situation of tuna http://jfa.maff.go.jp/j/tuna/pdf/all_tuna.pdf [Accessed 24 October 2013]



Image A sushi chef places tuna sushi on the counter, within the Tsukiji wholesale fish market (Japan), the largest fish market in the world.

Case study 4 Tuna now a daily feast

The fresh tuna in Japan is sold in a variety of outlets, including traditional Japanese / sushi restaurants, modern countrywide chain restaurants using sushi trains (or conveyor belts), izakaya (or Japanese bar / taverns), and supermarkets. Tuna used to be mainly eaten for feasts during special celebratory days in Japan. However, as nationwide-chain restaurants and supermarkets drove up consumer demand for convenient affordable tuna, nowadays it can be purchased or consumed at an affordable price at basically all major supermarkets and nationwide seafood restaurant chains throughout the year.

Supermarkets, which supply 70% of home-consumed seafood, and chain restaurants, are demanding that wholesalers supply seafood at the same price, same quality and in the same quantity consistently throughout the year. As a result of

this small-profit-quick-return business model, in addition to the development of fisheries technology, efficient distribution routes and changes in consumer lifestyles, the patterns and trends of seafood consumption are changing dramatically, away from consuming near-shore-caught seasonal whole-fish, such as horse mackerel and sardines, to consuming more pre-cooked or raw filleted fish, such as tuna and salmon.

This small-profit-quick-return business prioritizes short-term profit over sustainability. The major supermarkets and nationwide chain restaurants procure seafood regardless of the stock status or level of environmental destruction caused by fishing activities. Ironically, the major supermarkets and restaurants that routinely claim they play a key role in protecting the traditional, delicious Japanese food culture for future generations are the ones that boost the overfishing and over-consumption.

Image Marking selling details with red paint on frozen tuna, at the Tuna auctions at the Tsukiji wholesale fish market (Japan).

Japan is the world's largest tuna consumer and is the major market country, making up 80% of the global fresh tuna market.

tuna as well. These three bluefin species between them make up 11.5% (43,000mt) of the tuna consumption in Japan. 20.5% (77,000mt) of the total consumption is albacore⁷⁹.

Of the tuna consumed in Japan, roughly 80% is fresh and eaten in the form of sushi / sashimi. The main fishing technique used to catch the sushi / sashimi tuna is longlining. Nets, which damage and degrade the meat, were not traditionally used as sushi / sashimi requires a good quality meat. For reasons of efficiency, longlining has been the main fishing method. However due to increases in the overall consumer demand for convenient, affordable tuna (see case study 4), purse seine caught tuna is also now distributed widely in the Japanese sushi / sashimi market.

Within the Japanese fleet, fifty five percent of vessels targeting tuna use longline, 24% use purse seine, and 16% use pole and line⁸⁰. Some 81% of tuna caught by Japanese vessels is from the Pacific Ocean, 12% is from the Atlantic Ocean, and 7% is from the Indian Ocean⁸¹.

South Korea

Whilst South Korea comes third in terms of market share for fresh tuna globally, its role as a tuna and longline fishing nation is equally, if not even more, important than its role as a consumer. The Korean tuna fishing industry catches an average 40,000 ~45,000mt every year (41,011mt in 2011) and 60% of this catch (an average of 25,000mt) is exported

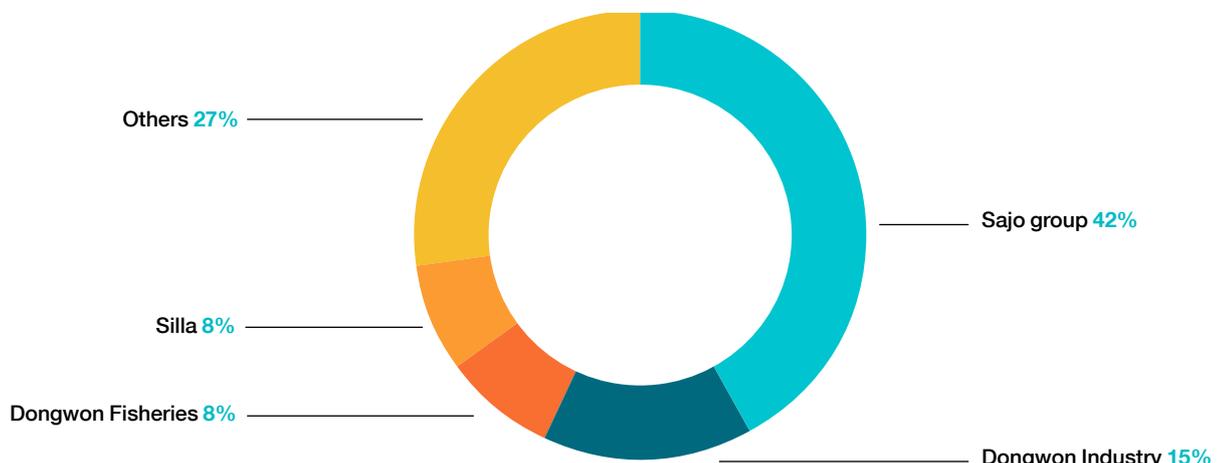
to other countries (22,780mt in 2011) leaving 40% for domestic consumption. According to the KOFA yearbook, almost 90% or around 20,322mt of longline tuna exports in 2011 were destined for Japan. As a high value product, longline tuna is an important source of income for the industry as the total value of these exports accounts for almost 40% of the total value of the distant water fishery catch⁸².

South Korea's main fishing ground is the WCPO where it has the fourth largest catch with 195 longliners belonging to 22 companies registered to operate in the area⁸³(see figure 2).

The size of the sashimi market in Korea was estimated at 15,000 – 20,000mt in 2010⁸⁴ and in 2011 this was valued at approximately \$252 million⁸⁵.

The distribution of sashimi tuna in the national market by Sajo and Dongwon, two of the largest fishing companies, consists of three channels. Firstly through intermediaries (big agencies, special contract dealers, fish stores in several fish markets, etc.); secondly through the department stores or large retail chains, such as E-mart and Homeplus, etc.; and finally using their own distribution channels and franchises. Sajo's franchise 'Sajo Sashimi Tuna'⁸⁷ with more than 50 stores supplies over 65% of sashimi supply to the domestic market. 'Dongwon Tuna' franchise⁸⁸ has more than 99 stores.

Catch share of Korean longline tuna by company in 2010



Source: Sajo business report submitted to the Financial Supervisory Service, Nov 14 2011⁸⁶

Image A blue shark (*Prionace glauca*) is pulled onboard the Japanese longliner, Fukuseki Maru No 07 from the deep waters in the Mozambique Channel.

Sharks make up as much as 50% of the catch in some longline fisheries.

#5

Human and Marine Collateral damage

As hundreds of thousands of kilometres of lines carrying many millions of baited hooks are set every day in the planet's oceans with very little regulation, it is not surprising that longline fishing has a devastating effect on a range of marine species other than tuna. Sharks, turtles and seabirds, many of them threatened species, are collateral damage to the longline fisheries. In a FAO global assessment of bycatch, it was discovered that longline fisheries for tuna and related species have an estimated discard rate of 22%. For some fleets (long range, mostly Asian, tuna longline vessels) the figure is thought to be as high as 40%⁸⁹. Some fisheries have discard rates that are even higher - the Canadian swordfish longline fishery in the NW Atlantic discards more than one blue shark for every swordfish landed.⁹⁰

Shark Finning: A profitable sideline

The terminology that divides fishing catches into target, incidental and discards – the latter two referred to as bycatch – is in many cases an artificial distinction for fisheries and fishers aiming to make maximum profits from whatever comes up on their lines. This is particularly the case for sharks, which are commonly considered a bycatch of tuna fisheries.

Sharks supply a lucrative international trade in shark fins and other shark products. As long as shark finning (the process of removing a shark's fins, sometimes while the animal is still alive, and dumping the body overboard) remains

legal, or bans are not enforced, the small space required to store fins means they may make up an economically important part of the catch with little or no impact on reducing hold space for the nominal "target" species such as tunas. Coupled with the widespread use of techniques that increase shark "bycatch" such as wire leaders, the use of J hooks rather than circle hooks, use of squid as bait and setting techniques such as short lines beneath buoys, it becomes clear that catching sharks may not be such an accident after all.

Sharks make up as much as 50% of the catch in some longline fisheries^{91, 92, 93, 94} but this can be much higher. Examples include the Hawaii swordfish fishery (until the use of squid as bait was banned)⁹⁵ and the New Zealand mixed tuna fishery, where blue sharks have accounted for more of the catch than the combined total of all tuna species⁹⁶.

Many of the sharks caught in longline fisheries are still alive when brought to the vessel, so in addition to avoiding the use of methods mentioned above, decreasing the soak time (the period between setting and retrieving lines) may also increase the proportion of sharks that can be released relatively unharmed⁹⁷. Crew payments structures or profit sharing arrangements may also encourage targeting of supposedly non-target species⁹⁸. Some fishers also blame sharks for loss of fishing gear or wasted time in handling them, adding a further incentive to kill any sharks caught, even if the majority of the animal will ultimately be dumped and wasted.

Many species of turtles are also caught in longline gear, and there is particular concern over bycatch in pelagic longline fisheries. In a global review in 2003 it was estimated that approximately 230,000 loggerhead turtles and 50,000 leatherbacks were incidentally caught each year by longlines⁹⁹.

It is estimated that at least 160,000 (and potentially in excess of 320,000) seabirds are killed in longline fisheries worldwide every year. Most commonly killed are albatross, petrel and shearwater species. The Japanese North Pacific tuna longline fishery and southern bluefin tuna combined account for the second highest seabird mortality among the fleets assessed¹⁰⁰.

Sashimi Slaves

Poor regulation and standards in the global tuna fishing industry not only impact tuna stocks and other marine life but also have serious consequences for the large numbers of fishermen in the fleet who often have to work in dangerous and unprotected environments. The conditions on distant water longline vessels that catch tuna and other species can be notoriously bad.

Conditions on fishing vessels are amongst the worst in the world, with reports of violence against crew members (as well as observers), dire working and living conditions, low or withheld pay and, in extreme cases, crew-members who have been taken and kept on board because they are the victims of human trafficking and modern-day slavery¹⁰¹. The very nature of longline tuna fisheries, often operating far from their country of origin and far out at sea, creates opportunities for the routine abuse of employees away from public scrutiny or regulation. Longliners are often relatively small vessels with low or no observer coverage, can stay at sea for months or even years at a time by transshipping catches and receiving fuel and supplies from reefers rather than in port. This effectively results in a captive workforce with little oversight, recourse or even ability for crew to escape from exploitive or abusive situations.

A rapidly growing body of evidence is now bringing to light some of the worst examples of poor practice and abuse in the work place.¹⁰² It should be noted that vessels flying flags of convenience, a practice common in longline fishing as described earlier (see box 1), are particularly prone to IUU fishing and with it to crew abuse and labour issues¹⁰³.

Evidence of a wide range of serious issues and abuses connected to IUU fishing and poorly regulated and controlled distant water fleets is available, including:^{104 105 106 107 108}

- Unsafe and/or inhumane working conditions
- Poor living conditions
- Meagre food and water rations, and of poor quality
- Intimidation
- Coercion
- Physical Abuse
- Long shifts with no or inadequate breaks
- Forced permanence at sea for many months and even years
- Issues relating to pay (low, withheld or simply not paid)
- Beatings and violent physical assault
- Blacklisting
- Denied medical care
- Imprisonment
- Abandonment
- Rape
- Murder

Whereas some workers are 'just' ill-treated and abused while they are on the job or until they flee the vessel, in other cases the working conditions endured by crew members meet the International Labour Organisation's (ILO) definitions of forced labour¹⁰⁹. There is growing evidence that many such crew members have been the victims of human-trafficking¹¹⁰.

In tuna longline fisheries the ship's captain and fishing master are often either from the flag state or, in the case of FOC vessels, nationals of the beneficial owner. The fishing crews most often originate from low wage regions such as Africa (for EU fleets) and South East Asia (for all fleets). Vietnam, Indonesia, Philippines, Laos, Cambodia and Burma provide many longline fishing crew for the most problematic, high seas small-scale longline fleets, where conditions are generally shown to be some of the worst.

The crews are often recruited through manning agencies, conditions of employment and problems associated with contracts and payments seem to vary between different agents making them also, together with the vessel owners and operators, responsible for the abuses listed. The salaries of crew members at sea can be as little as \$40-\$200 per month with provisions for the crew having to pay for their safety gear, toiletries and food out of that salary as well^{111 112}.

Case study 5

Hsieh Ta¹¹³

In September 2013 it was reported that four Vietnamese sailors had escaped from a Taiwanese tuna longliner having claimed to have suffered serious mistreatment on board. The story was reported widely across fishing industry trade media. The four crew members were reported to have fled from the Hsieh Ta vessel, owned by Hong Yuan Fishery, during an operation in which it was towing a broken down ship. A tugboat rescued them. The tuna longliner is officially listed under both the WCPFC and the IATTC.

One of the escaped crew members, 22 year old Tran Van Dung, said: “The Taiwanese captain, the engineer and two other men repeatedly beat

us for no reason with any object in their hands like a hammer or a wrench.”. He added: “The most painful time was when the captain and engineer beat and jumped on me until my nose bled and I lost consciousness. We had to suffer, fearing they would throw us into the sea.”



Image Four sleeping crew members of the docked Chinese longliner Fu Yuan Yu 052.

Case study 6

Tunago 61¹¹⁴

Pago Pago, American Samoa, is a tuna port that sees a lot of longline activity and occasionally crew members jumping ship. In 2005, six Chinese fishers fled the Vanuatu-flagged but Taiwanese-owned tuna longline vessel Tunago 61, hiding in the mountains to avoid recapture.

They eventually sought refuge in the Pago Pago Seafarers Centre, where they gave eyewitness accounts of the extreme physical abuse suffered by crew members on board the vessel. This included beatings ‘sporadically and systematically every day’ and death threats from the captain, who told them that he carried a gun and could easily write them off as having been swept overboard.

One crew member asked for leave from the boat and as a result was beaten with an iron rod, sustaining serious head injuries, and was locked up in the bow for three days without food or water. For an offence as simple as chatting with a colleague, another crew member was grabbed

by the hair and repeatedly punched in the face then beaten with a thick wooden rod on his thigh, stomach and back. Another crew member was attacked for failing to properly secure bait to all of the hooks, for which he was reportedly punched in the face and then kicked in the head once he had fallen to the deck.



Image Crew members of the Taiwanese longliner Ho Tsai Fa 18 pull up a shark.

Image Fresh tuna at auction at the Tsukiji wholesale fish market, the largest fish market in the world.



Long term sustainability in the tuna longline sector must include all players, from fishing fleets down to markets and end consumers.

#6

Conclusions and Recommendations

The world's tuna longline fleets remain largely outside of what is considered precautionary and ecosystem-based management, as mandated by the UN Fish Stocks Agreement for highly migratory fish stocks such as tunas, and other species caught by these fleets. Not only are the flag States and RFMOs failing to limit vessel numbers and catches to long-term sustainable and equitable levels, but they are failing to collect adequate data on the fishing activities of these fleets to ensure they comply with the relevant rules, whether RFMOs' or coastal states' in whose waters they operate.

Longline fishing is out of control, not only decimating the target and bycatch species they hook, but also often depriving coastal communities of their livelihoods as well as committing terrible abuses against their crews. Long-term sustainability in the tuna longline sector must include all players, beginning with the fishing fleets all the way through to the markets and end consumers. Regional fisheries management organisations, coastal states, traders and consumers all need to play their part to achieve this.

Traders to assume their sustainability responsibilities

The global tuna longline fishing sector is large and diverse with the majority of operations being conducted by smaller companies, with the traders acting as middlemen (or the enablers who keep these fleets afloat). As such they have the responsibility to become gatekeepers of sustainability and ensure that they only operate and trade with vessels and companies that fulfil transparent environmental and social sustainability criteria.

Their responsibility should include, where necessary, helping individual fleets to transform to more sustainable and equitable practices. Only through getting these larger players to act will it be possible to bring the more fragmented fishing sector under control. Retailers and restaurants also need to work directly with the traders and brands to ensure necessary traceability and sustainability standards throughout the supply chain, as well as exerting pressure on both coastal and flag states to improve management at national, regional and RFMO level.

Greenpeace International is calling for the following sustainability and equity standards to be implemented without delay by the key traders, market players and fishing operators active in the longline tuna sector:

- Fish legally and not to trade with vessels or companies on the Greenpeace IUU fishing blacklist (www.blacklist.greenpeace.org).
- Ensure all information related to the fishing operation required by the relevant regulatory bodies is reported in an accurate and timely manner.
- Not to fish, source or trade any tuna caught in any protected area including the Pacific high seas pockets (see Map 1).
- Not to conduct any at-sea transshipment or source any tuna from vessels where at-sea transshipments have taken place.
- Not to use, or source any tuna from vessels that use shark-targeting methods, including wire tracers, shark specific bait or use harpoons and other methods to catch rays.
- Obtain third party verified chain of custody certification for all longline operations.
- Adopt circle hooks and other best practice mitigation for bycatch.
- Only operate or source from vessels where 100% independent human or electronic catch monitoring is taking place.
- Not to intentionally kill or land any critically endangered or endangered marine animals including sharks, rays, cetaceans and turtles, or any other species for which targeting and/or landing is prohibited, and to report any accidental catches of such animals. Any such species caught should be released alive.¹¹⁵
- Considering overcapacity in the world's fishing fleets, commit to promoting a reduction in fishing capacity in tuna fisheries commensurate with precautionary fishing limits by not investing in new purse seine/longline fishing capacity [vessels] and to not trade with companies that are actively adding new purse seine and longline capacity/vessels.
- Ensure all company operations meet ILO standards for fair treatment of labour, and that seafarers are treated according to international best practice by publically calling on your government to ratify the Maritime Labour Convention.

RFMOs to strictly regulate longline fisheries

The track record of RFMOs' management and control of longline fleets is appalling. Prohibiting entry of new vessels by industrialised nations as well as emerging economic powers while banning all at-sea transshipments are essential first steps to prevent the situation getting significantly worse. Operators and flag states also need to ensure that accurate data and information on catches and fleets finally become available for managers and science providers.

Sustainable management of these fleets' activities needs to start with the accurate assessment of resources as well as of active fishing capacity. Only capacity limits in line with precautionary and ecosystem-based limits, and target reference points for all tuna stocks, can prevent IUU fishing and allow fleets to be environmentally and socially sustainable and economically viable without subsidies.

The necessary capacity reduction programmes must accommodate the rights and needs of developing coastal states and ensure the transition of the tuna industry, including the longline sector. The entire chain of production needs to be environmentally sustainable, socially responsible as well as economically viable. Such a transformation would be based on a set of transparent and equitable criteria, namely:

- **Selectivity:** Fishing vessels employing gear and fishing patterns with low bycatch should be given priority access to the available resources.
- **History of compliance:** Past compliance with applicable rules, including quality of data provided by fishers as well as compliance with CCMs and national regulations should be considered when granting access to a fishery.
- **Socio economic benefits:** Vessels that bring direct income and investment to the region, derived from their fishing operations, should receive priority access.
- **Employment and working conditions:** Fishing vessels that provide more and better employment conditions, as long as they are also less damaging for the environment, should be given priority access. Working conditions should comply with relevant international standards, notably the 2007 ILO Work in Fishing Convention.
- **Energy consumption:** Vessels consuming less energy per tonne of fish caught should be given priority access as long as they also meet other environmental and social criteria.
- **Quality of product:** Vessel types providing the best quality of fish for human consumption should be given priority access.

The lack of MCSE in some areas such as the high seas represents a loophole that facilitates IUU fishing activities. It is therefore necessary to ensure that RFMOs close the most vulnerable and strategic areas to all fishing such as the Pacific high seas enclaves (see Map 1) and any other areas identified as IUU hotspots.

RFMOs should also proceed to make the use of circle hooks compulsory, ensure state of the art bycatch mitigation methods for seabirds and other species are agreed and implemented, and that targeting of shark species is prohibited in tuna fisheries by banning the use of wire tracers and shark specific bait as well as the landing of vulnerable and endangered species. Ensuring fair wages for the crews will help to eliminate the incentive to engage in shark fishing and finning for extra income.

In addition to the urgent need to ban at-sea transshipment for the longline sector, either human or well functioning, tested and tamper-free electronic observer coverage should be made compulsory on all vessels without delay at RMFO level. Without this the necessary transparency and traceability to ensure sustainable fishing practices cannot be verified and the requirements for sustainable tuna in the market place cannot be met. RFMOs should also impose the continuous use of tamper free satellite tracking Vessel Monitoring System (VMS), Automatic Identification System (AIS) and a unique vessel identifier such as the IMO number.

Coastal States to strengthen local legislation

Whilst it will inevitably take some years for RFMOs to adequately address issues with longline fisheries, tuna rich coastal states, acting unilaterally or regionally, will in many cases be able to take the lead in improving longline fishing standards in their waters.

By introducing legislation to reduce overcapacity in their EEZs and ensuring vessels are not allowed to exploit high seas fishing loopholes to evade monitoring and reporting, banning at sea transshipments, requiring observers, and prohibiting targeting and finning of sharks and imposing bycatch mitigations, they can precede RFMO legislation, as is the case for the Parties to the Nauru Agreement (in the WCPFC) with regards to better management of the region's purse seine fisheries¹¹⁶.

Coastal states should grant access to their EEZs according to the environmental and social criteria described above in order to ensure environmental sustainability as a prerequisite to achieving socio-economic benefits.

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References for Infographics

Infographic 1: Complex global supply chain

Over 5000 longline vessels: The most recent estimate from WCPFC is that there have been between 3000 and 4000 longline vessels operating in the convention area in 2006-2012 (see <http://www.wcpfc.int/node/3561> p.22); there were an estimated 2,200 longline vessels operating in the IOTC fishery in 2009 (see http://acpfish2-eu.org/uploads/projects/id31/Final%20Technical%20Report%20r_Part3.pdf p.13)

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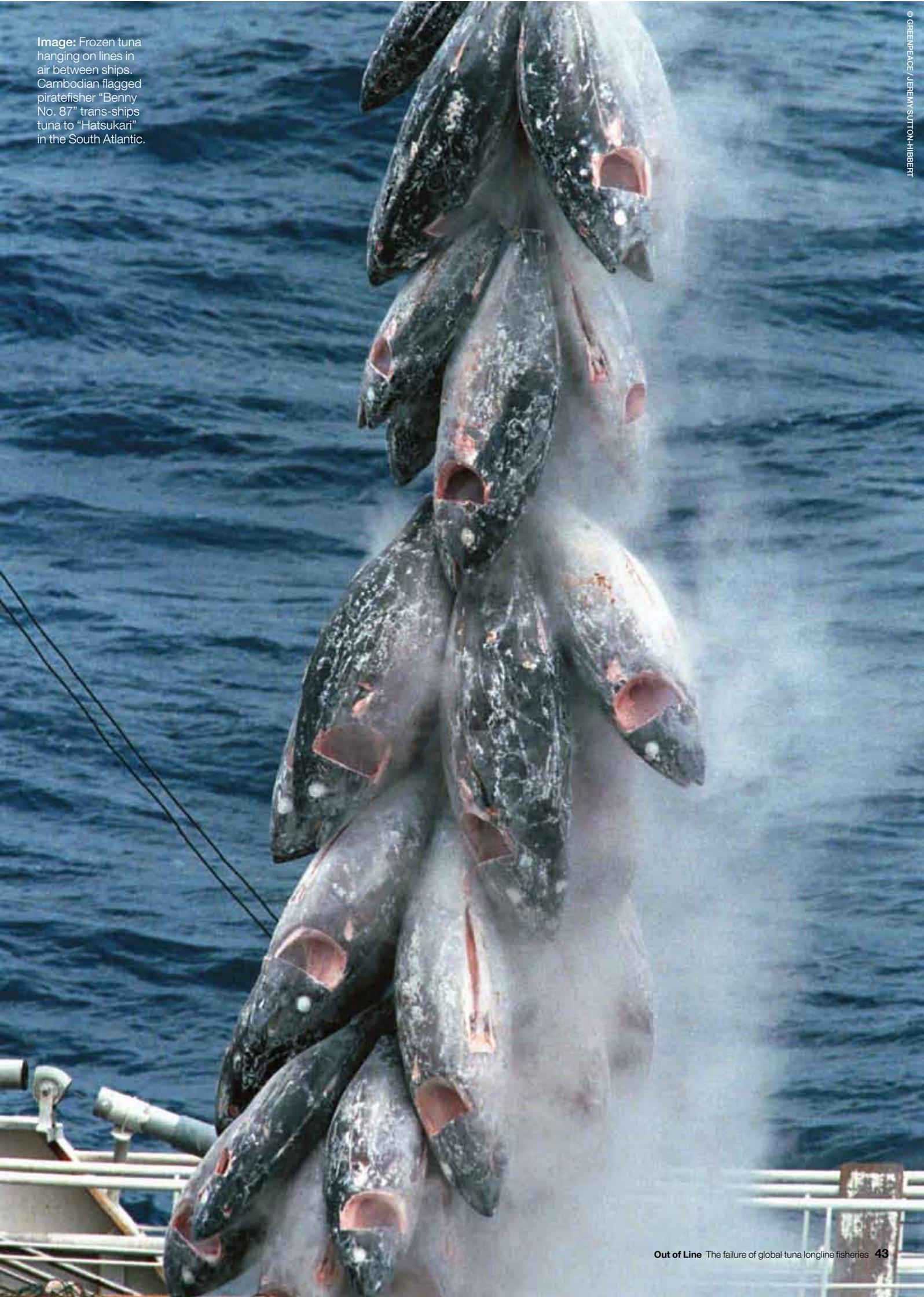
Infographic 2: Longliner in Operation

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Image: Frozen tuna hanging on lines in air between ships. Cambodian flagged piratefisher "Benny No. 87" trans-ships tuna to "Hatsukari" in the South Atlantic.



GREENPEACE

Greenpeace International
Ottho Heldringstraat 5
1066 AZ Amsterdam
The Netherlands

[greenpeace.org](https://www.greenpeace.org)

