

Turn The Tide

**Human Rights Abuses and
Illegal Fishing in Thailand's
Overseas Fishing Industry**

Unaltered images of workers featured in this report are not intended to represent victims of trafficking or exploitation. Greenpeace has taken steps to protect the identity of victims, survivors and confidential informants where appropriate.

Cover

A security guard watches over Kor Navamongkolchai 1 in the port of Ranong. Greenpeace investigations linked this tuna gillnetter to both human trafficking and illegal, unreported and unregulated fishing (IUU) fishing in the Indian Ocean.

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A fisherman repairs a Thai purse seine in Ranong, southern Thailand.

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01

Executive Summary

Greenpeace's 12-month long investigation exposes the activities of Thailand's rogue overseas fishing fleets, the companies behind them and their supply chain connections to export markets.

Thailand is the world's fourth largest seafood exporter, earning the country annual revenues of over USD 6.5 billion according to recent figures.¹ In the last two years, Thailand's overseas fishing industry has been put under the spotlight as a stream of hard-hitting reports exposed the shocking human rights abuses linked to supply chains of major global seafood producers.^{2/3} At the same time, the space in which unscrupulous Thai companies were able to operate freely was rapidly shrinking as Southeast Asian governments, including Thailand, took action against human trafficking and Illegal, Unreported and Unregulated (IUU) fishing. Drawing on a 12-month long investigation, this report details the last fishing frenzy made possible by the practice of transshipments at sea of Thailand's rogue ghost fleets, before new regulations affected a temporary stoppage in distant water fishing from January to July 2016.

Turn the Tide outlines Greenpeace Southeast Asia's investigations into IUU fishing, trafficking and other rights abuses – including fatalities resulting from negligence – aboard Thai distant water fishing vessels operating in the Indian Ocean. Research and analysis into fleet movements between 2014 and 2016 demonstrates how Thai overseas vessels fleeing crackdowns in Indonesia and Papua New Guinea arrived in an area of the Indian Ocean called the Saya de Malha Bank in the final half of 2015.



Port workers unload fish from a vessel docked at the public fishing port in Ranong, southern Thailand.

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Purse seiner is docked at a maintenance area in Ranong, southern Thailand, to undertake repairs.

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In the Bank, the Thai distant water fleet continued to operate in much the same way that had brought it to the attention of authorities over the last few years: taking advantage of under-regulated fisheries; deploying catastrophically unsustainable fishing methods in fragile marine ecosystems; crewing vessels with victims of trafficking and forced labour; offering working conditions that resulted in outbreaks of fatal diseases largely wiped out since the 19th Century; and fishing and transshipping catches illegally and without authorisation.

Many of these shocking environmental and labour abuses are made possible by transshipments at sea using large refrigerated vessels or “reefers”, which allows fishing vessels to stay for indefinite periods of time in the ocean away from prying eyes and regulation. From October 2015, Greenpeace monitored the activity of various reefers landing fish in Thailand from the Saya de Malha Bank. Over the next three months, investigators tracked shipments of seafood coming off different reefers at private ports being transported to facilities across Samut Sakhon, Thailand’s seafood epicentre. Greenpeace investigations uncovered that as of September 2016, following a temporary stoppage in reefer-assisted distant water fishing, seafood from the Saya de Malha Bank continued to flow into the supply chains of major Thai companies producing for global export markets.

Turn the Tide uncovers for the first time some of the Thai companies linked to the problems overseas, epitomised by islands such as Benjina featured in the shocking Associated Press investigation in March 2015.⁴ The report finds that many of these companies, in addition to operating in multiple trafficking and IUU fishing hotspots of the last few years, are connected through ownership and by family to significant interests further down the seafood supply chain as well as influential positions in industry and occasionally politics. After years of dirty fishing across Southeast Asia and beyond, some of the powerful “Big Fish” companies that dominate Thailand’s overseas sector have eroded all trust in their willingness to operate modern, sustainable and ethical businesses.

Now, as unregulated Thai overseas fishing vessels have been allowed back into the oceans to continue plundering the Saya de Malha Bank and new access agreements are negotiated with countries like Fiji, Greenpeace is calling on all stakeholders to act.⁵ Thai and foreign governments, regulators, fishing companies, industry associations, seafood buyers and consumers must now join together to turn the tide and secure overseas fisheries which are sustainable and ethical for all.

Greater control, including prioritising efforts to eliminate risky practices such as transshipment at sea, must be exerted over distant water fishing fleets. Inspection frameworks and the capacity of inspectors tasked with enforcing fisheries and labour regulations should be improved. Mechanisms for transparency and traceability must be more rigorously implemented to identify the origin of products and hold sub-standard operators to account. Anything less invites a return to the bad old habits adopted by some of the unscrupulous, exploitative and destructive operators in Thailand’s distant water fishing sector.

02

Introduction

In March 2015, the Associated Press (AP) released the results of a year-long investigation into systematic and widespread human rights abuses aboard Thai fishing vessels operating in Indonesian waters.⁶ The shockwaves from this exposé – which have seen the repatriation of thousands and tainted the brands of some of the world’s largest seafood producers continue to unfold. At the heart of this globe-spanning tragedy lies the often callous and illegal activities of companies within Thailand’s distant water fishing sector. The March 2015 AP report had been released after months of rapid and effective reform of fisheries control in Indonesia, under the new administration of President Joko Widodo from October 2014. It was at this earlier stage that it had started to become clear to Thailand’s overseas operators that Indonesia – the sector’s mainstay for decades – was off limits.

In December 2015, following the enactment of legislation targeting overseas vessels, Thailand’s military government used its new powers to finally exercise greater control over the country’s distant water fishing fleets.⁷ Various new measures necessitated the return of 74 Thai boats fishing in the Saya de Malha Bank, including the introduction of mandatory fisheries observers and a January 2016 deadline for official inspections to ensure compliance with new regulations.⁸ Along with what the Government labelled a six-month “ban” on transshipment at sea outside of Thai waters, the new controls resulted in – perhaps for the first time ever – the visible operations of all active Thai-owned reefers coming to a stop between February and July 2016.



Burmese workers sort freshly-landed fish at the public fishing port in Ranong, southern Thailand.

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A Burmese worker waits for the next shipment of fish to arrive at the public fishing port in Ranong, southern Thailand.

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Greenpeace's investigation asked what happened to Thailand's overseas fishing boats after the AP exposé in Indonesia in the first half of 2015 and explores what the reforms towards the end of the same year mean for the distant water fishing industry today. The work, conducted from September 2015 to September 2016, included a variety of methods from vessel monitoring and historical track analysis and interviews with fishers and trafficking survivors to observations of official inspections and sifting through incorporation documents and commercial records. Supply chain documentation, through desk research, the physical tracking of shipments of seafood and different undercover methods, was a primary component of the overall research.

In *Turn the Tide*, Greenpeace outlines how human rights abuses, including forced labour and fatalities arising from negligence continue to stalk the decks of Thai overseas fishing boats (Chapters 3 and 4) and examines the Government's response to some of these issues (Chapter 5). It analyses the recent history of Thailand's distant water fishing fleets and their involvement in scandals from the waters off Northern Australia to the eastern Indian Ocean (Chapters 7, 8 and 9). For the first time, Greenpeace sheds light on some of the companies behind Thailand's distant water fishing industry (Chapter 10). Finally, we summarise findings from our investigation into the routes seafood caught by these vessels took through national and global supply chains and associated problems with seafood traceability systems (Chapter 11).

Greenpeace's year-long investigation into Thailand's overseas fishing industry reveals that the crackdowns on illegal fishing and human trafficking in Indonesia, which continued throughout 2015, resulted in an exodus of high-risk Thai vessels to Papua New Guinea's southern Dog Leg region – an area situated at the maritime boundaries of Australia and Indonesia.⁹ Evidence gathered by Greenpeace indicates that, following enforcement efforts and increased controls from the Papua New Guinean government, Thai overseas fishing operations shifted again in August 2015.

Thai vessels moved from Southeast Asian waters to the Saya de Malha Bank, an area in the Indian Ocean over 2,000 km off mainland east Africa – and more than 7,000 km from their home ports in central Thailand. This move to the Saya de Malha Bank reflects the sector's long-standing practice of seeking out and taking advantage of poorly regulated fisheries and areas with weak enforcement.¹⁰ In migrating to the Bank, the Thai fleet – largely consisting of trawlers – had shifted to an area essentially devoid of effective management and controls on bottom fishing.

Greenpeace analysed almost 200,000 Automatic Identification System (AIS) broadcasts and positioning data stretching back to 1999 for 28 Thai-operated reefers to determine their historical movements. Analysts compared numerous fishing vessel licensing lists from the Thai, Indonesian and Papua New Guinean government agencies, exploring ownership structures and ship naming conventions in order to determine whether movements in fishing capacity ran parallel to movements in refrigerated cargo capacity. Our findings indicate that, over the last two years, Thailand's overseas fishing fleets have repeatedly shifted their operations in response to improvements in monitoring, control, surveillance and enforcement (MCSE) efforts by flag, coastal and port states, moving to areas with weaker MCSE.

Further Greenpeace research revealed how the fishing companies are equally as complex as their operations. In-depth analysis of company ownership structures and the interrelations between individuals and families operating distant water fishing enterprises yielded links to a multitude of influential industrial and political interests. Several first-tier enterprises in seafood supply chains identified through Greenpeace, some of them producing for export, were connected to vessel operators through family business groupings. This research highlights how a relatively small group of actors have sufficient power to progress or obstruct efforts to reform the sector and eliminate dirty fishing practices, IUU fishing and human rights abuses from Thai seafood supply chains. Ensuring that unscrupulous operators that have violated laws are held accountable is a vital part of enforcement efforts. As Thailand's fisheries enforcement framework is underpinned by national inspection efforts, Greenpeace presents observations on inspections in Chapter 5.¹¹

Greenpeace investigations into scandals aboard fishing vessels operating in the Saya de Malha Bank revealed that trafficking, exploitation, abuse, negligence and IUU fishing have remained central to the operations of some Thai overseas fishing companies. This exposé into the sector's Indian Ocean scandals has been part of a broader supply chain investigation, using satellite technology to monitor reefer activity and teams to surveil and track hundreds of shipments of seafood as they moved from private ports to facilities throughout Thailand's seafood epicentre, Samut Sakhon. Further supply chain documentation, including desk research, surveillance and tracking, undercover approaches and analysis of trade data indicated links to export markets.

Turn the Tide finds that tainted fish caught by Bank vessels, and one trawler in particular, has entered the supply chains of companies supplying seafood to many countries around the world. Thai vessel *Sor Somboon 19* fished in the Bank throughout much of 2015. When it was forced to return to Thailand in January 2016, a Greenpeace team interviewed *Sor Somboon 19*'s Cambodian crew, finding that they met internationally-accepted definitions of victims of forced labour according to an initial screening. Many of them would be hospitalised and some of them would die in an outbreak of beriberi caused by vitamin B1 deficiencies which, according to a Government investigation were at their root caused by a business model based on transshipment at sea that enabled exploitative working conditions for crew to persist over long periods of time.

In highlighting the displacement of rogue fishing operations from stronger to weaker areas in terms of fisheries MCSE, this report emphasises the need for enhanced regional cooperation on frameworks to combat IUU fishing. For Thailand, many of the environmental and social risks associated with distant water fishing are directly connected to transshipment at sea. These risks are underscored by the cases of the beriberi-affected trawlers presented in this report. Current controls on distant water fishing must be improved, in particular the temporary controls on transshipment at sea outside of Thai waters. The Thai government should meanwhile ensure that it fulfils its responsibilities as a flag state by managing bottom fishing activity in the Saya de Malha Bank.

Overseas fishing companies responsible for clear violations of applicable laws or regulations must be held accountable, for both those cases in the Saya de Malha Bank and those being investigated by the Indonesian authorities. Removing the worst vessels from the water, through enforcement actions and market measures, can be a win for people and planet and reduce pressures from overfishing driving abuse and dirty fishing.¹² Robust action from industry associations and seafood processors, many of which are connected to major overseas fishing enterprises through family, is essential.

The entry of tainted seafood into the supply chains of companies – including global brands that distribute products around the world – highlights the need for stronger traceability systems and greater transparency in procurement services^{13/14}. The reliance on fundamentally flawed paper-based traceability systems and stark questions about the final destination of some seafood caught by IUU fishing vessels crewed by victims of trafficking, further undermines confidence in the traceability of one of Thailand's staple exports.

With overseas operators currently adjusting to Thailand's new regulatory regime, reefer-assisted fishing is restricted to the Saya de Malha Bank. But with fisheries access agreements being negotiated with foreign countries, such as the one signed with Fiji in February 2016, the time for regional governments and the global industry to take action to ensure appropriate and sufficient controls over Thai distant water vessels is now – before all the boats are back out at sea once again.¹⁵



Fishing crews unload fish from a vessel docked at the public fishing port in Ranong.

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03

Human Rights and Labour Violations: Beriberi Trawlers

What is beriberi?

Beriberi is caused by thiamine (vitamin B1) deficiencies.²⁰ Thiamine deficiencies often occur among people whose diet consists mainly of polished white rice (or other milled grains) and symptoms can develop within two to three months. Thiamine deficiencies cause a wide range of symptoms depending on the specific type. Symptoms can include swelling and pain in the limbs, loss of sensation and paralysis, muscular atrophy, shortness of breath and cardiovascular failure. The World Health Organisation notes that beriberi has a high mortality rate.²¹

Although improved nutrition around the modern world has now made beriberi a relatively rare disease, isolated outbreaks have occurred over the last two decades, including in Taiwanese immigration detention centres and Thai refugee camps.^{22/23} Last year, an outbreak occurred in a Thai prison, affecting 80 to 90 people.²⁴ Beriberi has also been found among Thai workers engaged in heavy physical labour, such as the kind aboard trawlers like Sor Somboon 19 and Sor Sapsingtai 20.²⁵

In January 2016, a Greenpeace team travelled to Ranong on the southern Thai-Myanmar border to investigate reports of deaths among fishers aboard two Thai trawlers returning with a group from the Indian Ocean: *Sor Somboon 19* and *Sor Sapsingtai 20*.¹⁶ A total of 32 crew from three vessels had been affected by health complications arising from vitamin B1 (thiamine) deficiencies.¹⁷ A further six crew had died from what a Government investigation subsequently determined to be beriberi.^{18/19}

Greenpeace investigators spoke to six Cambodian crew from aboard one of the two affected vessels: *Sor Somboon 19*, which had been continuously at sea for nine months.²⁶ Out of a total crew of 30, all had contracted beriberi with five fatalities resulting from the disease.²⁷ The survivors explained how supplies would be transhipped at sea in the Saya de Malha Bank by reefers coming from Samut Sakhon roughly every 90 days. Fresh vegetables and meat for the crew, however, would be finished after 10 and 20 days, respectively – meaning that most of the time their diet consisted of polished white rice and wild-caught fish.²⁸

Greenpeace visited four hospitalised Cambodians from *Sor Somboon 19*. The captain had told Greenpeace that when he noticed the arms and legs of some of the crew getting swollen, he'd injected them with a generic antibiotic.²⁹ Crew members interviewed by Greenpeace did not mention antibiotic treatments but described a range of symptoms, including fevers, numbness and swelling of limbs, vomiting and difficulty breathing. An official Government investigation into the 6 fatalities concluded that the men had died of heart failure – at its root caused by poor nutrition, overwork and long periods without return to port, enabled by transshipping at sea.^{30/31}

“The two boats aboard, where fatalities occurred, were at sea for long periods without returning to shore. The system for sending provisions to the vessels, including the amount of food, its nutritional value and the re-supply schedule, exposed the crew to a risk of vitamin B1 deficiencies.”³²

translated from the report by the Centre for Disease Control

Cambodian fishermen from Sor Somboon 19 recover from beriberi at Ranong Hospital. Thai government investigations determined that the hospitalisations and deaths from the beriberi outbreak aboard Sor Somboon 19 were directly caused by a business model based on transshipment at sea. Greenpeace research linked fish from this vessel to supply chains exporting seafood around the world.

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Cambodian fishermen from Sor Somboon 19 recover from beriberi at Ranong Hospital. Thai government investigations determined that the hospitalisations and deaths from the beriberi outbreak aboard Sor Somboon 19 were directly caused by a business model based on transshipment at sea. Greenpeace research linked fish from this vessel to supply chains exporting seafood around the world.

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The January 2016 beriberi outbreak in Ranong was covered extensively in the Thai media.^{33/34/35} By the time Greenpeace investigators arrived in Ranong, just three days after the trawlers themselves, the crew had given numerous interviews to the press. Despite this, representatives of the company and senior crew from *Sor Somboon 19* remained visibly anxious about outsiders talking to the migrant workers, both healthy and hospitalised, and attempted to supervise all interaction.³⁶ Greenpeace investigators tracked down the second vessel, *Sor Sapsingtai 20*, to a pier reportedly owned by a local fisheries magnate arrested last year in connection to the trafficking of Rohingya.³⁷ Thai men claiming to be representatives of the company that owns *Sor Sapsingtai 20* and four other trawlers which had returned together from the Saya de Malha Bank refused to allow the team access to any of the migrant crew. They claimed that, unlike *Sor Somboon 19*, there had been no health issues among the fleet's crew – despite records seen by Greenpeace detailing at least one death and one hospitalisation from *Sor Sapsingtai 20* and one beriberi case aboard another vessel.^{38/39} Reluctance on the part of vessel operators to allow interviews with migrant crew is unsurprising given the attention Thailand's water fishing industry has attracted as a result of widespread labour trafficking, exploitation and abuse.

A 2016 Government report reveals that, during official labour inspections, just under half of the 996 fishers from 50 Saya de Malha Bank vessels were working in violation of immigration and labour laws, including the 2014 Ministerial Regulation on Protection of Marine Fisheries Workers.⁴⁰ This Ministry of Labour regulation addresses issues such as hours of work and rest, recruitment processes, payment systems and health and safety standards aboard fishing vessels.⁴¹

Senior crew from *Sor Somboon 19* explained the vessel operator's recruitment and payment systems to Greenpeace investigators.⁴² A Cambodian broker is paid THB 3,000 (USD 85) per individual worker by the company, who makes some THB 500 to 600 (USD 14 to 17) in profit after transportation and food costs. If the worker is undocumented, the man will receive money from the vessel operator to go back to Cambodia in order to apply for a passport.⁴³ In mid 2014, the Cambodian government reduced the cost of passports for migrant workers to Thailand to the equivalent of just THB 120 (USD 4).⁴⁴ All of the crew interviewed by Greenpeace had entered Thailand with passports.⁴⁵ Thai law requires those working aboard overseas fishing vessels to be in possession of a Seaman Book in order to enter or leave the Kingdom's waters. The application cost for these documents is THB 520 (USD 14) and is typically arranged by the employer or broker.⁴⁶

The costs of recruitment are passed onto the worker. The senior crew member claimed that, despite the actual costs of recruitment to the company as outlined above, fishers would accrue around THB 20,000 (USD 571) in debt to the broker before even stepping aboard the vessel. Added to this would be a first advance of THB 30,000 (USD 857), to spend on supplies or send home to their families. The senior crew member reported that the men would work for approximately six months to pay this off before being eligible to request another advance from the vessel operator.⁴⁷

All Cambodian crew from *Sor Somboon 19* interviewed by Greenpeace investigators claimed that they had signed no employment contract with their employer – in violation of the 2014 Ministerial Regulation which requires written contracts for all fishers working aboard Thai vessels.^{48/49} Instead, work was undertaken on the basis of verbal agreements that the men would receive THB 8,000 per month (USD 228), payable as a lump sum at the end of a two-year working period.⁵⁰ Unless clearly stipulated in written employment contracts in an arrangement of benefit to the employee, failure to pay wages to fishers on a monthly basis is a violation of the 2014 Ministerial Regulation.⁵¹

“Working practices involving hard labour and extensive working hours causes the body to deplete Vitamin B1 at a faster metabolic rate to produce energy.”⁵⁵

translated from the report by the Centre for Disease Control



Workers unload fish from Sor Somboon 19 onto a waiting truck. More than 35 crew from this trawler contracted beriberi as a result of the poor conditions onboard, resulting in six deaths. Greenpeace tracked the fish from this vessel to companies exporting seafood to markets around the world.

© Biel Calderon/Greenpeace

Depending on the number of days worked in a month, the reported monthly wage of THB 8,000 is potentially a violation of the same regulation, requiring that fishers be paid the national minimum wage of THB 300 (USD 8.5) per day.

According to the conclusions of the Government's investigation into the beriberi cases, it does not seem likely that *Sor Somboon 19*'s crew were receiving adequate days nor hours of rest.⁵² During an interview with Greenpeace investigators the owner of *Sor Somboon 19* maintained that crew aboard his vessel worked a regular 12-hour day, from 08:00 to 20:00, during which the trawl nets would be deployed twice.⁵³ The senior crew member, however, reported that the crew worked rolling, five-hour on/off shifts and, when catches were particularly large or the nets damaged, would sometimes have to work for up to three days continuously – another violation of the 2014 Ministerial Regulation.⁵⁴

Medical research shows that long hours of hard physical labour depletes vitamin B1, increasing the risk of vitamin deficiencies where proper nutrition is not readily available.⁵⁶ Greenpeace investigations have determined that other beriberi outbreaks were identified as distant water fishing vessels returned to ports across Thailand before the Government-imposed deadline in January 2016. In the same month, at least two more individuals died while nine more were hospitalised from beriberi contracted aboard overseas vessels – although these incidents were not reported in the media.⁵⁷ All of the 2016 cases of vitamin B1 deficiency are violations of the Ministerial Regulation on the Safety, Hygiene and Wellbeing of Maritime Workers, B.E. 2558 (2015). It is not known to Greenpeace how many operators have been subject to appropriate sanctions.

The issue of basic vitamin deficiencies leading to fatal complications is not new to Thailand's distant water fishing industry. In 2005, Thailand's Bureau of Epidemiology investigated 15 probable cases of beriberi among survivors of a brutal case of gross negligence at sea.^{58/59} A fleet of six trawlers had left port in Samut Sakhon in 2003 to fish in Indonesian waters. After just over a year, however, the fleet's fishing licences expired. The vessels, dependent on transshipment at sea for supplies but awaiting new permits to fish, were allegedly abandoned by Thai reefers for a number of months. Stranded in the open water with dwindling stores of food and fresh water, men began to die.⁶⁰

In 2007, a group of 61 survivors and relatives of 39 dead crew members from the fleet of six trawlers sued the family-owned Praphasavee company.⁶¹ They alleged that the 39 deaths had occurred as a result of a lack of adequate food and water, describing how victims had become swollen and bled from various orifices before succumbing. Two of the deceased crew were buried in Indonesia, while the remaining 37 corpses were allegedly thrown overboard into the sea “because the captain thought taking them back to Thailand would cause him trouble.”⁶²

The survivors also demanded unpaid wages from their employer.⁶³ The crew were predominantly Burmese, working under fraudulent documentation and deceived into believing that they would spend several years in Indonesia on 45-day rotations. In reality, the survivors reported, they laboured continuously at sea for as long as 35 months in some cases, working 22-hour days routinely. On arrival in Samut Sakhon, they each received just THB 3,000 (USD 85) from the company owner.⁶⁴

The Praphasavee scandal and the 2016 beriberi outbreaks are harsh reminders of the vulnerabilities wrought by the kind of isolation typical of a distant water fishing industry reliant on transshipment at sea. One hospitalised worker in Ranong informed Greenpeace that he didn't think he would have been allowed to return to shore before the full two year term had he not fallen ill.⁶⁶

Non-binding verbal agreements, inflated recruitment fees and induced debt, excessive working hours and chaotic payment systems all significantly increase opportunities for exploitation and abuse of workers.⁶⁷ The International Labour Organization's Forced Labour Convention (C29), ratified by Thailand in 1969, defines forced labour as work or service extracted from any person under the menace of penalty or where the person and where the person has not engaged in the work voluntarily.⁶⁸

Evidence of the following aboard *Sor Somboon 19* indicates lack of consent:

1. **Deception about the nature of the work**
2. **Deceptive recruitment with regards to the terms and conditions of employment**
3. **Forced overtime**
4. **Forced to work on call**
5. **No freedom to resign**
6. **Induced indebtedness**

Menace of penalty, the means of keeping someone in forced labour, is evident in the deprivation of food, isolation (exclusion from community and social life), and the withholding of wages aboard *Sor Somboon 19*.

As with Government inspections at sea, cursory screenings of crew for indicators of modern slavery cannot adequately identify victims of trafficking or forced labour. Nevertheless, it seems possible that crew aboard *Sor Somboon 19* were victims of forced labour.

Beriberi in the overseas fishing industry

Most common beriberi symptoms among Saya de Malha Bank crews, 2016: ⁶⁵



Transshipment

Fishing vessels can stay out on the open water for years on end when supported by reefers



Inadequate food

Reefer re-supply schedules of 90 days mean that the amount and nutritional value of food for the crew is inadequate



B1 not replenished

Getting enough vitamin B1 in your diet is essential for maintaining a healthy body, especially for people engaging in hard physical labour

Vitamin B1 deficiency leads to Beriberi



Swelling and Pain in the Limb



Shortness of Breath



Cardiovascular Failure



Loss of Sensation and Paralysis



Hospitalization



Exploitation

Many workers onboard Thai trawlers fishing overseas have reported situations of exploitation such as: retention of identity documents, withholding of wages, intimidation and physical abuse



Overworked

Working hours and days aboard Thai trawlers are gruelling and typical, with reports of 22 hour days and continuous work without rest

Beriberi is caused by thiamine (vitamin B1) deficiencies which often occur among people whose diet consists mainly of polished white rice (or other milled grains). Hard physical labour and an unbalanced diet deplete vitamin B1 from the body.



Death

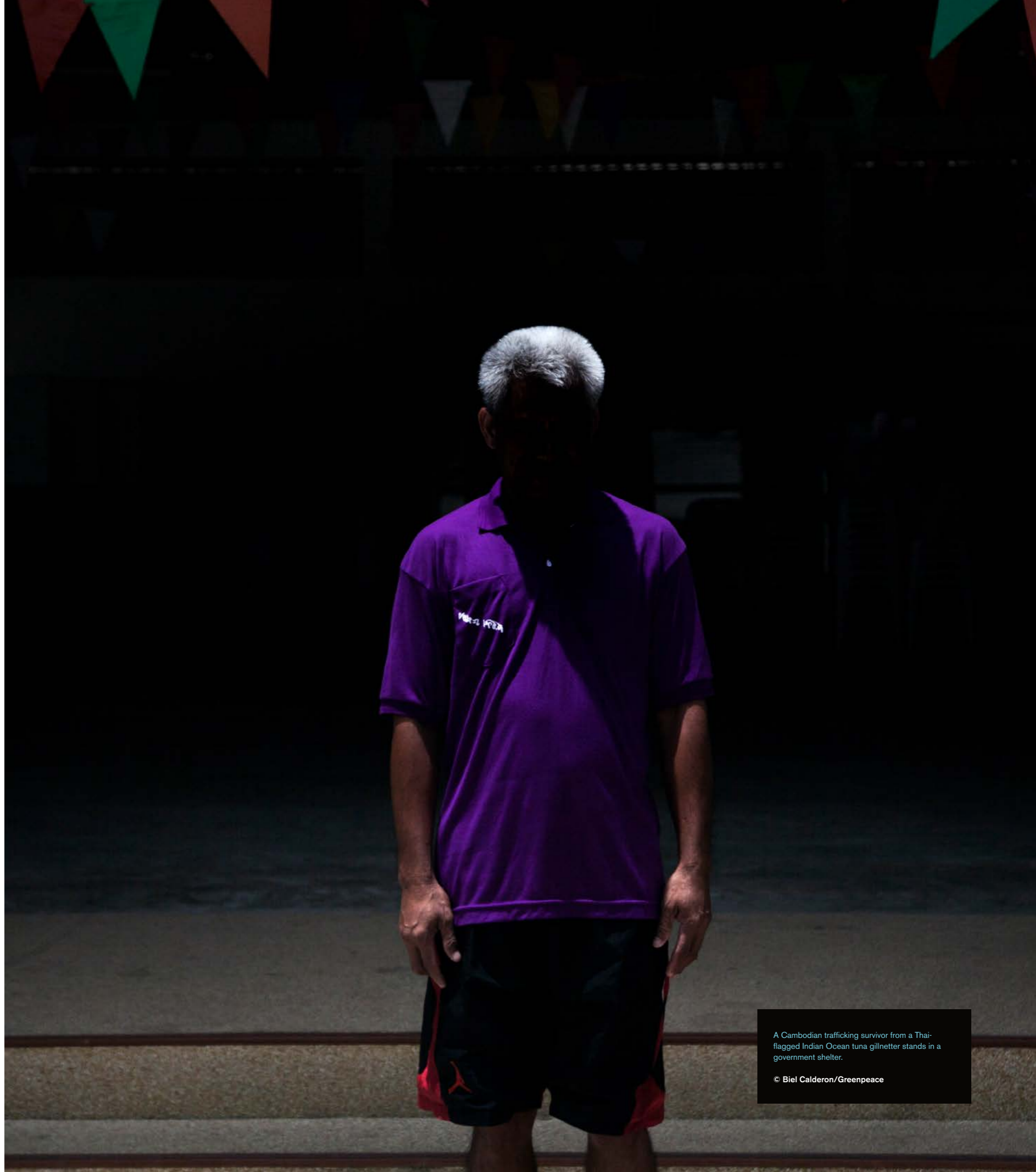
04

Human Trafficking and Forced Labour: Tuna Gillnetters

Human trafficking has been widely documented in the Thai fishing industry. In 2016, Greenpeace encountered one of the few known cases of modern slavery aboard a Thai vessel catching commercial tuna species for the country's multi-billion dollar tuna canning and export sector.

The week after Greenpeace investigators departed Ranong in January 2016, three more Saya de Malha Bank vessels arrived in port: *Kor Navamongkolchai 1*, *Kor Navamongkolchai 8* and *Kor Nava 19*. Thai authorities proceeded to rescue 15 Cambodian victims of trafficking from aboard the first two vessels, both gillnetters using driftnets to catch tuna for the previous 13 months.⁶⁹ In April 2016, a Greenpeace team were granted access to the Government's trafficking shelter in Ranong in order to interview the 15 survivors, ranging in age from 19 to 52 years old, all but one of whom had worked aboard the aforementioned vessels for 13 months.

Fourteen of the Cambodian trafficking survivors were originally part of a larger group of 28 men trafficked into the fishing industry through a network of Cambodian brokers in late 2014.⁷⁰ One survivor was trafficked via reefer four months after the vessels had departed. Local recruiters working with a Phnom Penh-based manning agency arranged passports and travel through the Ban Laem/Daun Lem border crossing. They were told by the brokers that they would be working onshore in a fish processing factory, receiving THB 8,000 (USD 228) per month and working 8-hour days with food and clothing provided by the company.⁷¹ Despite the Cambodian government's slashing of the cost of passport applications for Thailand-bound migrants earlier in mid 2014, from USD 124



A Cambodian trafficking survivor from a Thai-flagged Indian Ocean tuna gillnetter stands in a government shelter.

© Biel Calderon/Greenpeace



Burmese workers repair nets aboard a Thai purse seiner docked in Samut Sakhon, central Thailand.

© Daniel Murphy/Greenpeace

to USD 4, the men were told that each document would cost USD 250.⁷² The brokers informed them that they would pay this money back over time, in addition to unspecified fees that would cover their transportation to Thailand. They were assured that if they worked at the facility for more than one year they would get their passport “for free”.⁷³

Instead, the men were being trafficked to Samut Sakhon. Upon arrival, most of them were put directly onto fishing boats docked along the river, which is when they realised what was happening to them. Confined to port areas belonging to the company, the men would wait – some for over a month – while their Seaman Books were processed. During this time, they were put on “practice boats” in order to learn how to use the fishing equipment. It was aboard these vessels where some witnessed men being beaten for the first time.⁷⁴ In press releases, the Thai government has touted such practice boats as part of the fight against trafficking and IUU fishing – one such Government article from 2015 focuses on the practice boat owned by the company operating beriberi-affected trawler *Sor Sapsingtai 20*.⁷⁵

Nine out of the 28 trafficked Cambodians attempted to flee during the time they were confined in the port area but they were all rapidly caught at police checkpoints in Samut Sakhon.⁷⁶ One individual recounted having his phone immediately seized by police before being driven to the fishing company owner’s house. He was subsequently told by the company’s Cambodian pier manager that the broker had sold them each for 30,000 baht and that this was the price they would have to pay for their freedom to return home. One youngster among the group managed to raise the cash through his family and was eventually sent back across the border.⁷⁷

Deceiving migrants in this way is a typical feature of trafficking routes into the Thai fishing industry. Deceptive recruitment arrangements described by brokers regarding documentation fees, transportation costs, etc. are a common means used to trick people into debt bondage and trafficking. All 15 of the victims interviewed by Greenpeace in 2016 described how their families had reported that the brokers were deducting significant portions – up to 50% – of the earnings owed to the fishers paid through advances.⁷⁸

In December 2014, the tuna gillnetters departed Samut Sakhon with their trafficked crew.⁷⁹ Trafficking has not been well-documented aboard vessels targeting tuna fish, there are very few systematic studies in existence.⁸⁰ In Thailand, this lack of research is principally a result of the fact that although the country is a global centre of tuna production, it imports almost all of its raw tuna for processing and canning before re-export to world markets.⁸¹ For the men working aboard these Saya de Malha Bank gillnetters, the fact that they were catching high-value commercial species had very little impact on their conditions of work, which resembled trafficking for forced labour situations typical of the Thai fishing industry.⁸²

The gillnetter crews would spend four hours setting the nets each night, which would stay in the water for only three or four hours, and most of the rest of their time mending the 12 to 15km-long driftnets. Overall, the men were fully resting just three or four hours in any day, with no days off. Even during full moon, when the vessels would not fish for one to three days, they would mend the driftnets from 06:00 to 17:30. The Thai captains and engineers were routinely abusive. Frequent verbal abuse and threats, restrictions on freedom of movement (such as

refusing requests to go to the toilet) and arbitrary punishments according to rigid work schedules were only part of a litany of more sinister maltreatments.⁸³

Almost half of the 15 survivors interviewed by Greenpeace experienced physical violence aboard the vessels. The captains would typically kick them or beat them on the head, back and shoulders with their fists but also used weapons such as wooden bats and even knife sharpening stones. One of the main reasons for beatings was illness, especially when there was insufficient food on-board and exhausted crew members would sneak off to attempt to rest. Some crew may have suffered from vitamin deficiencies similar to men aboard the trawlers.⁸⁴ Another frequent spark was during net-mending periods, whenever the senior crew believed that that victims were not working fast enough. After one such beating, one captain threatened to transfer both the victim and his brother to another vessel as further punishment.⁸⁵

Crew aboard *Kor Navamongkolchai 1* often saw violence against Thai victims as well, including severe injuries that left men bleeding. Survivors reported that eight Thai crew had tried to escape during transshipments but five were caught, beaten and put back to work. At other times, some six Thais had jumped into the water to try and escape the hellish conditions: four were re-captured and beaten while the other two were assumed to have drowned. One survivor recalled hearing how, as the captain and engineer finished savaging one Thai victim, they threatened to throw the man overboard. Another Thai who departed with the 15 Cambodians in December 2014 from Samut Sakhon reportedly dropped from 80 to 40kg during his time aboard *Kor Navamongkolchai 1*. A survivor told Greenpeace how this Thai

man had been beaten almost every day by the captain, even while sleeping, and often until he was bruised, bleeding and unable to work.⁸⁶

During transshipments at sea, when fishing vessels gathered to transfer catches to reefers, the survivors had an opportunity to interact with crew from other vessels. The survivors told Greenpeace investigators how all of the Thai and Cambodian crew they met in the Saya de Malha Bank reported similar work conditions to their own, with some having already been at sea for as long as five years. During one transshipment, one of the 15 survivors attempted to flee to the reefer vessel only to find that the reefer crew simply took the man straight back to the gillnetter. The captain subsequently increased the man’s workload to what the other survivors described as “slavery”.⁸⁷

None of the men had any idea as to when they would be able to stop working aboard the vessels. One survivor, who couldn’t take it anymore, recalled asking their captain if they could return home with one of the reefers but was met with blank refusal. Trapped at sea, the Cambodian crew aboard *Kor Navamongkolchai 8* formulated a plan together to escape as soon as the boat went back to shore. Aboard *Kor Navamongkolchai 1*, some of the crew considered attempting to wrest control of the vessel by force. In late 2015, the Thai government issued controls on distant water fishing that brought the gillnetters to port and a new at-sea inspection regime under Royal Thai Navy coordination which gave the men an opportunity to escape.⁸⁸

Excerpts from interviews with trafficking survivors from Indian Ocean tuna fishing boats

" I often saw the captain beat Thai and Cambodian crew members. We were kicked, punched and beaten with sticks. Once, one of the Thai crew was forced to the floor of the deck while the captain stepped on his face. About ten minutes later, the engineer beat the man until his face was swollen and threatened to throw him into the sea."

" Working on a boat faced with violence and abuse, in the middle of the ocean where you couldn't even see the shore.... it seemed like there was no future at all."

" It seems to me like buying these fish and eating these fish is one of the things that keeps us suffering - we faced much hardship just to catch those fish."

" When I return home, I don't want to tell my family anything besides that I miss them. I feel sad that I left home for months and years to work but I haven't been able to provide for my family or even communicate with them."

" I want to tell consumers that the seafood you are eating comes from our suffering and such heavy work. I want to tell them about the challenges we faced to land those fish. Each was caught with forced labour and abuse. When you eat fish, please think about us. Catching it was hard - not convenient like it is for consumers who buy the fish to eat."

" I want to tell the companies to stop buying fish caught through illegal fishing. Men were abused and tricked into working on the boat. I want the companies to stop buying blood-soaked fish. We suffered from the heavy work with no breaks."

" I was afraid that I would be eaten by sharks if I jumped into the sea to escape. There were 6 Thai men who jumped into the sea because they couldn't take the heavy work and violence. Four were recaptured and beaten while the other two disappeared because there was a storm and big waves that night."

" Sometimes, when I couldn't take the abuse anymore, I thought about jumping into the sea. If I was lucky, I would've survived. If not, I would've been dragged down and eaten by the fish."

" I was so sick in my stomach once that I went to the hold to rest. The captain came in and started beating me with a stick. He didn't ask me what was wrong, just accused me of being lazy. I told him I was sick, that I couldn't work but he just kept beating me, forcing me to work, until I went back out on deck."

05

The Thai Government's Response: Eyes on the Sea

Thailand's government has led wide-reaching reforms of the fishing industry in recent years. But the ability of labour inspectors to identify and assist crew in need of assistance is still falling far short.

In April 2015, the Thai government embarked on an ambitious program of reform of the fishing sector in the face of widespread and growing international pressure. Renewed political will to address the then chronically under-regulated sector was largely seen as a response to the European Union's decision to issue a "yellow card" warning on what was considered to be seafood imports tainted by IUU fishing. The military government's subsequent reform package has been underpinned by an inter-agency inspection regime of fishing vessels and crew, both onshore and at sea.⁸⁹ While impressive in scale and scope, the new inspection systems have faced questions over whether they are effective means of enforcing fisheries regulations and identifying crew who may be in need of assistance.^{90/91}

As the gillnetters *Kor Navamongkolchai 1*, *Kor Navamongkolchai 8* and *Kor Nava 19* approached the Andaman coast in early 2016, the Royal Thai Navy flagged the vessels for inspection. The 15 trafficking survivors recalled to Greenpeace how they boarded the Navy vessels and, as according to protocol, were separated from the senior crew before giving interviews to Department of Labour Protection and Welfare officials. During these interviews, all crew were screened for indicators of labour trafficking. Afterwards, all of the men were put back on the three fishing vessels and escorted to the port of Ranong, where two of the captains would eventually be arrested and some of the crew interviewed further.⁹²



Workers take a break after unloading fish from Sapsingtai 19.

© Chanklang Kanthong/Greenpeace

Officials from the Command Center for Combating Illegal Fishing (CCCIF) inter-agency taskforce inspect a Thai trawler returning from the Saya de Malha Bank. Almost half of the Thai vessels inspected as they returned from the Saya de Malha Bank were found to be in violation of applicable fisheries and labour laws.

@ Anchalee Pipattanawattanakul/Greenpeace



Initiating a labour inspection at sea and then allowing senior crew to mix freely with fishers seriously undermines the inspection process. By putting victims of exploitation and abuse back aboard fishing vessels unsupervised and into the hands of their tormentors, labour inspectors invite coercion as well as reprisals that may pose risks to the personal safety of victims they are seeking to protect. According to the 15 survivors, the captains didn't hesitate to seize the opportunity. They related how one of the captains had called a meeting as the vessel was being escorted back to Ranong, assigning one of the crew to translate. The captain informed the crew that he had just received a call from the vessel owner and that if the crew told the authorities that they had been treated well they would be paid in full and able to return home.⁹³

The survivors noted that even when they had arrived back at shore these coercive tactics continued within sight of officials, this time with an alleged representative of the vessel owner joining the captains. The survivors recalled how some of them had believed the promises of their abusers while others had not. The 15 trafficking survivors did not know why the 12 other Cambodian men that had originally accompanied them to Samut Sakhon and

onto the boats had ended up being sent home by Thai officials. They informed Greenpeace investigators that they assumed that the 12 men had given answers that meant they would not be categorised as victims of exploitation or abuse.⁹⁴ Similarly, the survivors did not know what became of Thai crew who had been abused, including one Thai man allegedly beaten severely almost everyday by the captain. By the time they arrived back to land, this man's weight had halved and he was unable to walk properly.⁹⁵

In January 2016, Greenpeace had an opportunity to directly observe inter-agency inspections of three fishing boats returning from the Saya de Malha Bank. The vessels, *Supphermnavee 2*, *Supphermnavee 48* and *Chainavee 17*, were all large trawlers catching Indo-Pacific mackerel and a variety of lower-value species which would primarily go on to be used as raw material to produce surimi.⁹⁶ Interviews with the migrant crew were conducted in partnership with a local civil society organization and observers from the International Labour Organization (ILO) were also present. According to the most recent Port Clearance documents in the captains' possession, the vessels had been authorized by Thai authorities for departure to fish in Papua New Guinean Waters in 2010.⁹⁷

Government inspectors identified fisheries violations aboard all three of the vessels, including the use of fishing gears (trawl nets) other than those specified in the fishing gear license. As new regulations started to come into force in mid 2015, mismatches between licenses and the actual fishing gears in use were found to be extremely common among Thai trawlers.⁹⁸ During at-sea inspections observed by Greenpeace in January 2016, legislation was in place which defined this kind of infringement as "serious" and prescribed fines of between THB 6 to 30 million (USD 171,000 to 857,000) or five times the value of the catch (whichever is higher) for vessels the size of these three Bank trawlers.⁹⁹ Additional sanctions available to authorities range from seizure of catch, fishing gears and the vessel itself to suspension of the license to fish and inclusion on a public blacklist of IUU vessels.¹⁰⁰ Nevertheless, fisheries infringements were overlooked, according to officials present at the scene, in order to focus on any trafficking and labour offences aboard the trawlers.¹⁰¹

During interviews with officials, some of the information disclosed by Thai and migrant crew from the three trawlers strongly reflected testimonies gathered by Greenpeace from

other fishers who had worked in the Saya de Malha Bank, including victims of exploitation and abuse. Some crew reported paying exorbitant recruitment fees of up to THB 26,000 (USD 742) to brokers – noting that they had not received any information regarding working conditions, payment or the length of time at sea prior to getting onboard the vessels. The payment system consisted of advances sent home in undocumented transfers via brokers and lump sums promised to workers after completing years at sea. Several men had not been paid in years and, despite having signed contracts, were unable to say how much they were expecting to be paid. Delayed payment of wages is a violation of the 2014 Ministerial Regulation on Protection of Marine Fisheries Workers.¹⁰² Although some crew were in possession of Seaman Books, these were considered fake by the inspectors due to the fact that the men had not applied for the documents themselves. Although the fishers' written contracts stipulated an employment period of one year, several of the men noted that they had been working aboard the vessels for as long as five years. Inspectors reported to Greenpeace that none of the 57 migrant crew were in possession of appropriate work permits.¹⁰³

All of the above are significant indicators of risks of trafficking for forced labour and debt bondage of the kind frequently seen in other cases in Thailand. In particular, the connection between the length of time some fishers reported being onboard the vessels (five years) and the Port Clearance documents dated to 2010 should have attracted immediate concern. Despite these issues and the fisheries infringements identified by Government officials, all three vessels were cleared by the inter-agency inspection team for return to port. Greenpeace is not aware of the outcome of any follow up investigations conducted by the authorities into the issues aboard these vessels. Although senior crew were separated from fishers during the interviews with inspectors, crew were unwilling or unable to share specific information on labour rights abuses despite the extended period of time at sea without payment.

As noted already, at-sea inspections of 50 vessels returning from the Indian Ocean identified infringements of labour and immigration laws for almost half of the 996 crew members –

mostly relating to irregular status and the lack of appropriate work permits (i.e. Seaman Books) and written contracts of employment. Yet the same inspectors reported no instances of suspected human trafficking.¹⁰⁴ Conducting inspections at sea is challenging, as is securing the trust and confidence of men, especially migrant workers who may not feel empowered to talk about their situation or even be fully aware of their rights. Inspectors operating under a new framework meanwhile face additional pressures when under observation by external stakeholders and when conducting screenings in the limited time available during inspections at sea.

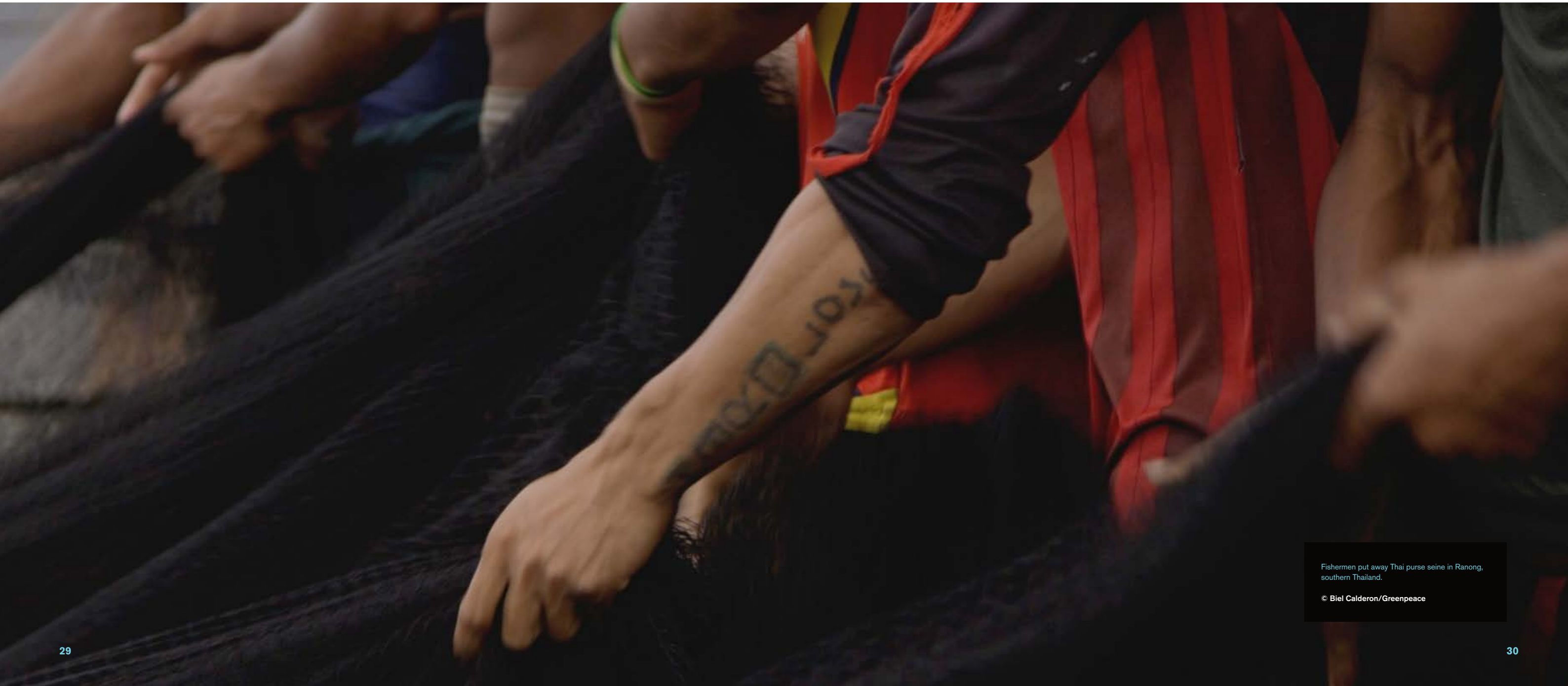
Nevertheless, in light of the circumstances surrounding the gillnetters' return to Ranong and the red flags raised by crew aboard the three trawlers inspected in January 2016, Greenpeace's observations undermine confidence in the ability of the Thai authorities to effectively screen for indicators of trafficking for forced and bonded labour. These conclusions resonate with those of a 2014 BBC observation of an at-sea

inspection of a distant water fishing vessel, as well as the recent findings of research and investigations into Thailand's flagship initiative of 2015: the nationwide Port-in/Port-out (PIPO) inspection system.^{105/106/107}

Despite Thailand's inspection regimes, regulatory controls placed on distant water fishing fleets by the Government in December 2015, which followed the coming into force of the Royal Ordinance on Fisheries, B.E. 2558 (2015), have had far-reaching impacts. A six-month "ban" on transshipment at sea among the distant water fleet ordered by the Government in late December 2015, and subsequently extended in mid 2016, has three exceptions.¹⁰⁸ These exceptions allow for transshipment at sea to occur outside of the Thai EEZ where the reefer: (1) has authorization from the coastal State where transshipping in a foreign EEZ; (2) is under supervision of a relevant international organization where transshipping in the high seas; or (3) has a qualified fisheries observer on board.

Thai vessel operators wishing to fish overseas must now be in possession of a distant water fishing license.¹⁰⁹ Overseas licenses are limited to vessels fishing in the waters of coastal states with which Thailand has signed fisheries agreements or, in the case of the high seas, international organizations of which Thailand is a member.

In addition to the national vessel identifiers required for all fishing and support vessels under Thai law, overseas vessels must now apply for International Maritime Organization (IMO) numbers, a unique vessel identifier scheme which has been extended to fishing vessels over 100 gross tons (GT) as part of movement towards a Global Record.^{110/111} These vessel identifiers, in combination with Thailand's new vessel monitoring system (VMS), have gone some way towards establishing basic monitoring, control and surveillance over the distant water fishing industry.



Fishermen put away Thai purse seine in Ranong, southern Thailand.

© Biel Calderon/Greenpeace

06

The Saya de Malha Bank

Remote, biodiverse and poorly-policed, the Saya de Malha Bank has been a haven for rogue Thai fishing operations over the last 18 months.

All six of the overseas fishing boats directly investigated by Greenpeace in 2016 (see Appendix 1) were operating in and around a remote location in the Indian Ocean: the Saya de Malha Bank. The Bank is located around 1,300 km from the northern tip of Madagascar and is over 40,000 km² in extent, close to the size of Belgium, making it one of the largest shallow tropical marine ecosystems in the world.¹¹² In 2011, a United Nations body granted an extended continental shelf claim made by nearby Seychelles and Mauritius, resulting in their joint administration of the continental shelf beneath the entire Bank.¹¹³ However, neither country exercises effective management over fisheries in this area, which remain essentially unregulated.¹¹⁴

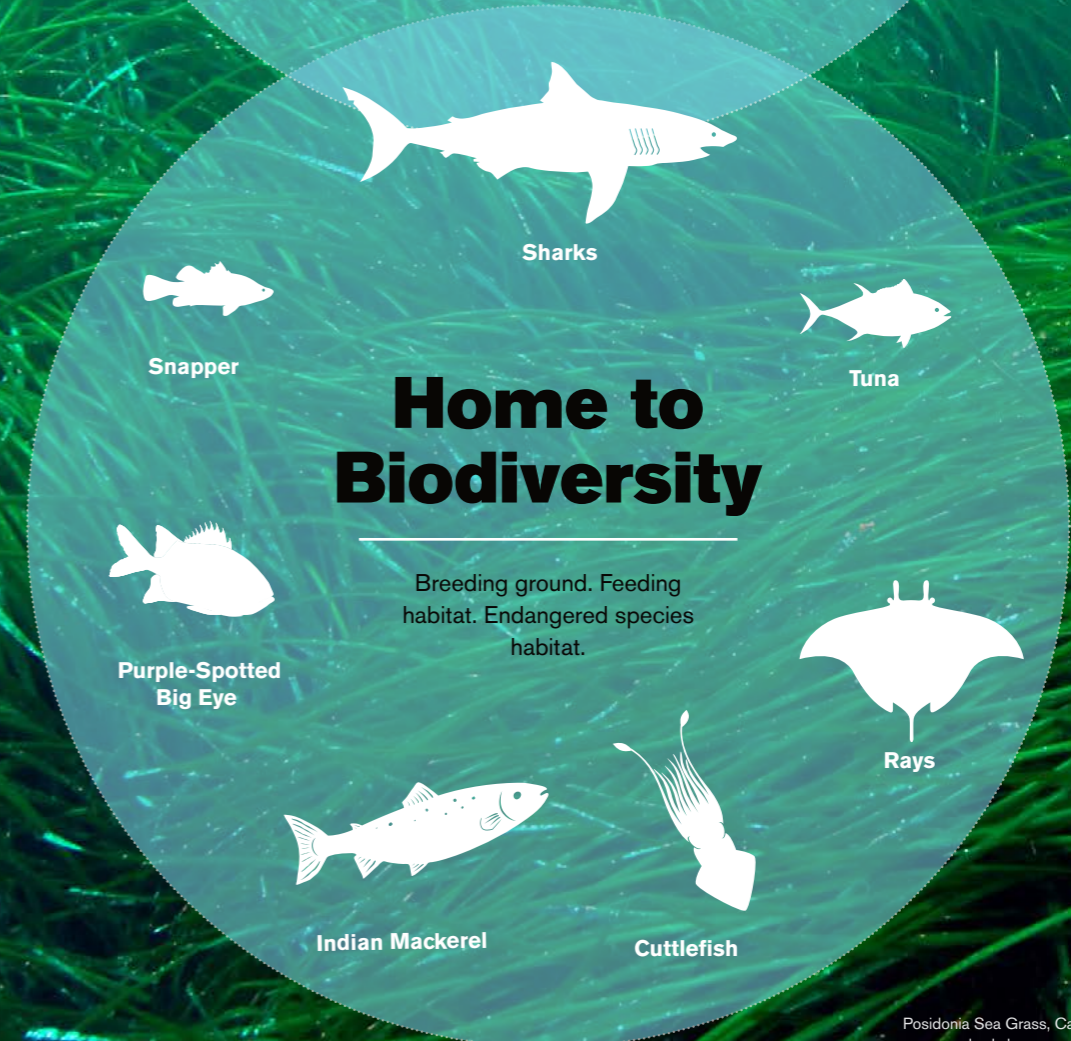
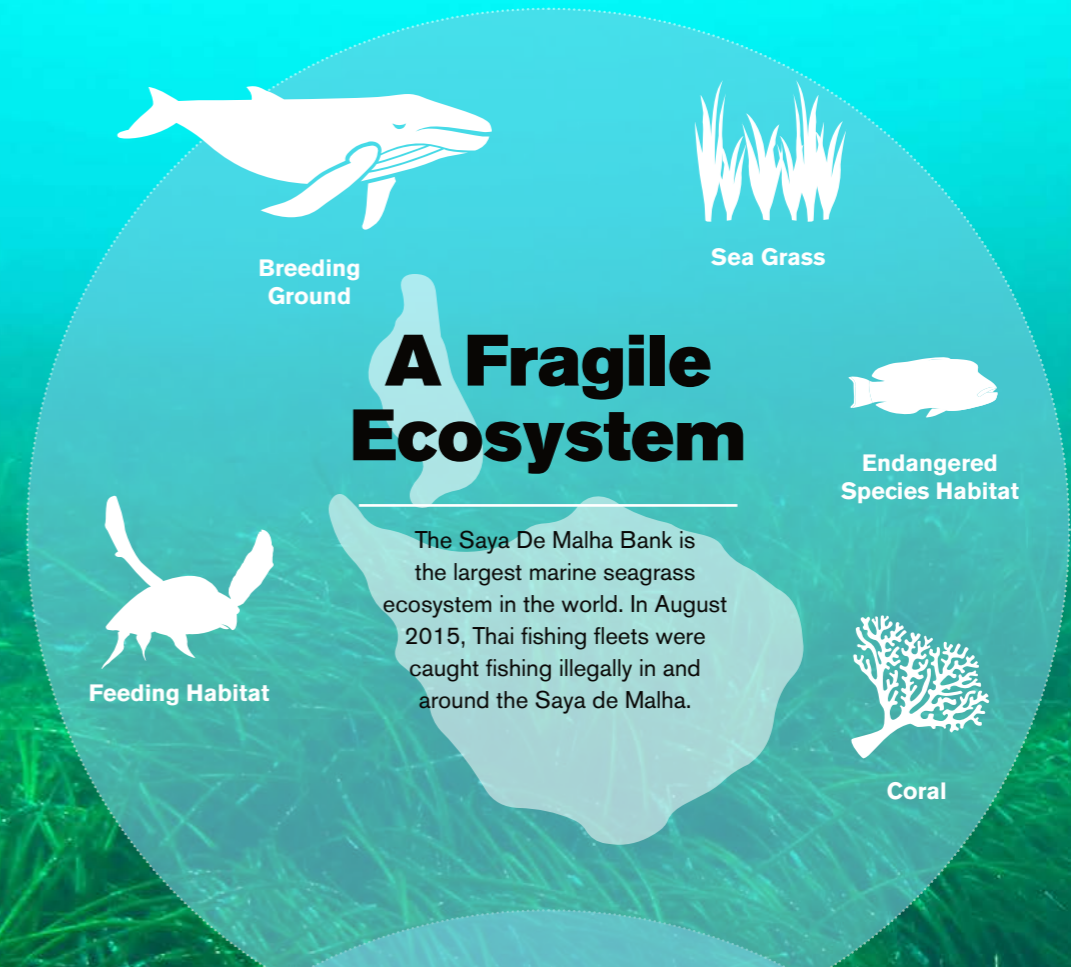
Coral species inhabit some 10-20% of the Saya de Malha Bank, while the rest constitutes seagrass beds that make the Bank the world's largest, and one of its most crucial, seagrass ecosystems.¹¹⁵ The Bank is a feeding habitat for the green turtle (*Chelonia mydas*), a major breeding ground for Humpback and Blue whales and also a key stepping stone in the migration of shallow water species across the Indian Ocean.^{116/117} A 2011 WWF study concluded that the Bank met all seven criteria for Ecologically and Biologically Significant Areas (EBSA) status.¹¹⁸ The Bank is also considered one of the last refuges for Napoleon wrasse (*Cheilinus undulatus*), a species highly vulnerable to fishing that was listed as Endangered on the IUCN Red List in 2010.¹¹⁹

The Saya de Malha Bank has been commercially fished since at least the 1970s and revenue from fisheries resources from the Bank now contributes some 5% of Mauritian GDP.^{120/121} A Food and Agriculture Organization (FAO) report from 2006

describes how local fishing operations focus on mid-water and bottom trawl fisheries targeting bream and snapper/grouper species, noting that landings from the Bank were considerably higher than those from other nearby demersal fisheries along the Mascarene Ridge, which are mostly located within the Seychelles or Mauritian EEZs.¹²²

Transshipment at sea is central to the Thai business model: maintaining the operations of overseas fishing fleets in the Bank requires routine journeys by reefer of over 7,000 km in order to deliver supplies to boats and pick up fish. Thai trawlers fishing within the Bank, such as *Sor Somboon 19*, catch a variety of species including Indian mackerel, threadfin bream, emperor bream, purple-spotted big eye, cuttlefish, croaker, grouper, lizardfish, pony fish, sillaginids, goatfish and different types of snapper, rays and juvenile sharks.^{123/124} Trawlers would stay in the Bank, meeting reefers to transship at sea roughly every 90 days.¹²⁵

The gillnetters were using 12-15km long driftnets to fish for different commercial tuna and tuna-like species, according to testimonies and visual identifications of fish species from the 15 trafficking survivors.¹²⁶ The boats would travel anywhere from three to 14 hours outside of the Bank in order to identify the best place to set the nets. In addition to tuna and tuna-like species, the men also reported that up to 50% of their catch could consist of sharks, which is roughly in line with the findings from scientific studies on Indian Ocean gillnetter fleets.^{127/128} The gillnetters would return to the shallow, calm waters of the Bank in order to transship at sea.¹²⁹ Here they would transfer the tuna and beheaded sharks onto Thai reefers bound for Samut Sakhon.¹³⁰



Posidonia Sea Grass, Caparaia Island. Many seagrass beds have encrustaceans of coralline algae, but this one is particularly clean.

07

Dirty Fishing: A Regional Crisis

The findings from Greenpeace's most recent investigation indicate a high risk of human rights abuses being widespread among the Thai fleet operating in the Saya de Malha Bank. This observation is supported by interviews with crew, including victims of trafficking who maintained that, during their time in the Bank, they interacted with many Thai and Cambodian fishers who faced similar working conditions to their own.^{131/132/133} This conclusion is also reflected in official statistics, which indicate labour law infringements for almost half of all fishers from Bank vessels interviewed during the course of – somewhat problematic – inter-agency inspections at sea.¹³⁴

At the same time, human rights abuses in Thailand's overseas fishing fleets are inextricably bound up with unsustainable and sometimes illegal fishing practices – including transshipments at sea which do not comply with applicable requirements. A history of Thai distant water fishing describes how some companies are veteran and unrepentant rule-breakers.¹³⁵ Decades of overfishing has pushed operators further afield, favouring a “bottom line” business model characterised by sub-standard vessels, abusive working conditions and disregard for fragile marine ecosystems. The Saya de Malha Bank scandals therefore posed a question: to what extent were the fishing operations in the Bank connected to “dirty fishing” by Thai companies elsewhere? The beginning of an answer to this question lay in the movements of Thai-owned reefer vessels.

In early December 2015, as Greenpeace monitored vessels operating in the Saya de Malha Bank using remote sensing technology, Thai-owned *Blissful Reefer* arrived in the Bank. It had come straight from Port Moresby, Papua New Guinea, where it had been impounded by authorities since August 2015.¹³⁶ The seizure of *Blissful Reefer* in August came after

Associated Press (AP) linked the vessel to their ground-breaking investigation into systematic trafficking and abuse aboard Thai fishing fleets operating in Indonesia, released March 2015.¹³⁷ AP, in partnership with SkyTruth, had been tracking the movement of reefers suspected to be involved in Thai trafficking syndicates by monitoring their Automatic Identification System (AIS) broadcasts, an approach later adopted by Greenpeace analysts.¹³⁸

According to AIS and other positioning data dating as far back as 1999 which were obtained by Greenpeace, *Blissful Reefer* had been picking up fish in a region of the Papua New Guinean EEZ known as the Dog Leg since late 2014. In the Dog Leg, *Blissful Reefer* had been visiting port in Daru Island as well as exhibiting activity consistent with transshipment at sea.¹³⁹ Between 2012 and late 2014, prior to moving to the Dog Leg, *Blissful Reefer* had been loading fish from the now notorious Indonesian island of Benjina.¹⁴⁰ Older positioning data from 2000 to 2007 records regular visits by *Blissful Reefer* to the port of Ambon, another island associated with the systematic trafficking of hundreds of vulnerable men onto Thai overseas fishing boats.^{141/142/143}

Blissful Reefer's seizure in the Dog Leg was the result of an anti-trafficking sting precipitated by AP's intelligence.¹⁴⁴ Initial reports detailed that two Burmese and six Cambodian victims of trafficking had been placed aboard *Blissful Reefer* for transport and assignment to fishing vessels operating in the Dog Leg.¹⁴⁵ The men were in possession of documents which showed they were being brought to work on two Thai-owned trawlers: *Chainavee 12* and *Chainavee 24*. Both trawlers had been licensed to operate in the Dog Leg since late November 2014 and, according to AP, were part of a group of 34 fugitive

vessels carrying trafficked workers which fled Benjina during the Indonesian crackdowns on trafficking.¹⁴⁶ A Burmese crew member from fugitive trawler *Antasena 331* later recounted to AP how they had simply nailed a new name over the old Indonesian one and lifted the Papua New Guinean flag by way of explaining the ease with which Thailand's ghost fleet shifted operations from EEZ to EEZ.¹⁴⁷ Similarly, the Indonesian government notes how another vessel, *Mabiru 98*, changed its name to “*Pornpohroensap 740*” [sic] as it moved to the Dog Leg to transship at sea with *Asian Marine Reefer* (former *Silver Sea Line 3*) and Bank reefer *Sea Network*.¹⁴⁸

Less than six months later, *Chainavee 12* and *Chainavee 24* would return to Thailand from the Saya de Malha Bank – not the Dog Leg.¹⁴⁹ The fact that *Blissful Reefer* and these two fishing boats ended up travelling over 8,500 km from Southeast Asian waters to the Bank raises two important questions: how many other vessels made the same journey, and why?

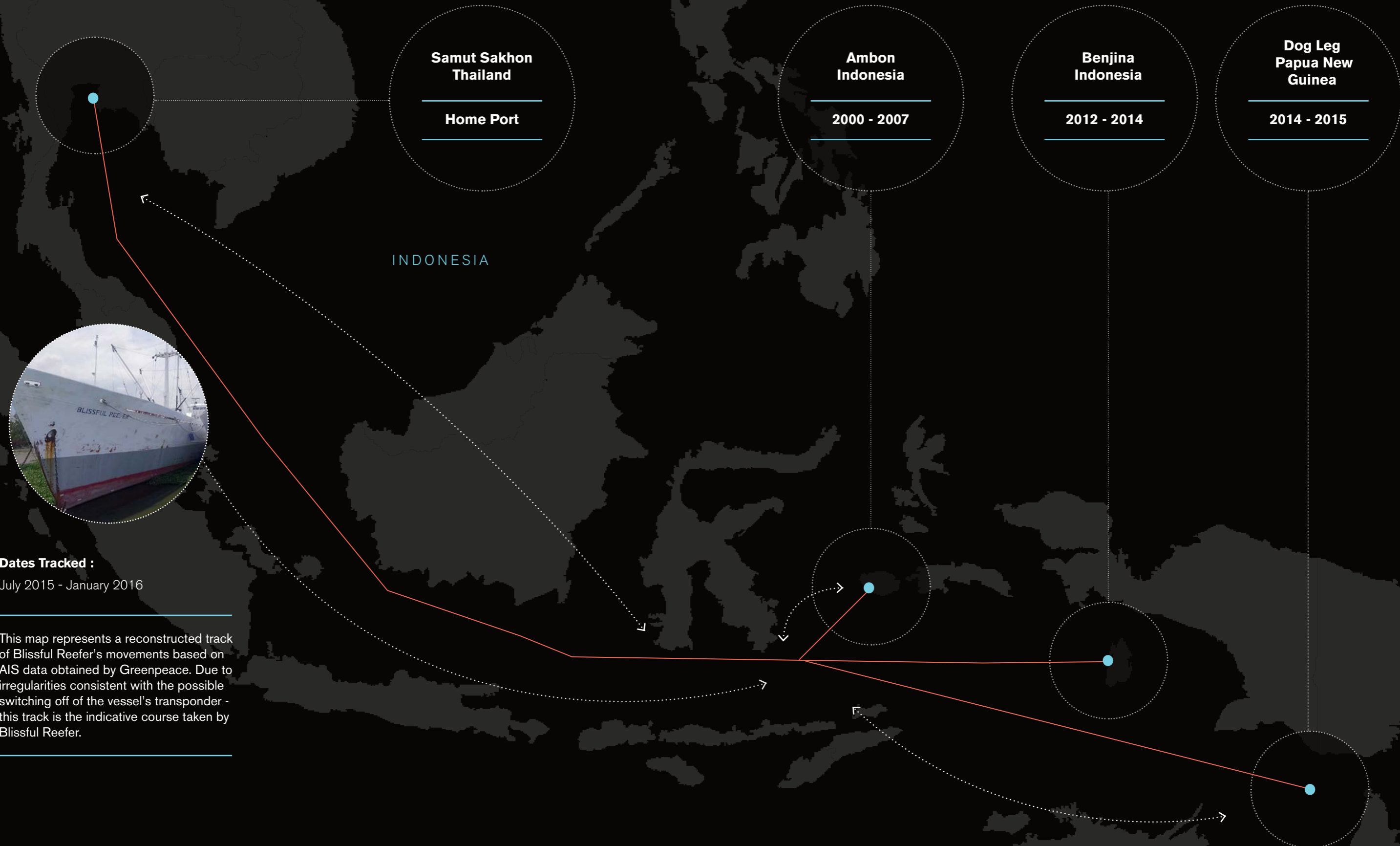
Greenpeace analysed almost 200,000 AIS broadcasts and Lloyd's List Intelligence data going back to 1999 to uncover that over 70% of all known Thai-owned reefers (or 26 out of 36, including non-operational vessels) have, at one time or other, operated in ports or areas associated with dirty fishing operations: Ambon, Benjina and Tual in Indonesia and Papua New Guinea's Dog Leg region.¹⁵⁰ Of these 26 reefers, 17 had been operating in either Ambon or Benjina within the last 24 months – i.e. during Indonesia's crackdowns on trafficking and IUU fishing starting late 2014. Eight out of the 17 reefers shifted their operations to the Dog Leg in late 2014 or the first half of 2015, with a further four vessels known to be loading fish in the Dog Leg within the last 24 months but not Indonesia. Six of these eight reefers subsequently ended up in the Saya de Malha Bank in the second half of 2015 (including four vessels which had started out in Indonesian waters), while an additional reefer was revealed to have been operating in the Bank over the last 24 months (but not the Dog Leg or Indonesia) and one other vessel was shown to have started operating in the Bank in August 2015 but nowhere else in the last four years.¹⁵¹

Tracked Reefer Vessels by Fishing Area

Ambon / Benjina, Indonesia 2014-15	Dog Leg, Papua New Guinea 2014-15	Saya de Malha Bank 2015-16
Blissful Reefer	Blissful Reefer	Blissful Reefer
Wisdom Sea Reefer	Wisdom Sea Reefer	Wisdom Sea Reefer
Precious 9	Precious 9	Precious 9
Asian Marine Reefer	Asian Marine Reefer	
Celtic Ice	Celtic Ice	
Silver Sea 2	Silver Sea 2	
Silver Sea 3	Silver Sea 3	
	Chainavee Reefer	Chainavee Reefer
	Patsorn	Patsorn
	Sea Network	Sea Network
Asian Marine Reefer 2	Mega Reefer	Sirichai Reefer
K Golden Sea	S. Leelawadee	Missouri Reefer
Marine One		
Mega Reefer		
Seavic Aremar		
Seavic Prinses		
Seavic Reefer		
Serene Reefer		
Sumber Sukses Utama		
Sutti Reefer		

■ three high risk areas ■ two high risk areas ■ one high risk area

Tracking the Blissful Reefer



Dates Tracked :

July 2015 - January 2016

This map represents a reconstructed track of Blissful Reefer's movements based on AIS data obtained by Greenpeace. Due to irregularities consistent with the possible switching off of the vessel's transponder - this track is the indicative course taken by Blissful Reefer.

Scrutinizing the movements of some of the Bank reefers offers useful insights into the shifting patterns of Thai reefer operations. In April 2015, just after the AP story broke, Thai reefer *Precious 9* moved out of Benjina and headed for Daru Island in Papua New Guinea's Dog Leg via northern Australian waters. By September, *Precious 9* was in the Saya de Malha Bank. Similarly, in early 2015, *Wisdom Sea Reefer* headed to the Dog Leg from Benjina before moving to the Saya de Malha Bank in September. In August 2015, on its last journey back to Samut Sakhon from the Dog Leg, and just prior to heading to the Bank, *Wisdom Sea Reefer* made an unprecedented alteration to its typical route in order to travel south of Indonesian waters, skirting the entire Indonesian EEZ rather than traversing the Banda and Java seas. This may have been an attempt to avoid the fates of *Blissful Reefer* and *Silver Sea 2*; both seized that month by Papua New Guinean and Indonesian authorities respectively. From 2013, the reefer *Patsorn* was transshipping at sea in a remote location within the Torres Strait Regional Authority, nearby to Warul Kawa Indigenous Protected Area (also known as Deliverance Island), a location frequented by multiple Thai reefers over several years. *Patsorn* also moved to the Bank in September 2015. According to AIS data, one Bank reefer – *Sea Network* – has never visited a port outside of Thailand in the last four years but has instead always transshipped with vessels at sea.¹⁵²

By the closing months of 2015, the movement of new Thai reefer vessels to the Saya de Malha Bank represented a seven-fold increase in the size of the reefer fleet (from 2,481 GT to 17,644 GT) and a nine-fold increase in 'deadweight' carrying capacity (from 2,196 tons to 19,342 tons) when compared with the first half of 2015, when only one vessel – the *Missouri Reefer* – was active in the Bank.¹⁵³ Such a significant increase in refrigerated cargo capacity from August 2015 suggests a parallel increase in fishing capacity. Unfortunately, the question of just how many Thai fishing vessels moved to the Bank in 2015 along with these reefers is not so easy to answer. Ships under 300 GT are not required to install AIS transmitters under international law (but may be under domestic laws), making Thai fishing boats impossible to track directly through publicly-available remote sensing technologies.¹⁵⁴ The Saya de Malha Bank fleet of 2015, meanwhile, had a mere handful of AIS transmitters operating – none of which actually identified specific Thai fishing vessels – despite some two-fifths of the 76-strong fleet weighing in at over 300 GT.¹⁵⁵

Through interviews with Cambodian crew, Greenpeace investigators had determined that the trawler embroiled in the beriberi scandal of early 2016-- *Sor Somboon 19*-- had fished in the Dog Leg for seven months, where it caught a variety of species, including longtail tuna, prior to moving to the Saya de Malha Bank.¹⁵⁶ In order to explore the movements of other Thai overseas fishing vessels, Greenpeace analysts compared administrative vessel lists dated to different periods over the last six years sourced from Thai, Papua New Guinean and Indonesian authorities. The results revealed that just under 75% of the vessels from the 2015 Saya de Malha Bank fleet had previously been licensed to fish in the Dog Leg, with authorisations clustering around the last two months of 2014 and March 2015.¹⁵⁷

Extending this analysis to Indonesia proved more difficult, largely owing to the use of Indonesian names by Thai-owned joint venture or charter vessels operated through Indonesian shell companies. Nevertheless, multiple lists featured both the Indonesian and former Thai names and revealed that four of the 76 Saya de Malha Bank vessels directly matched with vessels on Thai or Indonesian lists recording Thai-owned boats operating in Indonesia.^{158/159} One of the lists featuring the four vessels was compiled in 2016 by Indonesia's Presidential Task Force to Combat Illegal Fishing – it records fugitive Thai vessels wanted in connection to official IUU fishing and human trafficking investigations. However, discrepancies in gross tonnage figures for these same four vessels (between Thai and Indonesian lists) indicate that even direct name matches may be an artefact of a chaotic swapping and changing of vessel names over the last six years. This underscored the ease of changing a Thai distant water fishing vessel's name prior to the introduction, in late 2015, of a Thai law requiring operators to register vessels with the Department of Fisheries in order to apply for overseas fishing licences.¹⁶⁰

In order to investigate further, Greenpeace expanded this analysis to take into account vessel ownership and ship naming conventions. For example, recent Thai Marine Department records show that *Kor Nava 19* – the third gillnetter which returned to Ranong from the Bank with *Kor Navamongkolchai 1* and *Kor Navamongkolchai 8* – was registered to an owner with an address matching that of a company featured on a much older Thai Department of Fisheries list of vessels operating in Indonesia that had submitted requests for exemption from fisheries import duties.¹⁶¹ One of the vessels on this older list is *Cisadane 09*, formerly *Kor Navamongkolchai 19* – also featured on the 2016 Presidential Task Force to Combat Illegal Fishing list of fugitive Thai vessels.¹⁶²

Using Indonesia's Presidential Task Force list as a baseline reference for the above analysis, Greenpeace was able to identify an additional 11 vessels in the Saya de Malha Bank fleet that were candidates for medium-confidence matches when ownership and ship naming conventions were taken into account. Further to these, there were a total of 19 vessels from the Saya de Malha Bank fleet belonging to three vessel groupings – vessels with the same name and owner but different numbers – which corresponded with 27 fugitive vessels from the Task Force list. Taken together, this comparative analysis of vessel lists suggests that as much as 46% of the 2015 Saya de Malha Bank fleet (35 vessels) could *potentially* have originally fled from Indonesian waters. Almost all of these vessels (32 out of 35) were among those fishing in the Dog Leg immediately prior to moving to the Indian Ocean. This significantly increases the chances of these vessels having initially fished in Indonesian waters, given the parallel movement of 18,177 GT of Thai-owned refrigerated cargo capacity out of Indonesian waters and into the Dog Leg during the period late 2014 to the second quarter of 2015.¹⁶³



A bird's-eye view of reefers along the Thachin River in the town of Samut Sakhon, Thailand's seafood epicentre. Greenpeace tracked hundreds of shipments of seafood from the Saya de Malha Bank to numerous seafood facilities in Samut Sakhon.
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08

Dirty Fishing: Displacement

With evidence pointing to the movement of significant fishing and refrigerated cargo capacity between Indonesia, Papua New Guinea and the Saya de Malha Bank over the last two years, one question remains unresolved: what exactly drove these shifts in distant water operations? The answer to this question lies in the changing circumstances affecting dirty fishing by Thai overseas operators. Greenpeace's analysis suggests that improvements in monitoring, control, surveillance and enforcement (MCSE) among coastal, flag and port states have reconfigured the operations of Thai distant water fishing companies – having the unintended consequence of displacing their environmentally- and socially-unacceptable business models to other under-regulated fishing grounds, such as the Dog Leg and the Saya de Malha Bank.

A history of maritime fishing in Southeast Asia is partly a history of the activities of unscrupulous and/or unregulated Thai distant water vessel operators.¹⁶⁴ This history is one of freewheeling outward expansion of industrial fishing vessels, away from the rapidly depleting Thai fish stocks of the late 1970s. This spread was curbed only by the rising costs to operators of poaching neighbouring waters, as other Southeast Asian countries started to improve surveillance and seized encroaching Thai boats and detained their crew. In the 1980s, after policies introduced by President Suharto confined trawling to Eastern Indonesia, Thai operators moved towards semi-formal access regimes. One historical treatise describes the structure of Thai overseas fishing in the seas around Benjina and Ambon in the early 1990s as follows:

*"Most of those [trawlers] belonging to relatively large companies trawled in the Arafura Sea under more or less formal arrangements...Although their vessels flew the Indonesian flag and therefore enjoyed such benefits as subsidized fuel, the companies shipped their catch to Thailand aboard freezer ships operated by Thai companies. The Thai trawling and fishing companies gave virtually no records of this catch to either Indonesian authorities or their Indonesian [business] partners, whose function in most cases was simply to handle dealings with officialdom."*¹⁶⁵

Fast forward into the new millennium and the circumstances of Thai overseas fishing in Indonesia remained much the same. A 2003 article published in *Inside Indonesia* condemned the widespread corruption and seafood fraud that characterised the "legal looting" of enormous volumes of fish by Thai-owned trawlers in the Arafura Sea.¹⁶⁶ Issues of corruption and fraud – connected to both Thailand and Indonesia – continued to be themes of media reports into the second decade of the millennium.^{167/168} By the time President Joko Widodo's administration came to power in late October 2014, officials were estimating significant economic losses from IUU fishing by foreign-owned fleets from multiple countries.¹⁶⁹ These losses accrued from industrial vessels using destructive and unsustainable fishing gears, operating within restricted areas and illegally transshipping and fraudulently exporting fish caught within the Indonesian EEZ.

" Papua New Guinea [has] taken ownership of their fisheries reforms and now [has] robust legal and policy frameworks in place to fight IUU fishing activities." ¹⁷⁹

Karmenu Vella, European Commissioner for Environment, Maritime Affairs and Fisheries, October 2015

Trawler Sor Somboon 19, docks in port in Ranong after coming back from the Saya de Malha Bank in the Indian Ocean. Thai trawling in the Saya de Malha Bank is entirely unregulated and poses a severe threat to vulnerable and unique seagrass and coral ecosystems.

© Chanklang Kanthong/Greenpeace

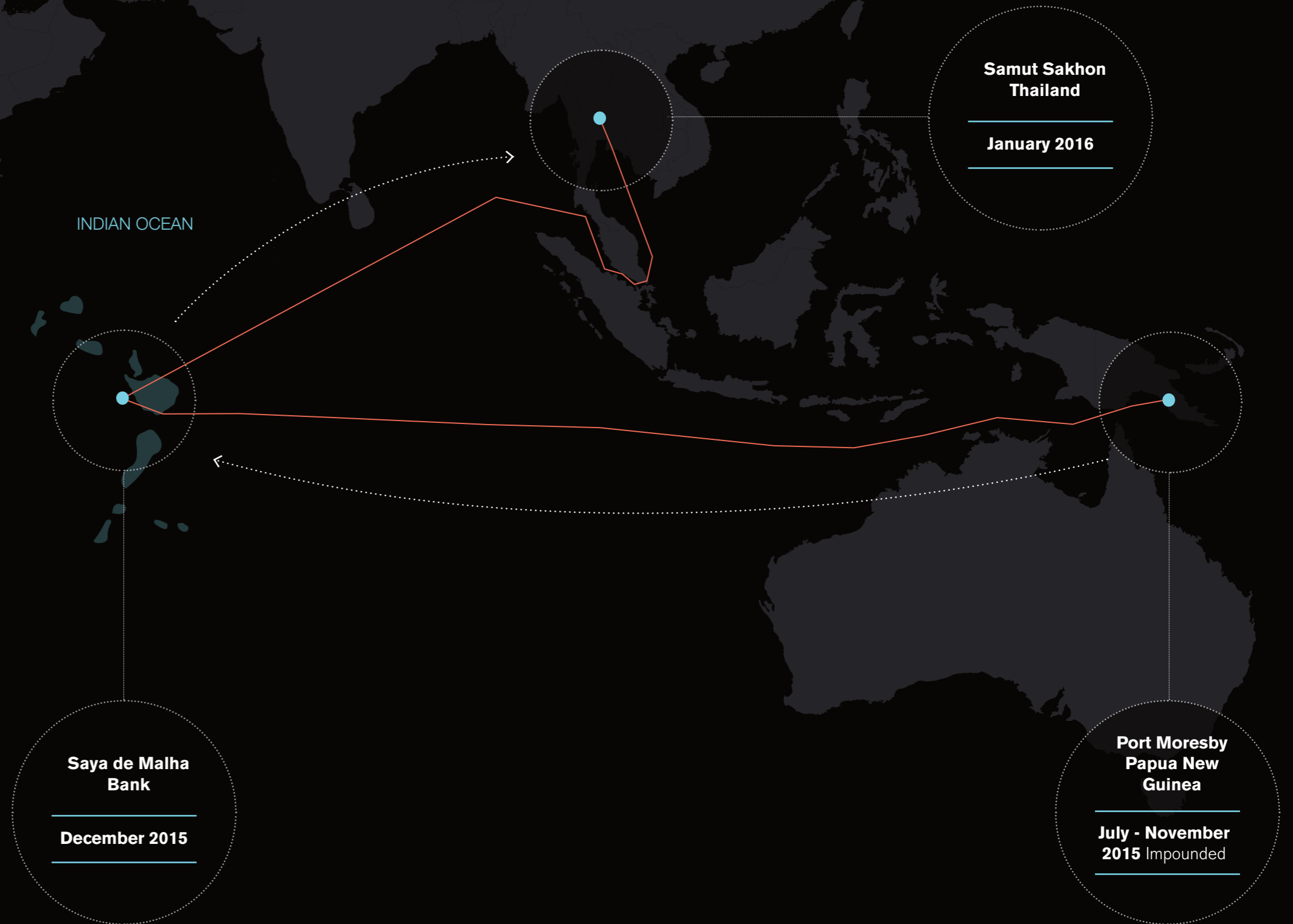
Tracking the Blissful Reefer



Dates Tracked :

July 2015 - January 2016

This map represents a reconstructed track of Blissful Reefer's movements based on AIS data obtained by Greenpeace. Due to irregularities consistent with the possible switching off of the vessel's transponder - this track is the indicative course taken by Blissful Reefer.





A representative from the Command Center for Combating Illegal Fishing (CCCIF) inter-agency taskforce inspects a Thai trawler returning from the Saya de Malha Bank. Almost half of the Thai vessels inspected as they returned from the Saya de Malha Bank were found to be in violation of applicable fisheries and labour laws.

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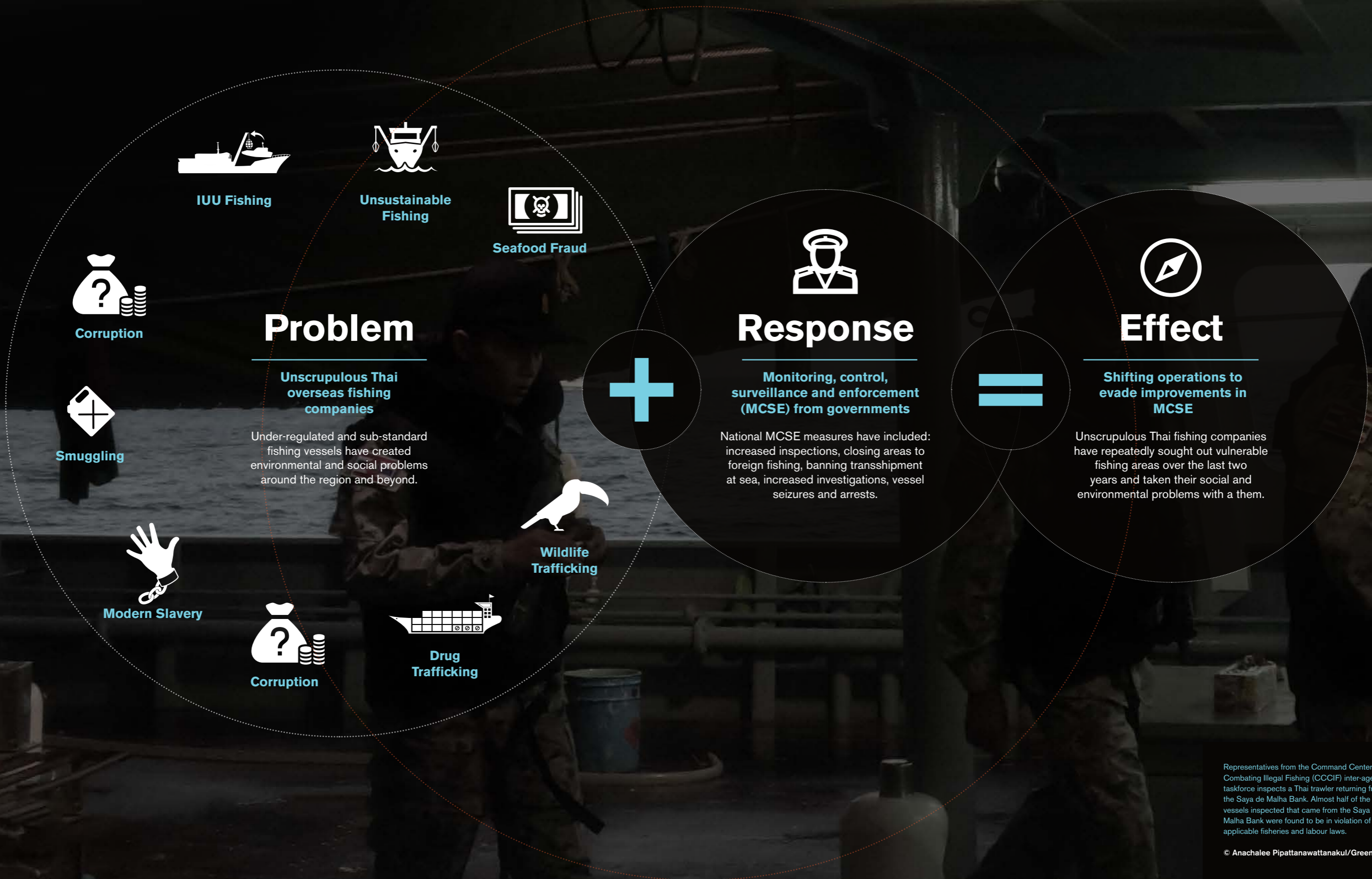
In response to rampant fisheries crime, the Ministry of Marine Affairs and Fisheries under Minister Susi Pudjiastuti imposed a moratorium on the activities of foreign fishing vessels, banned transshipment at sea and prohibited the use of destructive gears such as trawl and seine nets among other measures. More than 1,100 foreign boats were grounded and subjected to a rigorous evaluation process to determine their involvement in IUU fishing activity. Among those that remain grounded are 133 Thai-owned vessels (128 fishing boats and 5 reefers).¹⁷⁰ During these audits, officials identified a range of activities consistent with transnational organised crime, including trafficking in persons, illicit drugs and wildlife, shark finning, fraud and smuggling.¹⁷¹ Indonesia has demonstrated an uncompromising approach to foreign vessels demonstrably involved in illegal fishing in its waters. Between October 2014 and April 2016, Indonesian authorities destroyed a total of 176 foreign fishing vessels in what have become regularly staged demolitions that make headlines across the globe.^{172/173/174}

As outlined in the previous section, AIS data indicates that almost immediately after the start of Indonesia's revolution in fisheries control and enforcement, Thai-owned distant water fishing capacity began to flee the country's waters. Aforementioned records compiled by the Presidential Task Force to Combat Illegal Fishing list 133 fugitive Thai vessels – although the true number may actually be higher. Some of these ships, such as *Asian Marine Reefer 2* (formerly *Silver Sea Line*), the reefer at the center of the March 2015 AP report, would briefly move to other fisheries before returning to port in Samut Sakhon where they have stayed since. Others remained operational, forming a new wave of Thai fishing capacity entering Papua New Guinea's Dog Leg.

The Dog Leg has, for some time, been an area of concern for IUU fishing activity. In 2005, Peter O'Neill, then leader of the Papua New Guinean opposition, expressed concerns in Parliament that scientific or trial licenses had been granted by the Government to a fleet of 58 fishing vessels operating in the Dog Leg in exchange for USD 35,000.¹⁷⁵ Minister for Fisheries Ben Semri denied any knowledge of this fishing operation. In 2010, Papua New Guinea formally opened up its waters to 52 Thai trawlers through bilateral access agreements with Papua New Guinean fishing associations.¹⁷⁶ In 2014, joint Pacific Islands Forum Fisheries Agency surveillance exercises – under Operation Kurukuru – resulted in the seizure of five Thai IUU fishing vessels operating in the Dog Leg.¹⁷⁷ This incident was one of the of the IUU fishing cases by Thai distant water vessels referenced in the European Union's April 2015 decision to yellow card the country.¹⁷⁸

In June 2014, Papua New Guinea received a yellow card on IUU fishing from the European Union.¹⁸⁰ It undertook an extensive programme of fisheries reform that, among other measures, included amendments to legislation providing a framework for the inspection and sanction of foreign-flagged fishing vessels and the closing of the "controversial" Dog Leg fishery.¹⁸¹ As a result of this positive response from the Government, the Commission subsequently lifted the yellow card on Papua New Guinea in October 2015.¹⁸² However, Papua New Guinea's moratorium on fishing in the Dog Leg would not be imposed until August 2015.¹⁸³ This opened a window for Thai operators fleeing the crackdowns in Indonesia starting late 2014 under President Widodo. Between 28 November 2014 and 31 July 2015, more than 80 Thai vessels were licensed to operate in the Dog Leg under a bilateral access scheme.¹⁸⁴ No Thai boats are recorded in the 2016 vessel license list published by the National Fisheries Authority – the majority of those authorised in 2015 having shifted operations to the Saya de Malha Bank as already highlighted in this report.¹⁸⁵

The Issue Today



Representatives from the Command Center for Combating Illegal Fishing (CCCIF) inter-agency taskforce inspects a Thai trawler returning from the Saya de Malha Bank. Almost half of the Thai vessels inspected that came from the Saya de Malha Bank were found to be in violation of applicable fisheries and labour laws.

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09

Dirty Fishing: The Indian Ocean

The Indian Ocean is no stranger to Thai fishing scandals. In April 2010, three Thai vessels – *Prantalay 11*, *Prantalay 12* and *Prantalay 14* – operated by a Samut Sakhon-based tuna firm were hijacked by Somali pirates. A local media report from the time labelled this incident as one of the few examples of pirates “defending” Somalia’s waters.¹⁸⁶ Despite this claim, the vessels had in fact been returning to port in Djibouti when they were hijacked some 1,200 nautical miles off the coast of Somalia in the furthest east of any piracy attack in the previous four years.¹⁸⁷ Nevertheless, media reports noted that none of the vessels had registered with or been authorised by the Indian Ocean Tuna Commission (IOTC) to fish for tuna or tuna-like species, an assertion reflected in historical IOTC records.^{188/189}

In early 2011, *Prantalay 14* was sunk by the Indian Navy off the Lakshadweep Islands shortly before *Prantalay 11* was intercepted and captured by another Indian Naval patrol.^{190/191} Thai and Burmese hostages from aboard the vessels were reported rescued. *Prantalay 12*, however, was beached by the pirates, who continued to hold the crew hostage. One Burmese crew member, Aung Soe, had managed to escape by jumping from the *Prantalay 12* in December 2010, as the vessel fled from the Indian Navy.¹⁹² Rescued but without documents demonstrating his identity, Aung Soe was rendered *de facto* stateless and confined to a police station in Kochi, in India’s Kerala state, where he became the subject of a short documentary film.¹⁹³ More than a year and a half after jumping from *Prantalay 12*, Aung Soe went missing from Kochi – the Indian media subsequently reported that police suspected he had fled across the Indian border to Myanmar.¹⁹⁴

The rest of the crew from *Prantalay 12* continued to suffer in captivity in Somalia. Six men succumbed to illness, five reportedly from beriberi, and the pirates eventually released another 14 Burmese nationals over a year after the hijacking.^{195/196} Four remaining Thai crew members would tragically spend most of the next five years in captivity until February 2015, in what became the longest-running hostage situation in the history of Somali piracy.¹⁹⁷ Maritime piracy analysts calculated that each of the men had lost the equivalent of over USD 40,000 in wages that they would never receive as a result of the incident.¹⁹⁸

In November 2015, a Thai longliner, *Mook Andaman 028*, fell victim to a failed attack by Somali pirates using a hijacked dhow.¹⁹⁹ Analysts noted the unconfirmed possibility that five pirates and one crewmember from the hijacked dhow “went missing during the failed attack on FV *Mook Andaman 028*, and they are presumed dead”.²⁰⁰ Presumably, this incident brought *Mook Andaman 028* to the attention of the Thai authorities, who in January 2016 initiated a counter-IUU fishing sting that resulted in the seizure of six tuna longliners whose authorisations had expired (*Mook Andaman 018*, *Mook Andaman 028*, *Ceribu*, *Yu Long No.6*, *Yu Long No.125* and *Hung Chi Fu No.68*) and the arrest of three Thai company owners as well as four of the captains from the fleet.²⁰¹ At least one of these vessels – *Hung Chi Fu No.68* – appears to have been active in and around the Bank.²⁰²

IUU fishing in the Saya de Malha Bank

A January 2016 Thai government report shows that inspections at sea of 50 fishing vessels returning from the Saya de Malha Bank uncovered 34 separate fisheries infringements aboard 24 different vessels.²⁰³ Most of these infractions related to a lack of valid fishing gear licenses, as was found to be the case in the three at-sea inspections observed by Greenpeace as well as for the two tuna gillnetters Kor Navamonkolchai 1 and Kor Navamongkolchai 8, according to the trafficking survivors interviewed by Greenpeace.²⁰⁴ As mentioned earlier in this report, licensing violations carry heavy penalties under Thai regulations introduced in late 2015 although it is unclear how many, if any, vessels from the Bank fleet have been sanctioned in relation to fisheries infringements. Thailand’s military government had actually prohibited the use of fishing gears other than the gears detailed in a vessel’s license since April 2015.²⁰⁵ The sanctions for violating this military order are one year’s imprisonment or a fine not exceeding THB 100,000 (USD 2,800) or both.²⁰⁶

If most of the vessels fishing in the Bank were operating illegally under Thai laws and regulations, the migration of a bottom trawl fleet to a high seas area of acute vulnerability, unique ecological value and where such fishing activity is not constrained by any conservation and management measures, makes this fishing operation a clear case of unregulated fishing. In August 2016, Thailand’s Director-General of the Department of Fisheries publicly confirmed that the vessels in the Saya de Malha Bank were operating in an area free of regulatory control.²⁰⁷

Unregulated high seas bottom fishing is a major concern to the international community. Numerous instruments, resolutions and declarations committing responsible flag states to ensure their vessels are regulated in a manner consistent with international law have been negotiated and adopted over the past two decades, including the 1995 UN Fish Stocks Agreement, the UN FAO International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing, the UN FAO Port State Measures Agreement, and numerous resolutions adopted by the UN General Assembly.

The UN General Assembly has adopted a series of resolutions since 2006 calling on states to “urgently” address this problem and committing all States whose vessels bottom fish on the high seas to manage such fishing to prevent damage to fragile ecosystems and ensure the conservation of fish stocks through adopting a series of specific management measures, including conducting environmental impact assessments and closing areas to bottom fishing that meet internationally agreed criteria to define vulnerable marine ecosystems.²⁰⁸ The ecological value of the Saya de Malha Bank is such that the case has been made that the Bank itself should be considered a vulnerable marine ecosystem.²⁰⁹

Thailand is not even a member of the Southern Indian Ocean Fisheries Agreement (SIOFA), the RFMO with the legal competence to manage bottom fisheries on the high seas of the Indian Ocean, yet another argument to consider fishing by Thai vessels in this area a case of unregulated fishing. By allowing this fleet to operate without constraints, Thailand is clearly failing to fulfil its responsibilities as a flag state so as to prevent damage to the marine environment and cooperate with other states fishing on the high seas of the Indian Ocean. There are currently no catch limits, gear restrictions, closed areas or cooperation with other states to ensure the sustainability of these fisheries. With more than 20,000 GT of Thai fishing capacity operating in the Bank from mid 2015, it is clear that Thailand is not acting as a responsible fishing state. Under such conditions and until internationally agreed conservation and management measures are put in place and agreed upon with other states fishing on the high seas of the Saya de Malha Bank, Thailand should prevent its vessels from bottom fishing in the area.

Vessels in the Bank fleet fell afoul of regulations established by other regional fisheries management organisations with competence over the area. None of the 76 fishing boats or eight reefers operating in or around the Bank in 2015 are listed in the Indian Ocean Tuna Commission’s (IOTC) historical record of authorized vessels.²¹⁰ Therefore, and at the very least, the three gillnetters known to Greenpeace that were targeting sharks, tuna and tuna-like species are considered to have been operating without required authorizations.²¹¹ According to trafficking survivors interviewed by Greenpeace, the three gillnetters catching and transshipping tuna and tuna-like species in and around the Bank were deploying driftnets of 12-15km in length. The use of large-scale driftnets (defined as nets over 2.5km in length) is banned within the IOTC but permitted within the EEZs of IOTC coastal states subject to appropriate authorizations from those states.²¹² The transfer of tuna, tuna-like species and sharks onto reefers through transshipment at sea is also prohibited within the IOTC, except those between longliners and carrier vessels which meet specific conditions and are under the supervision of qualified fisheries observers.²¹³

The catch from these vessels may also have gone unreported. Recent official submissions to the IOTC indicate that Thai government agencies were unaware of the fact that unauthorized gillnetters deploying large-scale drift nets were catching tuna and tuna-like species, as well as sharks, within the IOTC, transshipping at sea and landing the catch at private ports in Thailand.²¹⁴ It is therefore unlikely that the required traceability documents associated with the tuna landed by these vessels reflects the actual point of origin and fishing method.

10

Scandals in the Supply Chain: Big Fish

For the first time, Greenpeace sheds light on the companies and actors behind overseas Thai fishing operations. Our findings highlight how just a handful of actors have the collective power to progress or arrest reform of the industry.

In 2011, Mauritius notified the IOTC of the activities of Thai gillnetter *Ruang Larp 8*, which was fishing illegally near the Nazareth Bank, some 280 km southwest of the Saya de Malha Bank.²¹⁵ A failure on the part of the Thai government to respond to this case, or provide a report of an investigation into it, prompted the European Commission to include it as a factor in their decision to issue a “yellow card” warning to Thailand in April 2015.²¹⁶ *Ruang Larp 8* has four sister boats: *Ruang Larp 2*, *Ruang Larp 3*, *Ruang Larp 9* and *Ruang Larp 10* – all of which were part of the 2015 Saya de Malha Bank fishing fleet. These four vessels provide as good as any introduction into the complex world of ownership structures within the Thai distant water fishing and seafood processing sectors.

According to Thai Marine Department records, *Ruang Larp 9* is owned by Mr. Somkiat Kitpohkha; *Ruang Larp 3* by Ms. Kamneungnuan Wongkachonkitti; and *Ruang Larp 10* and *Ruang Larp 2* by Mr. Somchai Jettanapornsamran.²¹⁷ Ms. Wongkachonkitti of Samut Prakan in central Thailand is also the owner of tuna gillnetters *Kor Navamongkolchai 1* and *Kor Navamongkolchai 8*, from which the 15 Cambodian trafficking survivors interviewed by Greenpeace were rescued. Leaked records obtained by Greenpeace implicate Ms. Wongkachonkitti as a suspect in the trafficking cases, as did Thai media reports

which also stated that she was already under investigation for another trafficking case in the province of Samut Songkhram.²¹⁸ However, charges were eventually brought against both of the vessel captains and Mr. Jettanapornsamran.²¹⁹ He was arrested by Immigration Bureau officials at Bangkok's Don Meuang airport – returning on a flight from Phnom Penh.²²⁰

Compared to Mr. Jettanapornsamran, Ms. Wongkachonkitti is somewhat of a “Big Fish”. She operates more than 10% of the Saya de Malha Bank fleet registered to two current addresses. The first address is the former premises of the Samut Prakan provincial Office for the Department of Business Development under the Ministry of Commerce.²²¹ The second address, used for both *Kor Navamongkolchai 1* and *Kor Navamongkolchai 8*, is linked to at least five different businesses. One of these businesses, seemingly defunct as of 2014, is K.N.S Trading Co. Ltd., a fishing and reefer logistics company with a registered capital of THB 10 million (USD 285,000).²²² Two more are distant water fishing companies: C.H. & N. Co. Ltd. and Ocean World Seafood Co. Ltd.²²³ A Department of Fisheries list of “fishing vessels exempt from import duties on seafood”, seemingly dated to no earlier than 2009, records 46 fishing vessels owned by these two companies, all operating in Indonesian waters.²²⁴ The list details a further 560 distant water vessels which had

Thai Overseas Fishing Association

Overseas fishing in Thailand is largely coordinated by an industry association named the Thai Overseas Fishing Association (TOFA) in addition to relevant bureaus within the Department of Fisheries. Established in 1986, TOFA represents the interests of 20 member companies, comprising 283 distant water vessels.²²⁷ The association negotiates new access rights to foreign waters for its member companies, but it also serves to coordinate transshipments of catch and supplies among companies.

The structure of the Thai distant water fishing industry incentivises a degree of cooperation among operators to the extent that key assets predominantly owned by larger companies, such as reefers and landing sites designed and equipped for unloading reefer vessels, need to be used by a range of smaller firms willing and able to pay for their services. Ownership at the vessel level also promotes joint investment and partnership, due to the inherent risk and high capital costs involved in overseas fishing.

The TOFA partly exists to facilitate cold chain logistical arrangements and represent the collective interests of different cooperative ventures to the Thai government, key agencies within foreign governments and national and international industry. As outlined in this chapter, the overseas fishing sector is dominated by Sino-Thai family business groupings, with diverse portfolios of commercial holdings distributed across relatives. This means that ownership tends towards businesses in different sectors and also enterprises across the seafood supply chain: from wild capture and reefers, landing sites and cold chain logistics to cold storage, processing and value-added facilities supplying export markets.

all registered with the Department to request exemption from paying import duties on fish caught in Indonesian, Burmese, Indian, Omani, Bangladeshi, Iranian and Yemeni waters.

As a stakeholder in almost a tenth of the sizeable distant water fleet featured in the Department of Fisheries list of roughly six years ago, Ms. Wongkachonkitti is a significant player in Thailand's overseas fishing business. On June 9 2016, Ms. Wongkachonkitti registered the Thailand Sea Fisheries Association (TSFA) in Samut Prakan province, in which she serves as Treasurer.²²⁵ One of the TSFA's stated objectives is to support and assist its members in addressing obstacles to Thai seafood enterprises inside and outside of the country. Ms. Wongkachonkitti registered the TSFA with two associates: her husband, Thongchai, as TSFA President and owner of *Ruang Larp 9*, and Mr. Somkiat Kitpohkha, as Vice-President.²²⁶

Mr. Somkiat Kitpohkha's business interests are principally located in the nearby province of Samut Sakhon, the seafood epicentre of Thailand. Mr. Kitpohkha runs reefers through Century Reefer Co. Ltd. – including the longest-running Bank vessel, *Missouri Reefer* – and, along with five relatives, one of the province's seven private ports: Century Thachin Co. Ltd.^{227/228} Together, Mr. Kitpohkha and four of his relatives operate almost

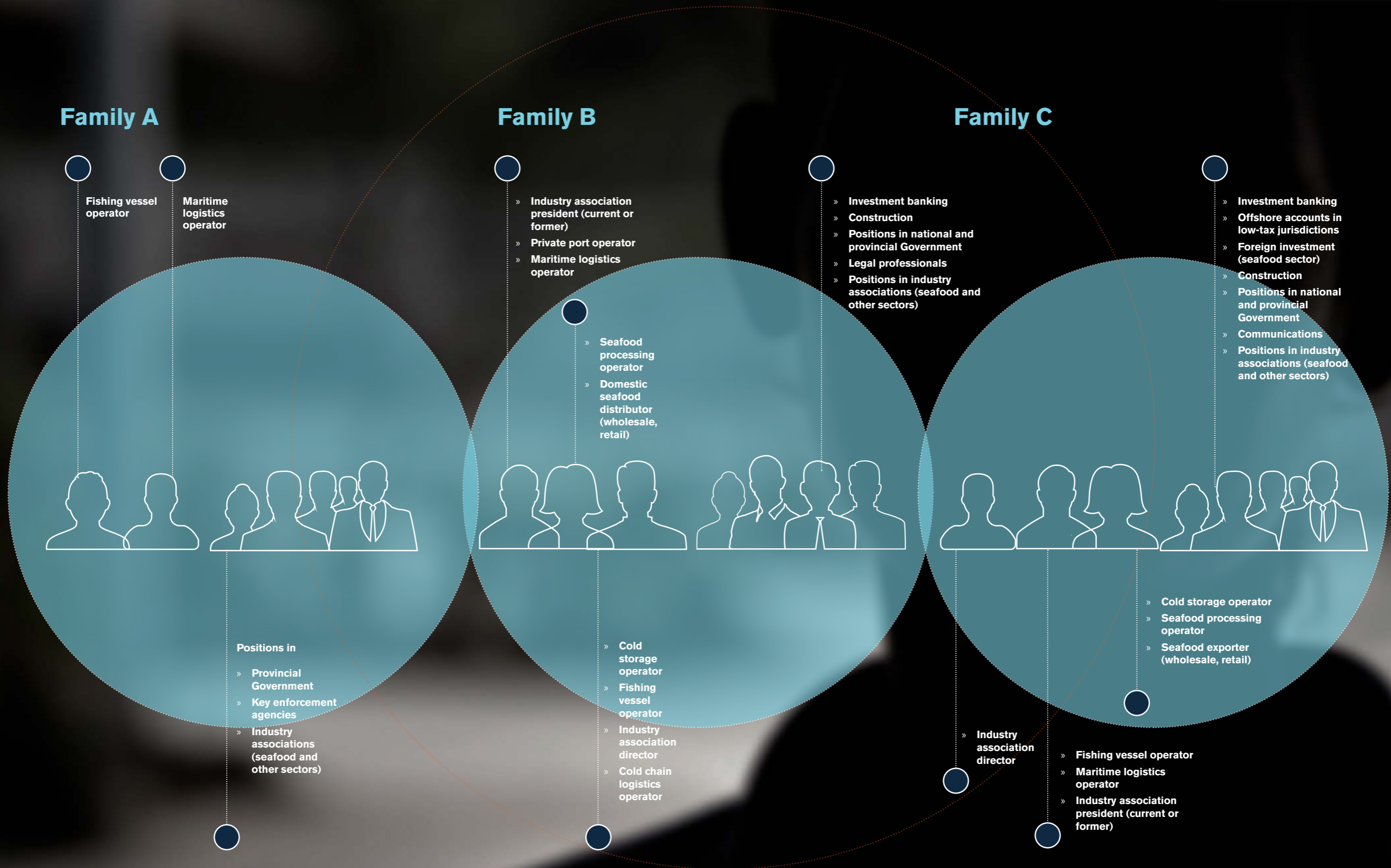
one-fifth of the vessels in the Saya de Malha Bank fleet.²²⁹ Mr. Kitpohkha's fishing operations were called into question in March 2015, when he was featured in the Thai press denying allegations that two of his vessels (*Century 4* and *Century 7*) were fishing illegally nearby to the Indonesian and Papua New Guinean EEZ boundaries.²³⁰ Both vessels were blown up by the Indonesian authorities on charges related to IUU fishing in December 2014.²³¹

In the TSFA, Kamneungnuan and Thongchai Wongkachonkitti and Somkiat Kitpohkha are joined by Mr. Phuwanat Chaocharoenphat and Mr. Suphanat Chaocharoenphat, serving as Registrar and Secretary respectively.²³² Together, these two individuals operate almost one-fifth of the Saya de Malha Bank fleet.²³³ Their vessels include the five trawlers which returned with *Sor Somboon 19* to Ranong in January 2016 – the vessels to which Greenpeace investigators were denied access by representatives of the company and which included two vessels aboard which beriberi outbreaks involving at least two hospitalisations and one fatality occurred. Thongchai Wongkachonkitti, Suphanat Chaocharoenphat and Somkiat Kitpohkha co-own reefer company MI Expeditors (Thailand) Co. Ltd., registered in 2008 to the same address as Kamneungnuan Wongkachonkitti's fishing outfits: K.N.S Trading Co. Ltd., C.H. & N. Co. Ltd. and Ocean World Seafood Co. Ltd.²³⁴

Thai seafood family business groupings

"Khean" (alias name), a trafficked migrant worker, and his crew, sailed for 28 days from Thailand to the Saya de Malha Bank in Indian Ocean. The crew was forced to work for 21-22 hours a day. In January 2016, Thai authorities rescued "Khean" along with another 14 Cambodian victims of trafficking from two fishing boats in Ranong. These boats were ordered back to port from th

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" Most of the operators or the captains, they're not like that. I think those stories [about human trafficking], a lot of them are not true." ⁸²

Aphisit Techanitisawat, President of the Thai Overseas Fishing Association

The Thai-owned Blissful Reefer is docked in the port of Samut Sakhon. After years operating in slavery and IUU fishing hotspots across Southeast Asia, Blissful Reefer moved to the Saya de Malha Bank. As seafood tainted by human rights abuses and IUU fishing arrived in port from this reefer, Greenpeace investigators tracked it through the supply chains of numerous export-oriented companies.

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In November 2015, Greenpeace initiated a sustained monitoring programme of the eight Thai-owned Bank reefers using an AIS tracking platform. Over the next three months, as five of the reefers arrived in Samut Sakhon from the Bank to unload, Greenpeace surveillance teams documented 386 separate shipments – some 5,000 tonnes of tuna, mackerel and other seafood, including so-called “trash fish” – from different private landing sites in the city. Tracking teams followed 37% (144) of these shipments direct to 23 major seafood processing, cold storage, surimi production and fishmeal facilities across the province, as well as to Thailand’s largest wholesale commercial seafood market (see Appendix 3).

Fish from at least two of the reefers from which Greenpeace tracked shipments were directly linked to vessels known to be tainted by rights abuses, including human trafficking, and fisheries infringements, such as IUU fishing, although – as outlined in this report – much of the Bank fleet was operating in the same manner. The 15 trafficking survivors from Ms. Wongkachonkitti’s tuna gillnetters were able to recall that they had transshipped with three or four reefers during their 13 months at sea, including *Patsorn* and a reefer “owned by Chainavee”- which they met “one or two months” before their rescue on 27 January 2016. According to AIS data, *Sea Network*, *Sirichai Reefer* and *Blissful Reefer* were all in the Bank during this period. Of the three vessels, only *Blissful Reefer* is owned by an individual from the same family which operates the “Chainavee” companies and vessels: Mr Wanchai Saengsukiam.²³⁶

During an interview with Greenpeace investigators in January 2016, the captain of *Sor Somboon 19* stated that the last time the vessel met a reefer in the Bank was on or around the 15th of December 2015.²³⁷ AIS data indicates that the only Thai reefer situated in the Bank at that time was *Sirichai Reefer*. While visiting two piers in Ranong in January 2016, Greenpeace also documented Bank trawlers *Sor Somboon 19* and *Sor Sapsingthai 20* unloading. The vessels were supplying trucks belonging to two Samut Sakhon-based cold chain logistics companies also encountered during surveillance and tracking operations from port. A third truck belonging to Chainavee Cold Storage Co. Ltd. was documented parked next to *Sor Sapsingthai 20* as it unloaded. During inter-agency inspections at sea, captains of the three other Bank trawlers – *Supphermnavee 2*, *Supphermnavee 48* and *Chainavee 17* (all registered to Wichai Saengsukiam) – reported transshipping with *Blissful Reefer* and *Wisdom Sea Reefer* (both registered to Wanchai Saengsukiam).

Decades ago, a seafood empire was established by Mr. Wanchai Saengsukiam’s parents, whose five children and their families now operate most of the ventures. Two individuals, Mr. Wanchai Saengsukiam and Mr. Wichai Saengsukiam, operate just over a quarter of the Saya de Malha Bank fleet through two registered addresses linked to the men’s Chainavee Group and Seavic Group holdings – including at least one vessel that are of interest to the Indonesian government in connection with an investigation.^{238/239} A confidential source in Samut Sakhon reported to Greenpeace that around 10 migrant workers had been hospitalised and at least one corpse quietly collected by authorities as a beriberi-affected distant water fishing vessel allegedly owned by “Chainavee” arrived in port in January 2016 – most likely referring to the cases which escaped media attention outlined earlier in this report.²⁴⁰

The Thai Department of Fisheries import duty exemption list included 18 fishing vessels formerly operating in Indonesia owned by two companies. Mr Wanchai Saengsukiam and Mr. Wichai Saengsukiam each sit on the board of one of these companies, along with four other relatives.^{241/242/243} One of these addresses is registered to Chainavee Cold Storage Co. Ltd., to which Greenpeace followed 9% of all tracked shipments. Mr. Wichai Saengsukiam, owner of Chainavee Cold Storage Co. Ltd., is a former President of TOFA who currently serves as an Honorary Advisor and Executive Director to the body.²⁴⁴ A considerable number of fishing vessels operating in the Saya de Malha Bank in 2015 are registered under Wichai’s name (including the three trawlers for which Greenpeace observed official inspections), as well as *Chainavee Reefer* through a Panama-based company.^{245/246} Wichai holds minor shares in two lucrative real estate investment companies in the retail and hotelier sectors.²⁴⁷

Mr. Wanchai Saengsukiam, heads the Seavic Group of fishing and seafood processing operations, including at least six reefers (one of which is *Blissful Reefer*) several Bank fishing vessels and a hotelier company.^{248/249/250} Mr Wanchai, a former TOFA President, was also a Senator, serving as First Vice-Chairman in the Senatorial Committee on Agriculture and Cooperatives until his term finished in 2011.²⁵¹ A National Anti-Corruption Commission report values his and his wife net worth at THB 335 million (USD 9.5 million).²⁵² A third brother, Suwanchai, was educated at the National Defence College, an ultra-elite Thai institution.²⁵³ Suwanchai is a member of the committee of the Thai Chamber of Commerce and Board of Trade Thailand and is also President of the Warehouse, Silo and Cold Storage Business Association.^{254/255} In 2008, a charitable foundation run by his own family nominated Suwanchai for a senatorial seat.^{256/257}

Mr. Wichai Saengsukiam’s Chainavee Group own a commercial wholesale distribution point in Thailand’s biggest seafood market, Talay Thai (Mahachai Ruamjai Pattana Co. Ltd.), of which the family matriarch was previously Chairwoman.²⁵⁸ Greenpeace investigations tracked at least 14 shipments of Bank seafood to Talay Thai. A relative of Mr. Wichai Saengsukiam is currently listed on the Board of Directors.²⁵⁹ Another relative of Mr. Wichai Saengsukiam runs Sirikhun Seafood Co. Ltd., a commercial wholesaler established in the early 1970s supplying an extremely wide range of seafood products, including longtail tuna and Indian mackerel. The company website notes that it is a top five sub-contractor for Thai Union Frozen Food PLC and also supplies Gourmet Market and Home Fresh Mart stores in top Thai shopping malls.^{260/261}

The largest portion (21%) of shipments tracked from the five Bank reefers by Greenpeace went to the compound of trader and distributor Niwat Fishing Co. Ltd., the company exposed by AP as a (now former) supplier to Thai Union in 2015.²⁶² On the board of Niwat Fishing Co. Ltd. is Ms. Supangmat Leuangsomboon.²⁶³ A relative of Ms. Leuangsomboon, Mr. Panya Leuangsomboon, is better known as one of the co-owners of Silver Sea Reefer Co. Ltd. – a company made globally infamous by AP’s reporting in 2015.²⁶⁴ Following AP’s investigation, Mr. Leuangsomboon denied any involvement in human trafficking in connection to an investigation by the Thai authorities into an overseas fishing vessel he co-owns.²⁶⁵

The next largest number of shipments (15%) were sent to Mahachai Marine Foods Co. Ltd., a seafood processing and cold storage company. Mahachai Marine Foods Co. Ltd., a company with four relatives of Mr. Panya and Ms. Supangmat Leuangsomboon on its board.²⁶⁶

At least ten truckloads of Bank fish went to Aor Sirichai Cold Storage Co. Ltd., an integrated landing site and cold storage facility located adjacent to Niwat Fishing Co. Ltd.²⁶⁷ According to *Inside Indonesia*, as early as 2003, the “Sirichai company”, or the Sirichai Group, were being associated with the “legal looting” of Indonesian fish stocks in the Arafura Sea amidst an environment of corruption and seafood fraud outlined earlier in this report.²⁶⁸ Around the same period, the Sirichai Group entered into a security arrangement with a company sub-contracted to the Somali coast guard. A 2011 book on Somali piracy describes the security company, known for protecting the interests of foreign clients over and above local fishing communities, as “law enforcer, trade commissioner and independent contractor” running “what could be described as a maritime protection racket”.²⁶⁹ Official communications following an incident aboard a Sirichai Group vessel which brought the relationship to a close, describe the company’s security detail as “Puntland State Police”.²⁷⁰ The Sirichai Group own three of the largest Bank fishing vessels, one of its largest reefers, a private landing site and the aforementioned cold storage facility among other fisheries businesses.^{271/272/273}

Mr. Wicharn Sirichai-ekawat served alongside Mr. Wanchai Saengsukiam as Chairman in the Senatorial Committee on Agriculture and Cooperatives, remaining a Senator until the military coup in 2014.^{274/275} He was nominated for a senatorial seat by the National Fisheries Association Thailand (NFAT).²⁷⁶ A National Anti-Corruption Commission report values the net worth of Wicharn and his wife at THB 499 million (USD 14.2 million).²⁷⁷ Wicharn is one of the most prominent individuals in the entire Thai fishing sector. Both he and his brother have held multiple top positions in both TOFA and NFAT.^{278/279}

As Honorary Advisor to NFAT, Wicharn frequently represents the association in multilateral discussions on human rights issues in the Thai seafood industry. Wicharn was on the board of the Marine Stewardship Council (MSC) for five years, before stepping down in 2008, and currently serves as an Honorary Advisor to the Thai Fishmeal Producers Association.^{280/281}

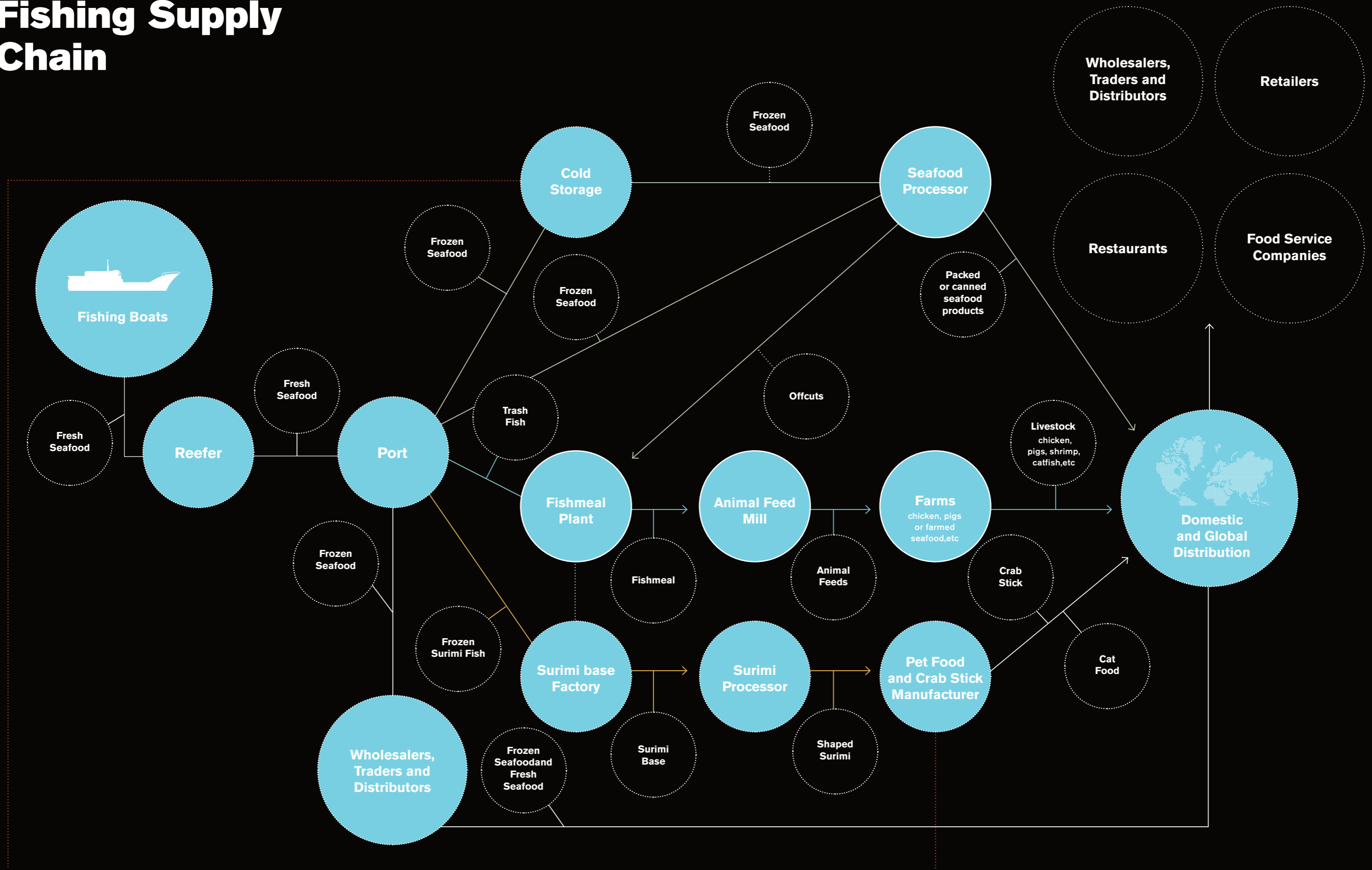
Shipments of fish from the Bank were also tracked to multiple companies owned by individuals from another prominent family: Andaman Surimi Industries Co. Ltd. and Anusorn Mahachai Cold Storage Co. Ltd.^{283/284} Mr. Anusorn Techanitisawat, the family patriarch, is credited with having been the first industrial operator to fish in Indonesian waters, with a fleet of vessels under the (now defunct) Apirachai Fishing Co. Ltd.^{285/286} Although much of Anusorn’s fishing and reefer capacity has since been sold on to other operators, some of his relatives have maintained a diverse portfolio of seafood interests, including: cold storage, surimi production, ice production, fishmeal and canned mackerel under the brands Zap-D, Hi Chef and Hero.²⁸⁷ Mr. Aphisit Techanitisawat is the incumbent President of TOFA, currently serving his second term.²⁸⁸ In July 2016, Aphisit passed the selection process as a Mediator in Thailand’s Central Labour Court.²⁸⁹ Mr. Apichai Techanitisawat is the Managing Director at Anusorn Mahachai Cold Storage Co. Ltd., to which Greenpeace tracked Bank seafood. He is on the Board of Directors of the Thai Fishmeal Producers Association and was recently appointed President of the Samut Sakhon Provincial Federation of Thai Industries.^{290/291} Along with another relative, Apichai is also on the board of another surimi plant, Anusorn Mahachai Surimi Co. Ltd.²⁹² Meanwhile, Anucha Techanitisawat is CEO of Andaman Surimi Industries Co. Ltd., another company to which Greenpeace tracked Bank seafood. Anucha is also a Director in the Thai seafood exporter’s club – the Thai Frozen Foods Association (TFFA).²⁹³



Burmese workers sort freshly-landed fish at the public fishing port in Ranong, southern Thailand.

© Chanklang Kanthong/Greenpeace

The Thai overseas Fishing Supply Chain



11

Scandals in the Supply Chain: Net to Plate

Despite several years of action from Government and industry to clean up Thailand's seafood supply chains, Greenpeace investigations in 2016 demonstrate that seafood tainted by human rights abuses and IUU fishing have continued to enter the supply chains of Thai producers exporting products to almost every continent on Earth. Such companies include global-facing firms such as Kingfisher Holdings Ltd., owned by the world's largest seafood conglomerate: Japan-based Mahuru Nichiro Corporation.²⁹⁴ Kingfisher, one of the companies implicated in AP's slavery investigation in 2015, produces squid, shrimp and mackerel products for export to the US, Europe and Australia.²⁹⁵ US trade data shows seafood from Kingfisher being shipped to companies supplying restaurant chains, food service companies, wholesalers and retail.²⁹⁶

Thai purchasers of Bank seafood include at least 10 companies that are members of the Thai Frozen Foods Association (TFFA) and other industry bodies qualifying them for export.^{297/298} They also include five companies that are accredited for export to the European Union.^{299/300} The continued entry of seafood tainted by human rights abuses and IUU fishing into the supply chains of companies that are members of various Thai industry associations is in direct contradiction with pledges made on 16 June 2015 by those associations to eliminate such practices as well as an MOU signed by industry associations with the Thai government on 15 January 2016 making similar commitments.^{301/302/303}

Among the pledges were promises to not buy raw material from vessels failing to comply with the law and to ban members found to be connected to IUU fishing or human rights abuse, thereby revoking their export privileges.

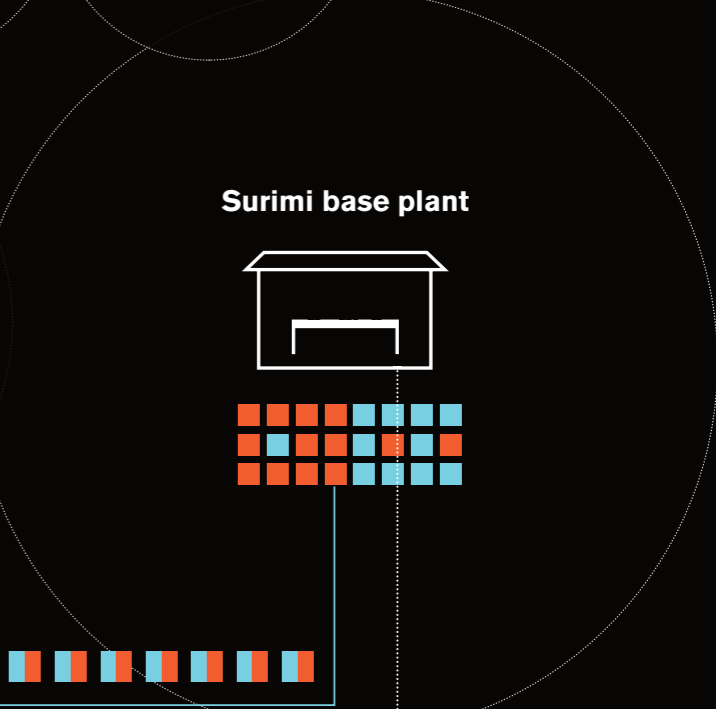
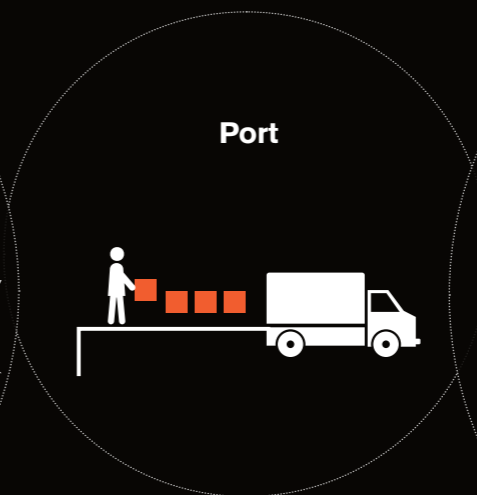
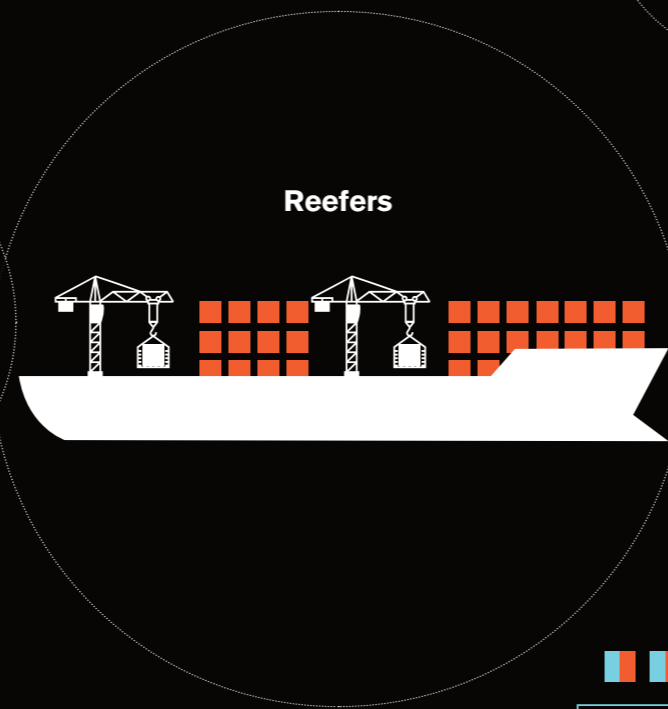
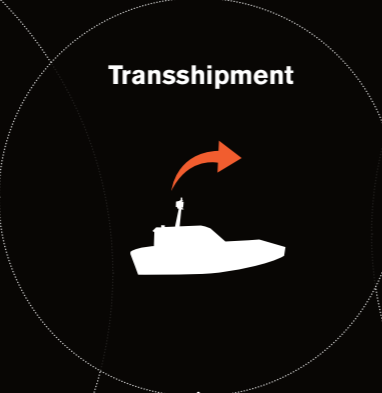
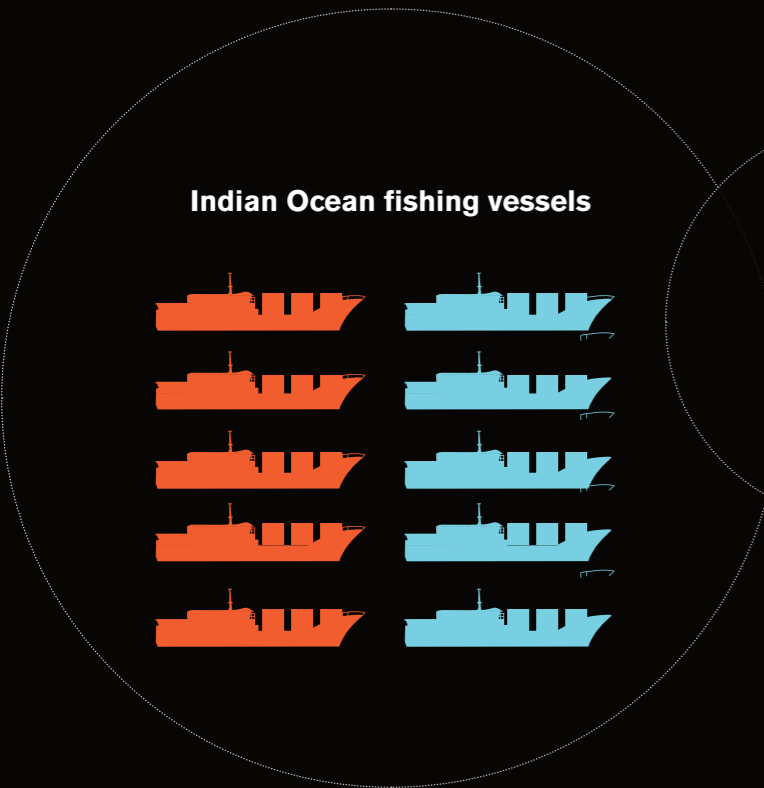
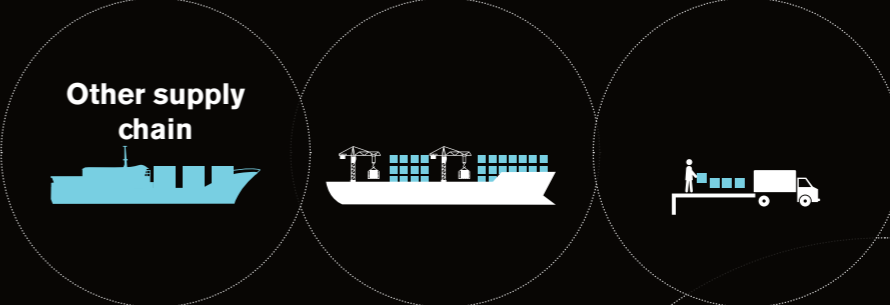
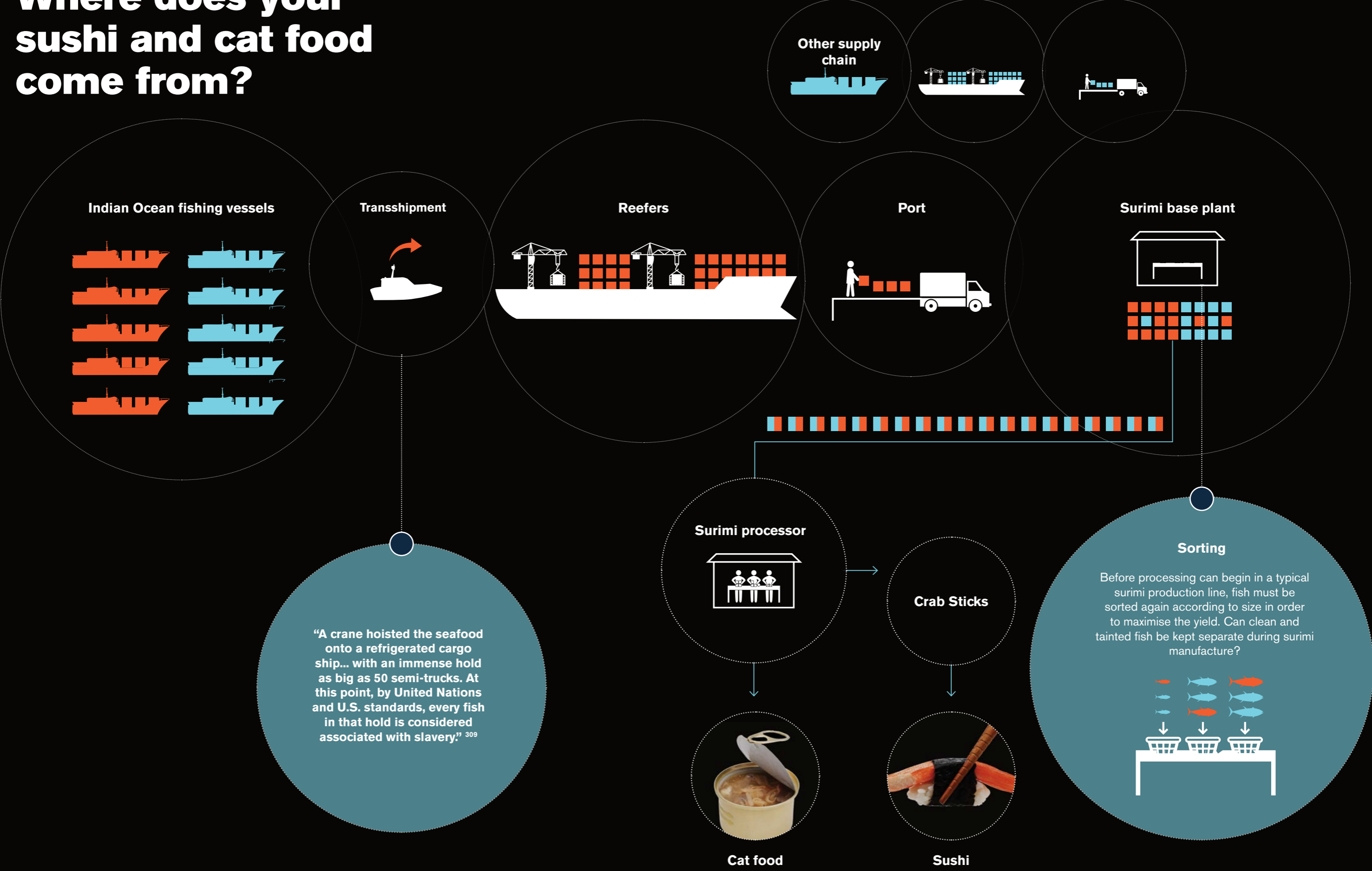
Surimi was one of the highest-risk supply chains encountered during the course of Greenpeace's investigation. Surimi, a processed fish meat paste, is widely-consumed in a variety of forms across Asia and is most commonly known in North American and European markets as imitation crab or "crab sticks", where it may be used as an ingredient in sushi, fishcakes and pet foods. Greenpeace supply chain documentation reveals fish from the Bank being supplied directly to Thailand's third, fourth, fifth, and sixth largest surimi producers.^{304/305} In 2014, 57% of Thai surimi base (unshaped block form) was exported, with 9% going to Europe, while 38% of Thailand's processed surimi products were exported.³⁰⁶ In 2015, as a result of the moratorium in Indonesia and the Thai government's controls on IUU fishing, Thailand almost doubled its imports of surimi base and overall production was expected to fall 25% year on year.³⁰⁷ Offcuts and byproduct from surimi processing often go into fishmeal production, which is subsequently used as an ingredient in different animal feeds. For example, Greenpeace documented fishmeal from surimi producers sourcing Bank fish being supplied to United Feeding Co. Ltd., a large producer of swine feed.³⁰⁸



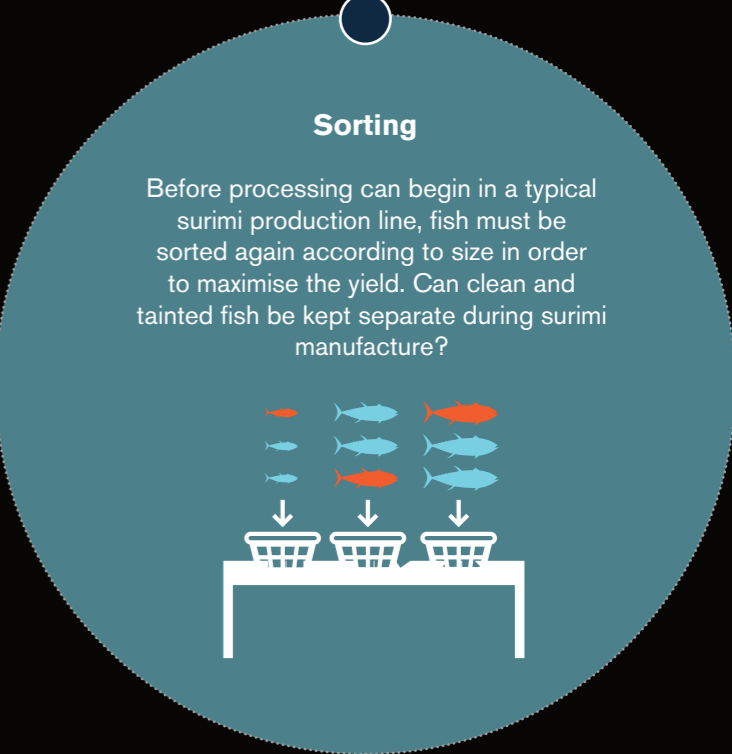
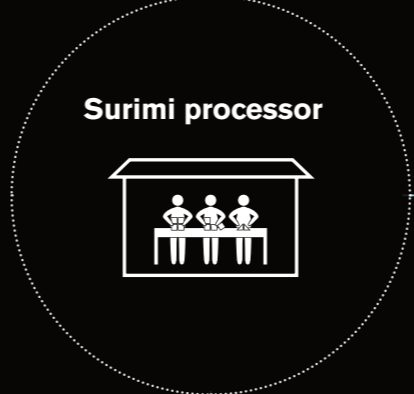
Seafood sold at the public fishing port in Ranong, southern Thailand. The border province of Ranong is an important fishing and trading port and is also a key human trafficking route from nearby Myanmar.

© Chanklang Kanthong/Greenpeace

Where does your sushi and cat food come from?



"A crane hoisted the seafood onto a refrigerated cargo ship... with an immense hold as big as 50 semi-trucks. At this point, by United Nations and U.S. standards, every fish in that hold is considered associated with slavery."³⁰⁹



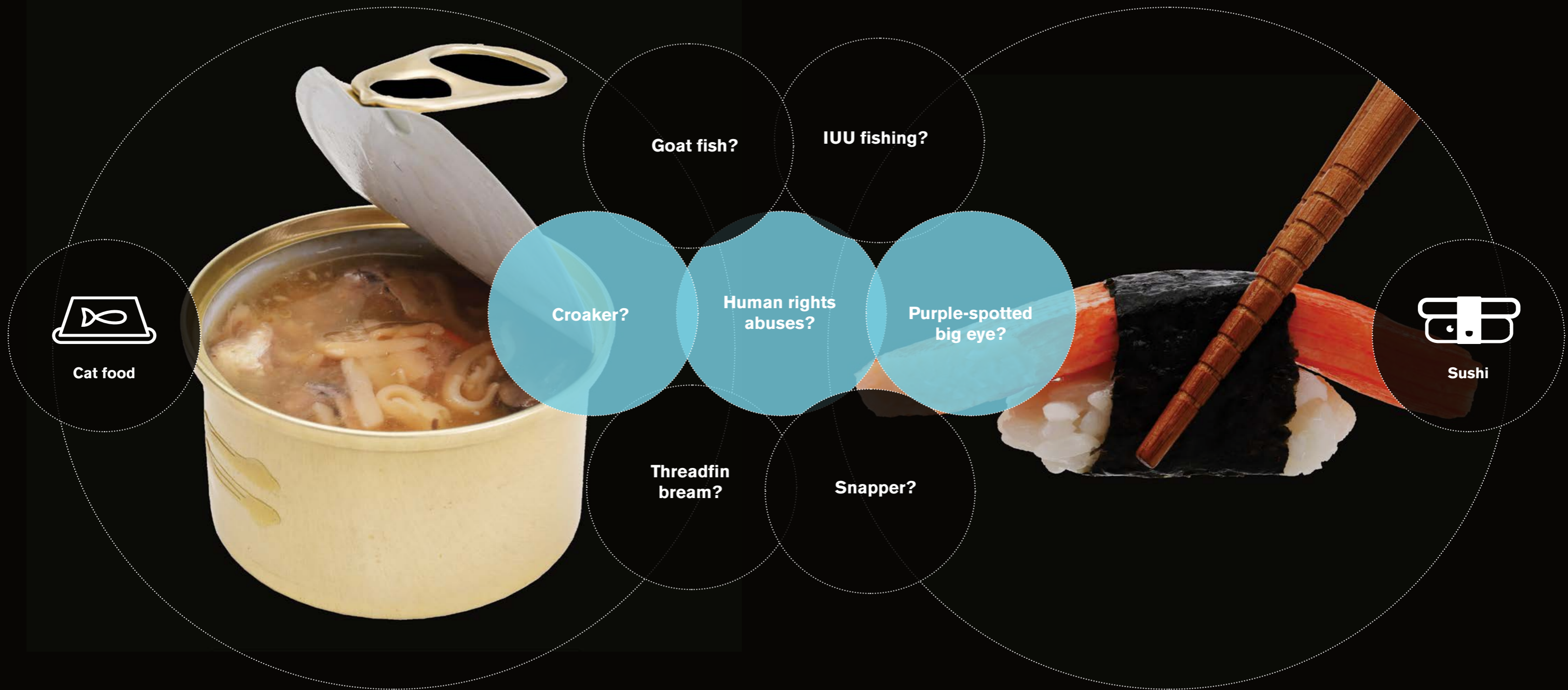
Cat food



Sushi

What's in your sushi and cat food?

Surimi, a Japanese word for ground meat, is a minced fish paste made from cheap fish and mixed with sugar and sorbitol- a sweetener. It is available in many shapes, forms and textures and is restructured to look like higher priced crab, scallop, shrimp or lobster.



In early 2016, a reefer carrying tainted fish from Bank trawlers, including *Sor Somboon 19*, unloaded in Samut Sakhon. Some of the breams, snappers, pony fish, lizardfish, goatfish, croaker and purple-spotted big eye would be delivered to Pacific Marine Foods Co. Ltd., a surimi base producer located in the city. In a written reply responding to Greenpeace's findings, Pacific Marine Food Products Co. Ltd. confirmed that it had sourced from vessels of concern, listed by Greenpeace during the period August 2015 to January 2016, but did not specify which vessels.³¹⁰ Greenpeace investigations identified Pacific Marine Food Products Co. Ltd. as a supplier to two local factories manufacturing processed surimi products for a range of wholesalers, supermarkets and restaurants across Asia-Pacific, Europe and North America.^{311/312/313}

Greenpeace also uncovered surimi base from that same surimi base producer being supplied to Lucky Union Foods Co. Ltd. (LUF), a surimi processor and subsidiary of Thai Union.^{314/315/316} In a meeting with Greenpeace in November 2016, representatives from Thai Union confirmed that Pacific Marine Food Products Co. Ltd. had supplied LUF during the period of concern highlighted by Greenpeace's investigations.

According to US trade records, from August 2015 to August 2016, LUF supplied imitation crabmeat to seven Asian foods distributors and food service companies across the country.³¹⁷ These include market leaders such as Rhee Bros. Inc., a supplier to several major restaurant chains, retailers (including Costco) and food service companies.³¹⁸ Four of the food service companies supplied by Rhee Bros. Inc. ranked low in an August 2016 Greenpeace report scoring them on responsible sourcing, traceability and three other criteria.^{319/320} Another US-based customer of LUF, Advanced Fresh Concepts Corp., claims to offer products at over 3,800 franchises worldwide as North America's "premier grab-and-go sushi and Asian cuisine company".³²¹

Thai Union's annual report reveals that LUF also supplies shaped surimi to Thai Union Manufacturing Co. Ltd. (TUM) for use in pet food, while LUF trucks were documented by Greenpeace offloading product at a plant owned by TUM.³²² TUM produces pet foods under different labels, including the global brands Fancy Feast and Iams. Records of shipments from TUM to the US show that surimi is used in at least five Fancy Feast (owned by Nestlé Purina PetCare) cat food recipes and one Meow Mix (owned by The J.M. Smucker Company) recipe produced for distribution across North America.³²³ In a meeting with Greenpeace in November 2016, representatives from Thai Union confirmed that surimi from LUF is used in cat food brands manufactured for Nestlé Purina PetCare and The J.M. Smucker Company.³²⁴

Greenpeace investigations determined that gourmet Fancy Feast "broths" and/or canned Meow Mix cat food containing surimi produced by TUM were being sold nationwide from at least 25 outlets including four out of five of the largest retailers in the US (Walmart, Kroger, Albertsons and Ahold-Delhaize) as well as leading petcare stores.³²⁵

Twenty-nine similar or identical luxury cat food recipes were also identified in the UK, Italy, Japan, Australia, New Zealand and Taiwan – distributed under Nestlé Purina PetCare's

Fancy Feast, Mon Petit and Gourmet ranges.³²⁶ Through initial research, Greenpeace found 25 of these Nestlé Purina PetCare recipes with packaging identifying them as products of Thailand or Thai Union Manufacturing Co. Ltd. on the shelves of 15 leading retailers in these six market countries.³²⁷ Two further surimi-containing cat food recipes manufactured by Thai Union and distributed under the Bellotta cat food brand were found to be on sale at major retail outlets in Thailand.³²⁸

Due to ongoing concerns with the Thai seafood industry and practices highlighted in this report, Nestlé has taken strong action and committed to ban transshipment at sea from the company's global supply chains.³²⁹

In response to Greenpeace's findings, Thai Union stated that while surimi from LUF was used in the big brand cat foods identified by Greenpeace, and although LUF was supplied by Pacific Marine Food Products Co. Ltd. during the period of concern highlighted by Greenpeace's findings, the surimi supplied to LUF by Pacific Marine Food Products Co. Ltd. at no point included raw material sourced from any of the 11 vessels (including five reefers) highlighted in a Greenpeace letter alerting them to the investigation findings.^{330/331}

In their response, Thai Union referred to a traceability system in place to control the source of raw material used in LUF's surimi supply chain, highlighting the use of Marine Catch Purchasing Documents (MCPDs) by all Thai fishing vessels supplying raw material to surimi base manufacturers in LUF's supply chain. MCPDs detail where fish was landed and by which vessel, incorporating data from other records such as fishing logbooks. They are produced and signed by fishing vessel captains at the point of sale, subsequently verified by the Department of Fisheries and travel with the raw material throughout the chain of custody. Thailand's Royal Ordinance on Fisheries, B.E. 2558 (2015), effective December 2015, legally requires fishing ports and markets to prepare MCPDs.

Thai Union's response was not the only reply to Greenpeace which pointed to the use of MCPDs. In written responses to letters from Greenpeace, Pacific Marine Food Products Co. Ltd., Kibun (Thailand) Co. Ltd. and Andaman Surimi Industries Co. Ltd. all referred to requirements for suppliers to produce MCPDs, as did the Thai Frozen Foods Association (TFFA) and the Thai Tuna Industry Association (TTIA) in reference to their members' operations.^{332/333/334/335/336} Surimi base producers Andaman Surimi Industries Co. Ltd. and Pacific Marine Foods Co. Ltd. stressed that their suppliers were operating in accordance with applicable laws through the provision of MCPDs, Marine Catch Transshipment Documents and overseas fishing licences and that they were satisfied with their ability to trace raw material back to source.

The fact that multiple entities point to the use of MCPDs in response to Greenpeace's findings raises an uncomfortable question about the purchasing practices of companies ostensibly committed to keeping Thai seafood supply chains free of IUU fishing and human rights abuses.^{337/338/339} Why, at least in the context of news about human rights abuses aboard Bank vessels which reached the public domain in a timely fashion, were MCPDs unable to keep tainted seafood out of the supply chains of these companies?

Despite Thai Union's response, the reliance on MCPDs as the cornerstone of their surimi traceability system is problematic. Currently, the majority of traceability measures in the Thai seafood industry are paper-based and rely heavily on assurances from interested parties such as captains and vessel operators. This has the result of making them susceptible to forgery, particularly where the Department of Fisheries and other Government agencies are still in the process of establishing capacity to adequately verify fishing logbooks, captain's statements and the other paper-based records which underpin MCPDs. The current system of verifying such records is arguably too resource-intensive to be sustainable. Fishing logbooks are, more or less, estimates from vessel captains and are typically filled-in by hand – often after the vessel has returned to port – and submitted to the Department of Fisheries. In order to adequately verify these records under the current system, the Department of Fisheries would need to witness the unloading and weighing of the catch (as well as any transshipments at sea that occurred, to verify Marine Catch Transshipment Documents), whilst also analysing the Vessel Monitoring System (VMS) track to ensure that the fish was caught in the area and, at the time, detailed in the logbook. A 2016 Humanity United and Freedom Fund report assessing recent Thai government actions to address traceability notes the following of the fishmeal supply chain:

"...companies face [fundamental challenges] to ensure traceability, fisheries management, and assurance that their products are not involved in abuses of human rights or the environment. The prevalence of transshipments at sea means that illegal vessels that rarely return to port are able to contribute to the supply of raw material entering the market. Due to a lack of checks in port and high numbers of private landing sites, many of which sell directly to local fishmeal plants, much of Thailand's fish is processed before it is recorded. The only documentation available comes from purchasing documents; however these documents are generated by businesses and vessel operators that are incentivised to underreport their volumes or conceal the original catching vessel's identity, thus making this documentation extremely vulnerable to fraud and misreporting. With catches often amalgamated from many vessels to produce fishmeal, it is almost impossible to determine which vessels originally caught the raw material and there is a high probability that at least some of it will be tainted with slave labour."³⁴⁰

The nature of surimi manufacture itself also presents additional challenges to seafood traceability. Before processing can begin in a typical surimi production line, fish must be manually sorted by species, cleaned and then sorted again according to size. This sorting is conducted to increase the speed of mechanical processing and raise the yields of the fillets in the production line. Surimi production, by definition, involves the mixing and combination of fish into processed meat pastes. While batch management and inventory systems obviously exist in almost any surimi plant, likewise do the economics of surimi manufacture which incentivise the wholesale processing of fish of similar sizes to improve efficiency, yield and profit. Unless companies such as Pacific Marine Foods Products Co. Ltd. can offer watertight, demonstrable guarantees to their customers that there is zero risk of batches of raw material being mixed

during the surimi production process, the efforts by companies such as Thai Union to establish robust traceability systems are fundamentally undermined.

Other high risk supply chains identified in Greenpeace's research were linked to cold storage. Cold storage facilities act as vertically-integrated components of large firms as well as private companies re-selling or storing raw material for third parties. According to the Department of Fisheries, the layout and inventories of cold storage facilities in Thailand reflect the coding system applied to fish landed in Thai ports and authorities inspect cold storage facilities at least twice annually.³⁴¹ However, as argued earlier in this report, it is evident that tuna, tuna-like and shark species caught through IUU fishing were landed in Thai ports while official documents indicate that Thai authorities were not aware of the origins of such seafood – suggesting it had not been reported accurately by companies.³⁴²

In a written reply to a letter outlining Greenpeace's findings in relation to the three gillnetters allegedly engaged in IUU fishing and human trafficking, the Thai Tuna Industry Association (TTIA) acknowledged that the tuna, tuna-like and shark species from the three vessels "potentially" went unreported in MCPDs and Marine Catch Transshipment Documents.³⁴³ With some cold storage facilities capable of storing seafood for multiple years, watertight traceability systems are a necessity for securing sustainably- and ethically-sourced seafood. In the absence of reliable traceability documents, the risk that tainted tuna has entered the supply chains of processors manufacturing canned tuna or pet foods containing tuna for global markets significantly increases.

TUM produces cat foods containing other fish, as well as other canned seafood items, for both domestic and foreign big brands. In addition to tuna, some of these products also contain fish species such as mackerel, snapper, grouper and bream that can be found in the Bank. In 2016, Greenpeace documented multiple pickups by Thai Union of unknown stock from a cold storage facility known to be supplied seafood from Bank reefers. The trucks were recorded entering a TUM plant. According to sources interviewed by Greenpeace, similar supply relationships exist between Thai Union and other target cold storage facilities stocking seafood from the Bank.³⁴⁴ In a written reply to Greenpeace in November 2016, Thai Union expressed confidence in their cold storage traceability systems, noting that "[we] do utilize some of the cold storage facilities listed, and have full traceability for the fish stored in these facilities using catch documentation and our own traceability system tracking from the vessel and throughout storage and processing."³⁴⁵

As of September 2016, Greenpeace investigations indicated that seafood from Thai trawlers engaged in unregulated fishing in the Bank continues to end up in the supply chains of major Thai producers, including Pacific Marine Food Products Co. Ltd, the surimi plant that supplied the Thai Union subsidiary producing shaped surimi for global cat food brands and crab sticks across the US.

12

Conclusion

In July 2016, the Thai Department of Fisheries announced that it had dispatched the first two newly-trained fisheries observers to the distant water fishing fleet.³⁴⁶ Within the month, *Missouri Reefer* was back in the Bank, where Thai trawlers continue to operate today, supplying largely the same group of major producers with Bank seafood as late as September 2016. According to a Department of Fisheries official interviewed by Greenpeace in mid 2016, Thailand does not have fisheries cooperation agreements with Mauritius or Seychelles.³⁴⁷ Therefore, current fishing activity in the Bank is in apparent contravention of Government regulations requiring Thai-flagged overseas vessels to operate only in the waters “under the jurisdiction of a coastal state with which Thailand has signed an MOU on fisheries cooperation” or high seas areas “under the control of a regional fisheries management organisation (RFMO) or international organization of which Thailand is a member”.³⁴⁸ For Thai trawlers operating in the Bank, there is no such international body.

With the return of reefer-assisted Thai overseas fishing in mid 2016, it is arguably only a matter of time before dirty and scandalous business models are once again exported elsewhere. The Department of Fisheries announcement in July came on the back of news that Thailand had negotiated a fisheries cooperation agreement with Fiji that would include the issuing of licenses to Thai vessels.³⁴⁹ Greenpeace research and investigations over the last 12 months highlight several key ways in which we can start turning the tide on tainted seafood landed by the Thai distant water fishing industry.

The movement of a rogue Thai fleet from fishery to fishery highlights the tendency for problematic operations to be displaced to new areas to evade improvements in monitoring, control, surveillance and enforcement (MCSE). But it also underscores a need for greater regional cooperation on MCSE to constrict the spaces in which such operations are able to flourish.

One of the targets for greater regional cooperation should be the risky practice of transshipment at sea, which can facilitate the laundering of illegally-caught fish and the transport of trafficked workers and enables long-term fishing operations that can keep exploited or abused crew isolated at sea indefinitely. As highlighted by the Government's own investigation, the deaths and hospitalisations among the crew of *Sor Somboon 19* and the other beriberi trawlers from the Bank were in part a direct result of a business model based on transshipment at sea.

Thailand's temporary controls on overseas transshipment at sea outlined earlier in this report are far from enough.³⁵⁰ These controls should not only be permanent but additional scrutiny should be applied to transshipments at sea with research and policymaking moving towards eliminating the practice altogether.

The government must meanwhile fulfil its responsibilities as a flag state and ensure that appropriate management and conservation measures are in place before fishing in the Saya de Malha Bank.

That such a great deal of the Thai overseas fishing and marine logistics capacity lies in the hands of a relatively small number of operators indicates the importance of key individuals in progressing or arresting overall reform of the sector.

That the “Big Fish” are typically part of family business groupings with interests across the entire seafood supply chain and beyond into other sectors and even politics, underscores the importance of sensitive, well-thought-out policymaking aimed at the long term.

Sub-standard operators must meanwhile be pursued by the authorities and brought to justice. By seizing the six tuna longliners and prosecuting their owners for illegal fishing in early 2016, the Government has already demonstrated that it is willing and able to exercise powers under new laws to bring overseas operators into line.³⁵¹ Now authorities should ensure that all distant water operators who violated laws and regulations in the Saya de Malha Bank and beyond are held accountable and subject to applicable sanctions.

Removing the worst offenders from the water will have a net positive effect on oceans and people while also helping to reduce environmental pressures from overfishing that have been driving modern slavery and illegal fishing in Thailand.³⁵²

Regular and improved inspections are an integral part of Thailand's ongoing efforts to tackle human rights abuses and IUU fishing.³⁵³ The inspections of *Supphermnavee 2*, *Supphermnavee 48* and *Chainavee 17* observed by Greenpeace and the experiences of trafficking victims aboard *Kor Navamongkolchai 1*, *Kor Navamongkolchai 8* and *Kor Nava 19* all highlight issues with current approaches to at-sea inspections. To help weed out the bad operators, the Government should improve inspection frameworks and further intelligence-sharing efforts with other countries and civil society as part of the enforcement response.

Producers, buyers, industry associations and consumers must also squeeze the rotten fish out of the market. Greenpeace's supply chain investigations demonstrate that tainted seafood has continued to enter supply chains exporting to global markets throughout 2016, including an unacceptably high risk that such fish has ended up in products manufactured by Thai Union, and end up as stuffing for sushi, or as cat food.

Product traceability and transparency in procurement are vital parts of combatting seafood fraud and the laundering of fish caught through IUU fishing and forced labour. Question marks around the traceability of surimi raw material from beriberi-affected trawlers and tuna, tuna-like and shark species from the IUU gillnetters using trafficked labour undermine confidence in current Thai government traceability systems.

Responsibility ultimately, however, rests with industry.

The fact that fish caught by exhausted men, likely victims of forced labour, dying of archaic diseases can still have a high chance of entering the supply chains of some of the globe's best known cat food brands underscores the need for significantly improved systems for procuring and tracing seafood. Watertight assurances on procurement and traceability, from suppliers to customers and from brands to consumers, are essential. Both Thai Union and Nestlé are already involved in initiatives to improve seafood traceability.^{354/355} In response to ongoing concern around these issues, Nestlé Purina PetCare demonstrated strong leadership by pledging to implement a ban on transshipment at sea to help end IUU fishing and human rights abuses against seafaring workers.

Thailand is at the threshold of making real progress towards the elimination of dirty fishing and human rights abuses from its export-oriented seafood supply chains. However, without sustained scrutiny of, resolute controls on and true accountability within the Thai overseas fishing sector, hard-won reform risks sliding into obscurity and irrelevance. Private, public and third sector stakeholders both inside and outside of Thailand all have a responsibility to work together to ensure that only sustainably- and ethically-produced Thai seafood reaches shelves, freezers, sushi bars and cat bowls around the world.

13

Recommendations

All stakeholders

- Immediately and permanently re-instate the controls on overseas transshipment at sea or commit to banning the practice through enforceable mechanisms, as appropriate.
- Introduce a moratorium on unregulated and destructive fishing practices such as bottom trawling in vulnerable high seas areas such as the Saya de Malha Bank or commit to banning such activity through enforceable mechanisms, as appropriate.
- To remove stores of said seafood from the market where possible and issue formal notices to buyers where not.
- To revoke the membership and export privileges of companies proven to have purchased or supplied tainted seafood.

Thai Overseas Fishing Association (TOFA), Thai Sea Fisheries Association (TSFA) and Thai Frozen Foods Association (TFFA):

- To immediately suspend the membership of all companies implicated in allegations of IUU fishing and/or labour abuse, pending the conclusion of internal investigations. Liaise with key enforcement agencies and civil society organisations to conduct these internal investigations and revoke the membership of companies shown to have engaged in IUU fishing and/or labour exploitation.
- To require all members to stock vitamin supplements and provide detailed guidelines for food, nutrition and health aboard distant water fishing vessels, including a checklist of medical supplies. Issue standards to all members based on:
 - Ministerial Regulation on Safety, Hygiene and Wellbeing for Maritime Workers, B.E. 2558 (2015)
 - Ministerial Regulation on Protection of Marine Fisheries Workers, B.E. 2557 (2014)

Thai industry associations

Thai Overseas Fishing Association (TOFA), Thai Frozen Food Association (TFFA), Thai Food Processors Association (TFPA), Thai Shrimp Association (TSA), Thai Tuna Industry Association (TTIA), Thai Fishmeal Producers Association (TFMPA), Thai Feed Mill Association (TFMA):

- To fulfil commitments made under the MOU on eliminating illegal fishing and human rights abuses from Thai seafood supply chains signed on the 15 January 2016 with the Royal Thai Government by undertaking an immediate and transparent purchasing audit to determine the supply chain routes of seafood from the Saya de Malha Bank tainted by IUU fishing, exploitation and abuse.

Royal Thai Government

- To maintain up to date, publicly accessible lists of all member companies and all overseas fishing and support vessels operated by those companies.
- To maintain up to date, publicly accessible lists of all licensed distant water fishing and support vessels, clearly indicating the company or vessel owner, fishing gear, authorisation period and area of operation.
- To extend the current temporary controls on transshipment at sea outside of Thai waters indefinitely. Scrutinise Vessel Monitoring System (VMS) data to verify observer reports and declarations concerning transshipment at sea. Allocate resources to research the economics of phasing out transshipment at sea over a defined timeframe.
- To introduce a regulation requiring Automatic Identification System (AIS) transmitters to be installed and maintained on all distant water fishing and support vessels, requiring them to be transmitting at all times. Include provisions applying appropriate sanctions for switching off or tampering with AIS equipment during non-fishing activity and requiring return to port in case of malfunction.
- To develop the capacity of inspectors (at sea and in port) to screen for indicators of exploitation and abuse. Ensure that workers aboard distant water fishing vessels are able to regularly report on their working conditions through both formal and informal channels (e.g. through civil society) in a manner entirely free from coercion or intimidation.
- To build on existing legislation protecting the safety and welfare of fishers by issuing clear standards on food and nutrition aboard distant water fishing vessels and regulations requiring vitamin supplements to be provided to all crew. Work with industry to establish a designated “hospital boat” scheme for distant water fleets.
- To enhance the targets stated in the National Plan of Control and Inspection 2015-2019 by inspecting 100% of Thai-owned refrigerated cargo vessels calling into Thai ports (including those not flagged to Thailand) under Port-In, Port-Out (PIPO) and Port State Measures inspection frameworks. Inspections should be supported by digital databases integrating VMS data and fisheries observer reports where available.

14

Appendices

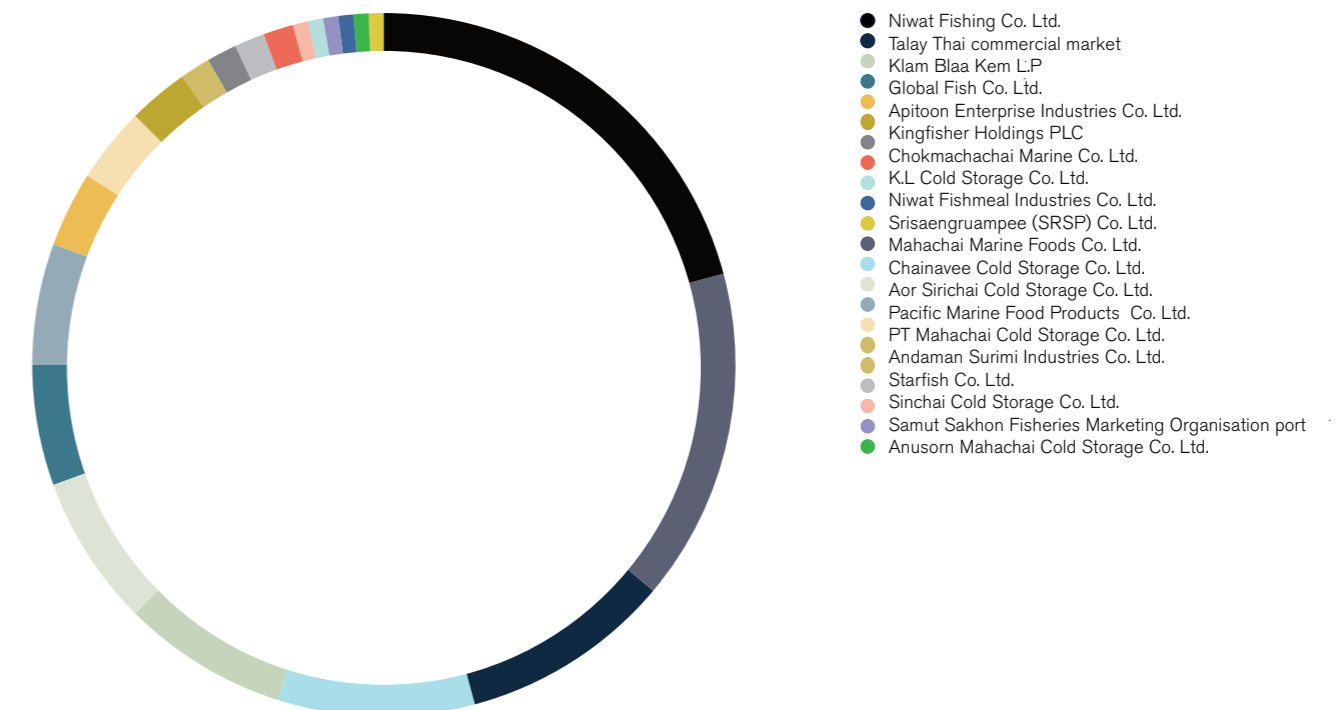
1. Thai fishing vessels operating in the Saya de Malha Bank investigated by Greenpeace

Name	Flag	Gross tonnage	Fishing gear	Registered owner
Kor Navamongkolchai 1	Thailand	160 GT	Driftnet	Ms. Kamneungnuan Wongkachonkitti
Kor Navamongkolchai 8	Thailand	158 GT	Driftnet	Ms. Kamneungnuan Wongkachonkitti
Sor Somboon 19	Thailand	296 GT	Trawl	Mr. Wichai Pattanawitayanont
Supphermnavee 2	Thailand	798 GT	Trawl	Mr. Wichai Saengsukiam
Supphermnavee 48	Thailand	483 GT	Trawl	Mr. Wichai Saengsukiam
Chainavee 17	Thailand	383 GT	Trawl	Mr. Wichai Saengsukiam

2. Thai-owned reefers operating in the Saya de Malha Bank, Aug 2015 to Jan 2016

Reefer Name	IMO Number	GT	Flag
Blissful Reefer	5296795	334640000	Honduras
Chainavee Reefer	7637591	334567000	Honduras
Missouri Reefer	7635878	567293000	Thailand
Patsorn	7713230	567391000	Thailand
Precious 9	7811513	334816000	Honduras
Sea Network	7637553	567487000	Thailand
Sirichai Reefer	8211837	567196000	Thailand
Wisdom Sea Reefer	7637527	334674000	Honduras

3. Shipments tracked from five Bank reefers by destination, November 2015 - January 2016, does not reflect volume of shipment



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