



West Africa Task Force
Working together to stop illegal fishing

TRANSHIPMENT

ISSUES AND RESPONSES
IN THE FCWC REGION





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THE WEST AFRICA TASK FORCE BRINGS TOGETHER THE SIX MEMBER COUNTRIES OF THE FISHERIES COMMITTEE FOR THE WEST CENTRAL GULF OF GUINEA (FCWC) – BENIN, CÔTE D’IVOIRE, GHANA, LIBERIA, NIGERIA AND TOGO – TO TACKLE ILLEGAL FISHING AND STOP THE TRADE IN ILLEGALLY CAUGHT FISH.

The Task Force is facilitated by the FCWC Secretariat and supported by a Technical Team that includes TM-Tracking (TMT) and Stop Illegal Fishing with funding from Norad. By actively cooperating, by sharing information and by facilitating national interagency working groups the West Africa Task Force is working together to stop illegal fishing.

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Norad

The images in this publication appear for the purposes of illustrating fishing and related operations only and are not intended to convey or imply, directly or indirectly, that any illegal, unreported and unregulated (IUU) fishing activities had taken place or were otherwise associated with this image. This report draws on a range of material including an analysis of reefer operations conducted by TMT and Global Fishing Watch for the FCWC, base maps from MarineRegions and tracking data from exactEarth, IHS Markit and Global Fishing Watch.

TRANSHIPMENT: ISSUES AND RESPONSES IN THE FCWC REGION

TABLE OF CONTENTS

FOREWORD	04
1 REGION	07
1.1 Introduction	08
1.2 Countries	10
1.3 Trade	24
1.4 Fish	28
2 TRANSHIPMENT	39
2.1 Introduction	40
2.2 Transhipment and reefers	48
2.3 Transhipment and containers	96
2.4 Transhipment and factory vessels	104
2.5 Transhipment and converted fishing vessels	110
2.6 Transhipment and small transport vessels	114
3 FCWC TRANSHIPMENT ISSUES AND RESPONSES	121
3.1 Transhipment issues	122
3.2 Transhipment responses	132
ACRONYMS	136
SOURCES	138



FOREWORD

The need to understand the role that transshipment plays in fisheries and blue economies, and applying this understanding to improve how we manage transshipment has been internationally recognised. This resulted in the United Nations Committee on Fisheries requesting the Food and Agriculture Organization (FAO) to lead the development of international guidelines on fisheries transshipment, with the aim to improve the clarity and application of transshipment management and oversight. This process is currently ongoing.

In the Fisheries Committee for the West Central Gulf of Guinea (FCWC) we have been monitoring and researching the dynamics of transshipment for several years. In 2017 our Conference of Ministers adopted an at-sea transshipment strategy to help tackle illegal, unreported and unregulated (IUU) fishing. While this was a significant policy milestone, implementing the strategy has opened our eyes to how complex transshipment is and how it links our different fish stocks, fishers, and vessels across the region and beyond.

Transshipment of fish and seafood is critical to our region in many ways. For example, we import 24 times more fish by volume than we export – most of this fish is destined to feed some of our region's 280 million people. It is our most populous countries – Nigeria, Côte d'Ivoire and Ghana – that import the bulk of this fish at a cost of around one United States Dollar (USD) per kilogram. In contrast our exported fish is sold for an average of eight USD per kilogram. With this insight in mind, we have analysed transshipment to determine options for how we can respond to the challenges and capitalise on the opportunities that transshipment brings to the FCWC region. We will prioritise feeding our people while protecting our fisheries, and we must do this aware of the pressure on fish stocks due to IUU fishing, overfishing, climate change, harmful subsidies and population growth.

We, like many others, have taken note of the international concern over the role of transshipment in facilitating illegal fishing, trade in illegally caught fish, and fisheries related crime, particularly human trafficking and modern-day slavery, but we have noted that this link has often been hard to validate or quantify. Therefore transshipment – what is moved and how it is moved – is at the heart of this report. We explore this within our regions' context and needs (Section 1) and then relate this to our research into transshipment operations (Section 2). These feed into the main transshipment issues (Section 3), which include an interesting mix of challenges that we face.

For example, the opaqueness and conflicts in definitions which contribute to gaps in what is monitored and what is not monitored. Or the imbalance between regulatory frameworks resulting in well-regulated and unregulated fisheries operating side-by-side, with monitoring, control and surveillance (MCS) implementation focused mainly on the regulated fisheries. Or a similar concern impacting on our ability to implement ecosystem-wide monitoring due to the diversion of MCS effort away from low-value high-nutrition fisheries to focus on the traceability of exported fish destined for the developed world markets and discerning consumers. Another issue of great concern is the patchwork in accountability, with port States assuming the majority of responsibility and work in respect to monitoring transshipment through port State measures, while flag State accountability and contribution is lacking.

The common threads that run through these and other issues, help to identify common solutions – such as the need for better and more inclusive information sharing and accountability and for holistic and ecosystem-based approaches to how we think about, regulate and monitor transshipment in the FCWC region.

Finally, may I note that the FCWC welcomes the focus being placed on transshipment by the FAO. This report is our contribution to this discussion, it provides insight and background to explain why we consider that the international transshipment guidelines should be inclusive and balanced if they are to be internationally useful and beneficial.

Seraphin Dedi Nadjé

Secretary General of the FCWC



01

REGION

1.1	Introduction	08
1.2	Countries	10
1.3	Trade	24
1.4	Fish	28



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1.1 INTRODUCTION

Demand for fishery products

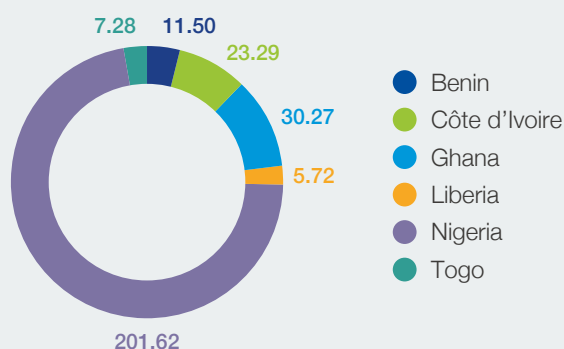
There are around 280 million people living in the FCWC region, with the majority, 72% living in Nigeria (see Figure 1.1). Their wellbeing – life expectancy, access to education and standard of living – is generally relatively poor.

The global human development index (HDI) places the FCWC countries at between rank 138 for Ghana and 175 for Liberia, based on the global scale of 1 to 189 (see Table 1.1, 1 being the highest and 189 the lowest). In addition, Benin, Liberia, and Togo are classified by the United Nations as least developed countries (LDCs) indicating low socioeconomic development.

Fighting this poverty to improve people’s lives requires multi-dimensional responses. For the FCWC this starts with securing sustainable fishery resources to form the basis of social and economic development, including ‘blue growth’.

The FCWC countries report catches of around 1.5 million tonnes of marine fish and fishery products per year. This provides a vital source of nutrition and a commodity that underpins socioeconomic development. If the fisheries of the region are well-managed these important renewable resources will help to provide not only for today’s population, but for future populations, estimated to become 500 million people by 2050.

Figure 1.1: Population of FCWC countries (in million, 2020)





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Table 1.1: Development indicators for the FCWC and neighbouring countries (2020)

	Population (million)	HDI rank	Life expectancy at birth	Gross national income per capita (USD)
FCWC countries				
Benin	11.50	158	61.8	3,254
Côte d'Ivoire	23.29	162	57.8	5,069
Ghana	30.27	138	64.1	5,269
Liberia	5.72	175	64.1	1,258
Nigeria	201.62	161	54.7	4,910
Togo	7.28	167	61.0	1,602
Landlocked neighbouring countries				
Burkina Faso	21.68	182	61.6	2,133
Chad	14.55	187	54.2	1,555
Mali	20.40	184	59.3	2,269
Niger	21.85	189	62.4	1,201

Imports of fish and seafood into the region are another important element in regional nutrition and employment creation, estimated in 2017 to value around 1.5 billion USD and 1.5 million tonnes of product. These imports are not only important for FCWC countries, but also for nutrition in the landlocked neighbouring countries of Burkina Faso, Chad, Mali, and Niger. Fish imported through the FCWC ports provides vital nutrition for the almost 80 million people living in these countries – four of the poorest countries in the world (see Table 1.1).

Transshipment of fish and seafood are driven by a combination of the location of the demand for different types of fishery products linked to the location where the fish and seafood are caught, resulting in fish being one of the world's most traded commodities.

For example, fish is the leading agricultural export commodity on the African continent contributing about 19% volume (tonnes) and 6% by value.¹

The following section explores the six countries that make up the FCWC region, with a closer look at their fish and fisheries, their fishery imports and exports, their major ports and the legal framework that may influence how they deal with transshipment. It provides an overview of regional trade in fish and fisheries products and introduces the main groups of traded fish and seafood.

¹ https://www.riob.org/sites/default/files/documents/AfDB%20Blue%20Economy%20Flagship%20_%20Briefing%20Note_November%202018.pdf

1.2 COUNTRIES

CÔTE D'IVOIRE

Licensed vessels: **143**
 Flagged fishing vessels: **33**
 Flagged reefers: **0**

PORTS

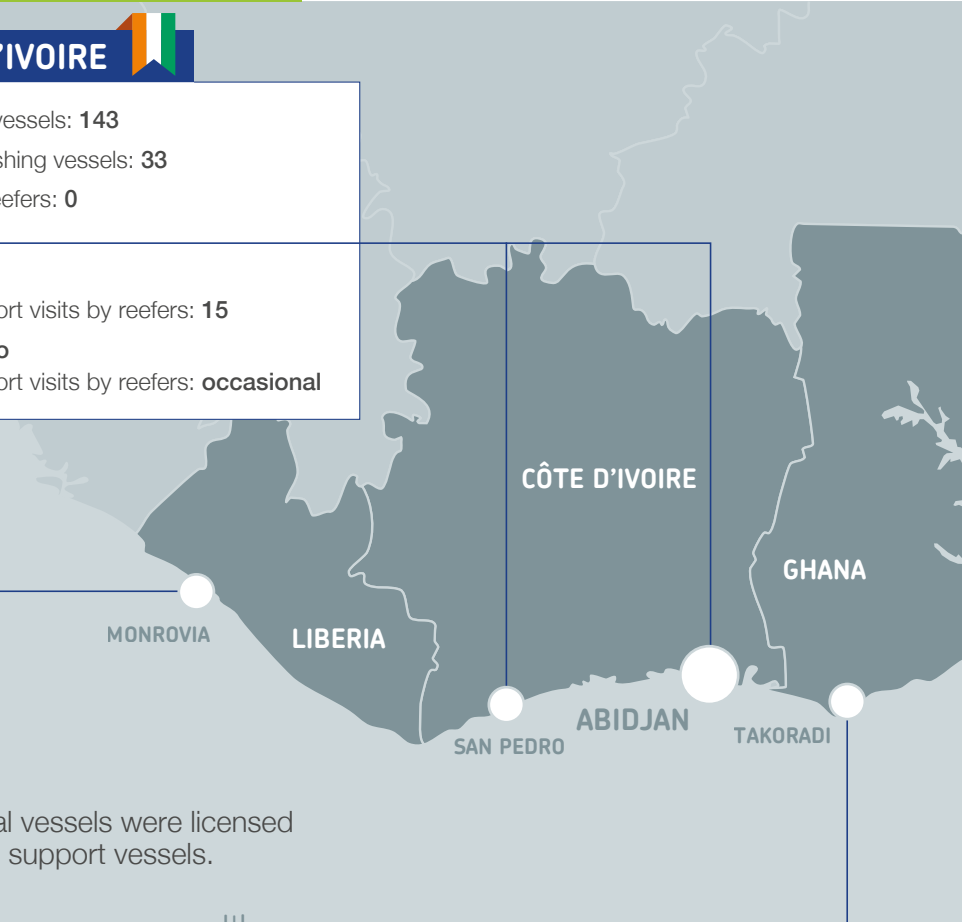
Abidjan
 Monthly port visits by reefers: **15**
San Pedro
 Monthly port visits by reefers: **occasional**

LIBERIA

Licensed vessels: **63**
 Flagged fishing vessels: **2**
 Flagged reefers: **30**

PORT

Monrovia
 Monthly port visits by reefers: **occasional**

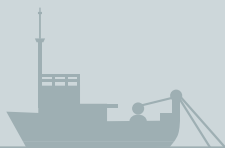


Licensed fishing vessels

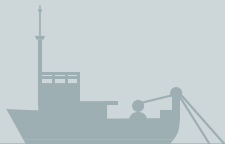
In 2021, 523 industrial and semi-industrial vessels were licensed to fish in the FCWC region, assisted by 3 support vessels.

BY GEAR TYPE:

TRAWL
 MIXED
166



TRAWL
 SHRIMP
141



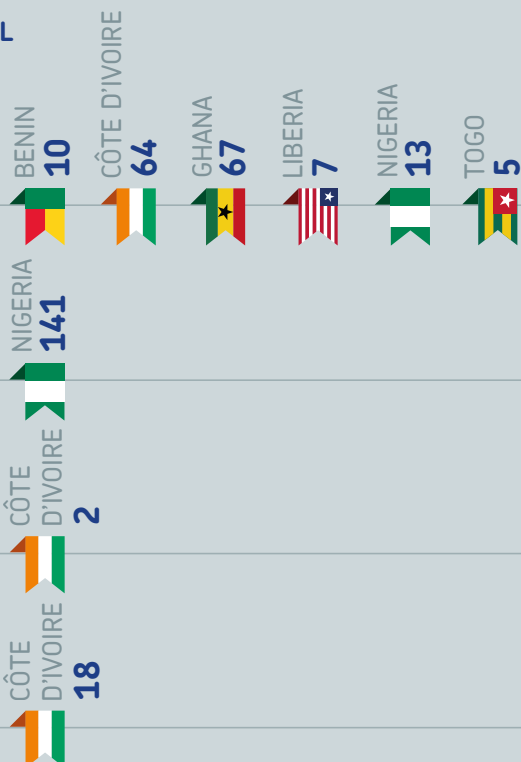
LONGLINE
 TUNA
2



PURSE SEINE
 SMALL PELAGICS
18



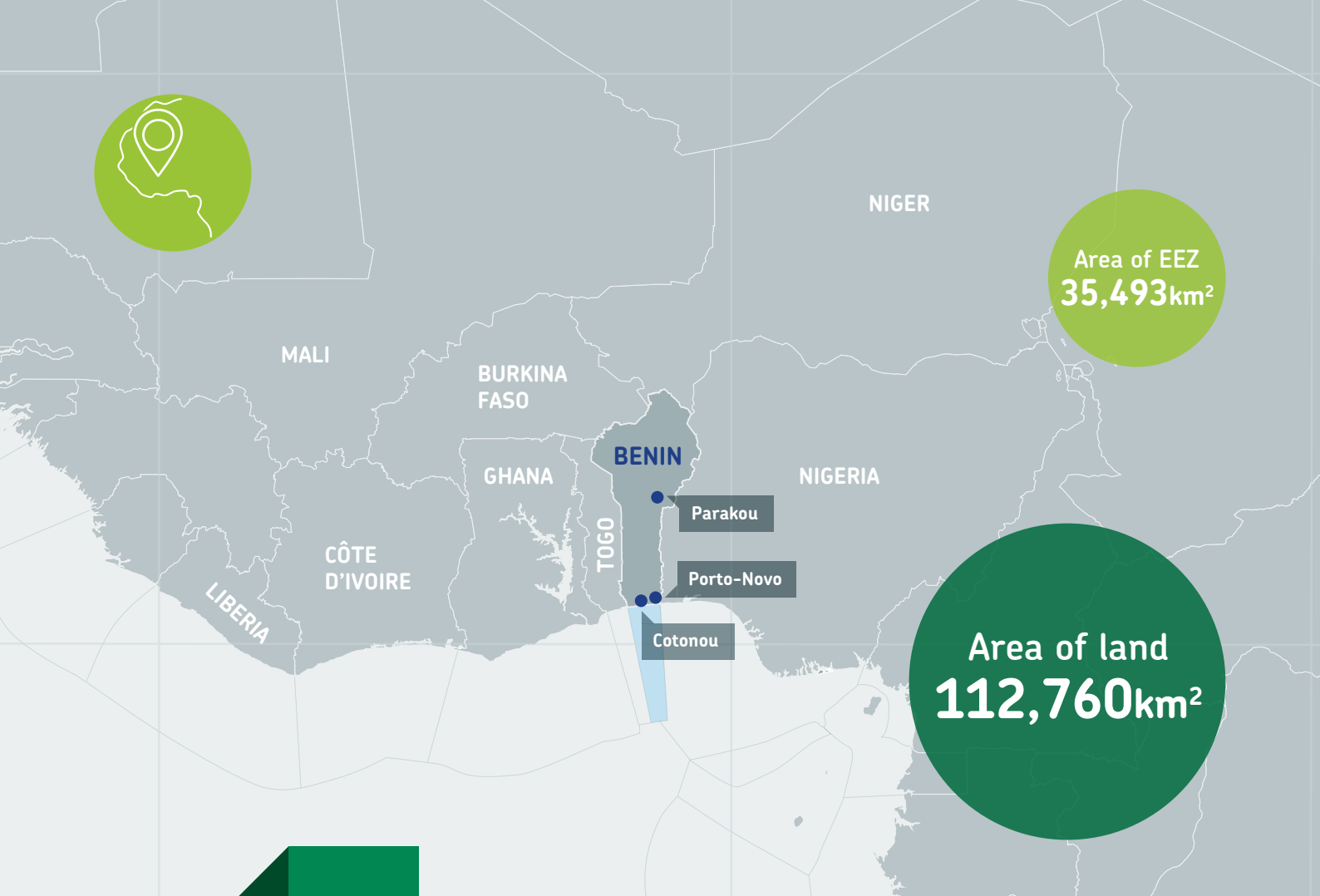
BY COASTAL STATE:



Fisheries is highly important to all six FCWC countries and they share several fish stocks and fisheries. Fishing vessels move between the coastal waters, the exclusive economic zones (EEZs) and the ports of the region and fish is traded between countries and through ports.

As a result of this interconnectivity the six countries identified a need for cooperation to manage these resources for the wellbeing of the people of the region. While, the focus of the cooperation was initially sharing information and capacity between the countries, the FCWC is now moving towards joint agreements on how to tackle fisheries related issues that have impacts across the whole region and require a coordinated response. Transshipment is one of these issues.





BENIN

Overview

Bordered by Togo, Nigeria, Burkina Faso, and Niger, Benin has a relatively small coastline of 121km in length making up 4.5% of the FCWC region's total coastline. The population is just over 12 million and despite recent improvements the poverty rate remains high, at 46.4% (2018). Benin's economy is heavily reliant on the informal re-export and transit trade with Nigeria (estimated at approximately 20% of gross domestic product (GDP)) and on agriculture.



Fish and fishing

Importance of fish and fisheries

Contribution to % of animal protein consumed	4.8%
People employed	40,000
Fish production (tonnes)	54,959

Licensed vessels

10 x trawler
5 x purse seiner
7 x pole and line

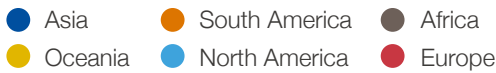
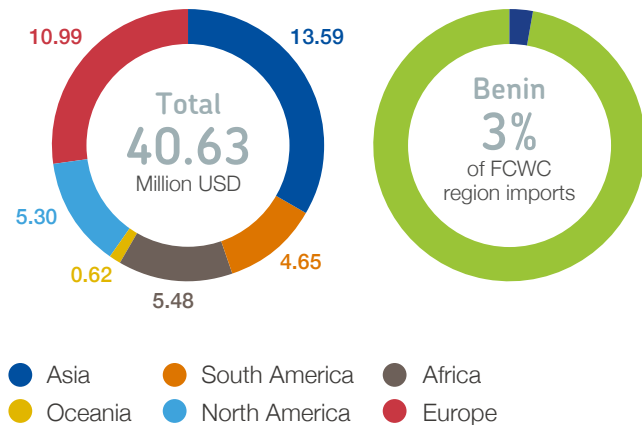
Flagged vessels

5 x fishing



Imports

Imports of fish and fishery products by value, 2017



Ports

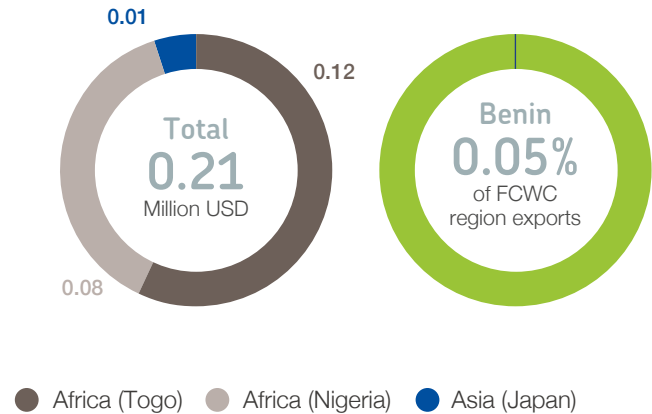
The port of **Cotonou** is of economic significance, handling 90% of Benin's foreign trade, processing 12 million tonnes of freight annually and generating more than 60% of its GDP. Cotonou is a key freight transit port in West Africa and attracts cargo bound for land-locked neighbours such as Burkina Faso, Niger and Mali, as well as for Nigeria. Goods destined for the interior of Benin are transported from the port of Cotonou by trucks or a railway running to Parakou.

Transport vessels including reefer cargo vessels carrying frozen fish regularly call in to port in Cotonou, an average of four per month. They usually dock at a pier to unload frozen small pelagic fish destined for the local and regional market, in particular for Nigeria.

There is no transshipment in port in Cotonou, however the port does see landings by reefers. It has berthing space for the few locally flagged medium-sized trawlers that use the port, a beaching ramp for pirogues and a dry-docking slipway. Although Benin annually authorises around 12 Ghana-flagged tuna vessels (purse seine and pole and line vessels), these vessels do not call into port in Cotonou.

Exports

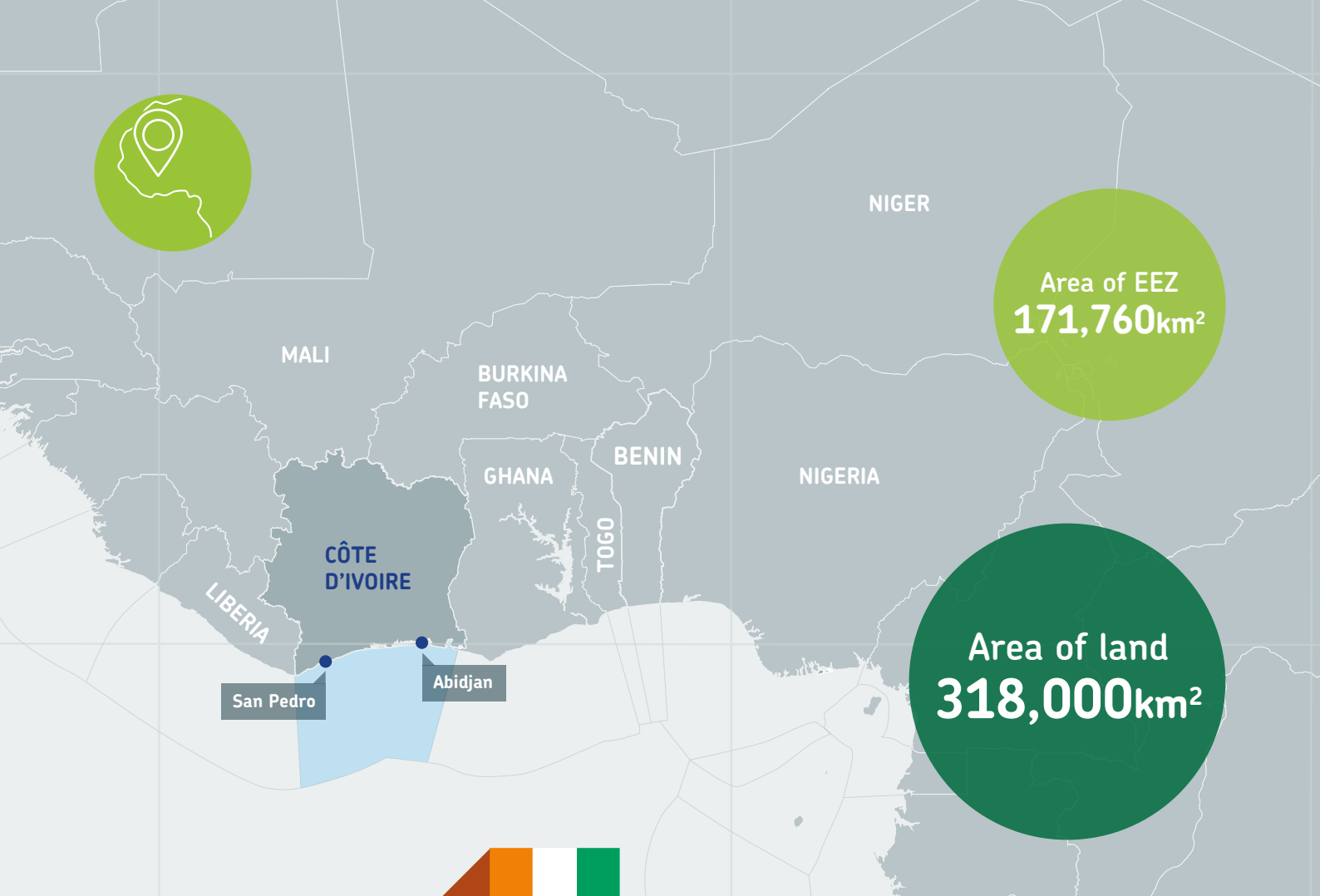
Exports of fish and fishery products by value, 2017



National legal framework

Fisheries management is within the competences of the Ministry of Agriculture, Livestock and Fisheries (MAEP) while the registration of fishing vessels is within the Ministry of Infrastructure and Transport. The main fisheries legislation is the 2014 Framework Law on Fisheries and Aquaculture, supported by the Regulations adopted under the previous fisheries law. This includes the Inter-Ministerial Order No. 694 of November 1999 establishing conditions for fishing activities in waters under national jurisdiction and Order No. 31 of June 1970 regulating enforcement.

Transshipment at sea within waters under Benin's jurisdiction requires authorisation, the conditions and formalities of this transshipment are to be established by a decree from MAEP. Benin does not have provisions managing transshipment at sea by Beninese vessels in areas beyond Benin's national jurisdiction.



CÔTE D'IVOIRE



Overview

Bordered by Liberia, Guinea, Mali, Burkina Faso, and Ghana, Côte d'Ivoire has a coastline of 515km in length consisting of 19.3% of the FCWC region's total coastline. The economy has expanded by an average of 8% per year since 2011, making Côte d'Ivoire one of the fastest growing economies in the world. With a population of around 23 million people, there was a sharp rise in the poverty rate from 10% to 51% of the population between 1985 and 2011, although it has reportedly fallen to 46.3%.



Fish and fishing

Importance of fish and fisheries

Contribution to % of animal protein consumed	6.7%
People employed	97,102
Fish production (tonnes)	105,529

Licensed vessels

2 x longliner
64 x trawler
18 x small pelagics seiner
59 x tuna purse seiner
3 x support

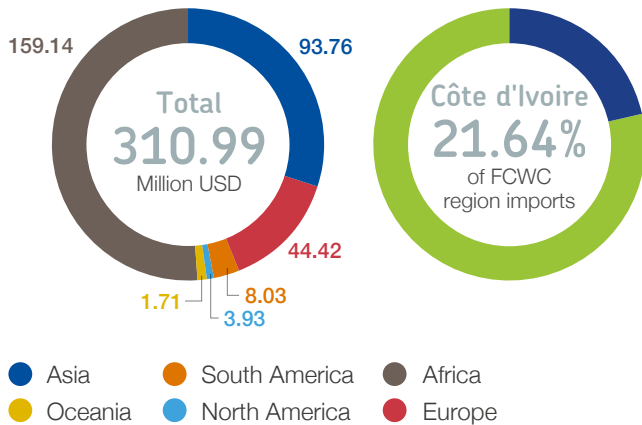
Flagged vessels

33 x fishing



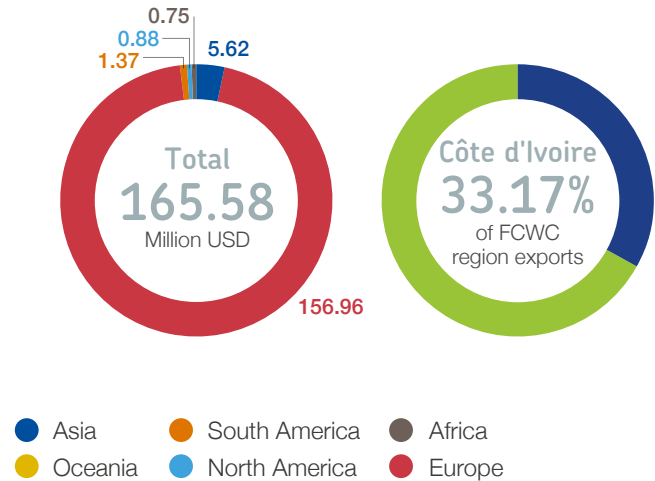
Imports

Imports of fish and fishery products by value, 2017



Exports

Exports of fish and fishery products by value, 2017



Ports

Abidjan is the most significant port for tuna in Africa. It is the operational port for many foreign-flagged tuna purse seiner fishing vessels and support vessels operating in the mid-Atlantic, including across several West African EEZs. Recently, it has become the operational and home port for a fleet of locally-flagged tuna longline fishing vessels operating in the high seas. The fishing port is also home to a fleet of locally-flagged demersal trawlers and small pelagic purse seiners operating in the country's coastal waters.

In addition, the Abidjan port sees an important traffic of transport vessels, including reefer cargo vessels, with an average of 15 port calls per month, calling at the fishing or cargo port. These vessels are unloading frozen small pelagic species for the local market and tuna for the cannery. Reefers also land demersal fish in Abidjan, mainly originating from other West African trawl fisheries.

Outside of the fishing port, the container terminals are equipped to handle refrigerated container vessels, with an average of 12 visits by containerships per month. Abidjan provides a natural harbour for conducting tuna transshipment operations at the anchorage between fishing vessels and transport vessels, in particular for tuna destined for other global processing hubs.

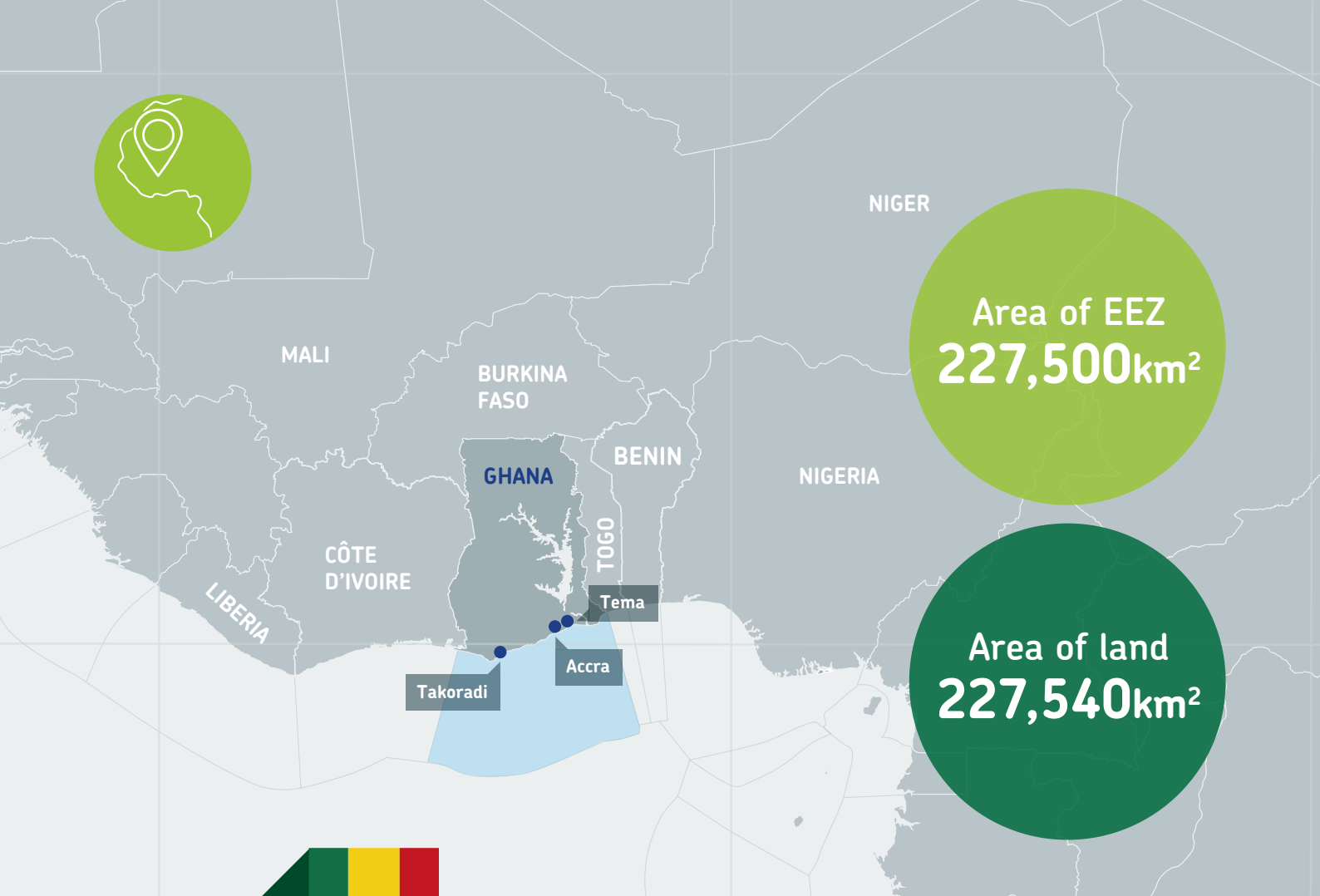
San Pedro is Côte d'Ivoire's second port and serves as a port of transit for neighbouring landlocked countries. San Pedro is mainly used for export of agricultural product to international markets. The port sees a marginal traffic of reefer vessels. No industrial fishing vessels are based in San Pedro, but the port includes an artisanal fishing quay.



National legal framework

Fisheries management is within the competences of the Ministry of Animals and Fisheries Resources while the registration of fishing vessels is under the Ministry of Transport. The main fisheries legislation is the 2016 Law on Fisheries and Aquaculture, to date the implementing regulation is that of the previous 1986 Law of Fisheries as long as the provisions are not contrary to the 2016 Law.

Transshipment at sea is prohibited unless a written permission has been received from the Minister in charge of fisheries. If authorised, transshipment at sea must be conducted under customs and veterinary control and in the presence of observers.



GHANA



Overview

Ghana borders Togo, Côte d'Ivoire, and Burkina Faso with a 539km coastline making up 20.2% of the FCWC region's total coastline. It has a population of just over 30 million. The contribution of Ghana's fisheries sector is 3% of the GDP, 12% of the agricultural GDP and 10% of the labour force. Fish and fish products account for over 50% of revenue from non-traditional export. Despite the rich fisheries resources, Ghana is a net importer of fish with imports as high as 48% of domestic demand in 2018.



Fish and fishing

Importance of fish and fisheries

Contribution to % of animal protein consumed	8.2%
People employed	790,000
Fish production (tonnes)	376,767

Licensed vessels

33 x purse seiner
67 x trawler
11 x pole and line
2 x reefer

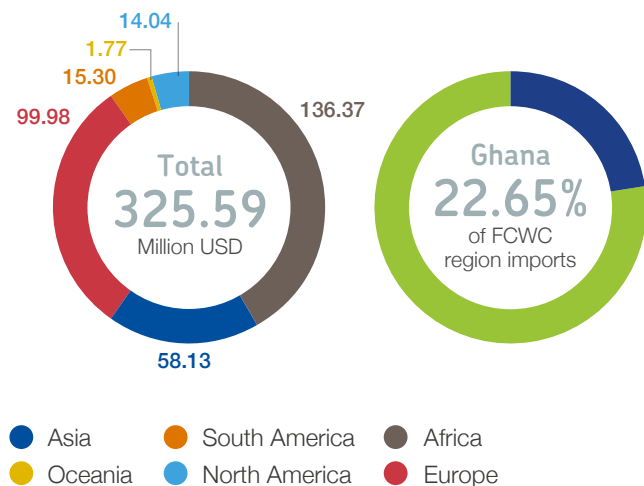
Flagged vessels

134 x fishing
1 x reefer



Imports

Imports of fish and fishery products by value, 2017



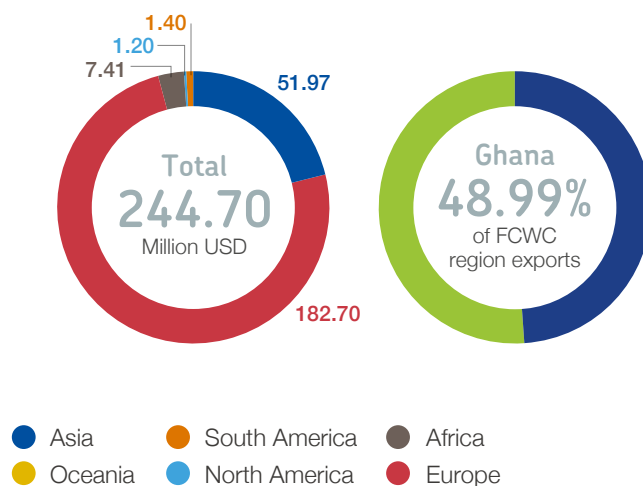
Ports

Ghana has two deep water ports in Tema and Takoradi; they handle most of Ghana's imports and exports. Although they handle large volumes of cargo their capacity is limited compared to demand for services, therefore both ports are undergoing expansion and rehabilitation including road and railway links.

Tema is a major shipping port in West Africa and a tuna hub. It is the operational base for locally-flagged industrial purse seine and pole and line tuna vessels and a large fleet of locally-flagged demersal trawler vessels, all supplying the local processing plants. Semi-industrial purse seiner vessels targeting small pelagics also operate out of Tema port. Reefer cargo ships call port in Tema, on average 15 port calls per month, mainly unloading small pelagics for the local market, tuna for the cannery, and demersal species collected in various West Africa trawl fisheries. Port areas visited by reefers vary by type of products landed – with products not linked to Ghana-based fishing companies being generally landed outside of the fishing port area in other terminals. The container terminal sees regular visits by reefer containerships, on average seven visits per month. Transshipment also takes place in the port area between Ghana-flagged tuna purse seiners and reefers, mainly for export to Côte d'Ivoire.

Exports

Exports of fish and fishery products by value, 2017



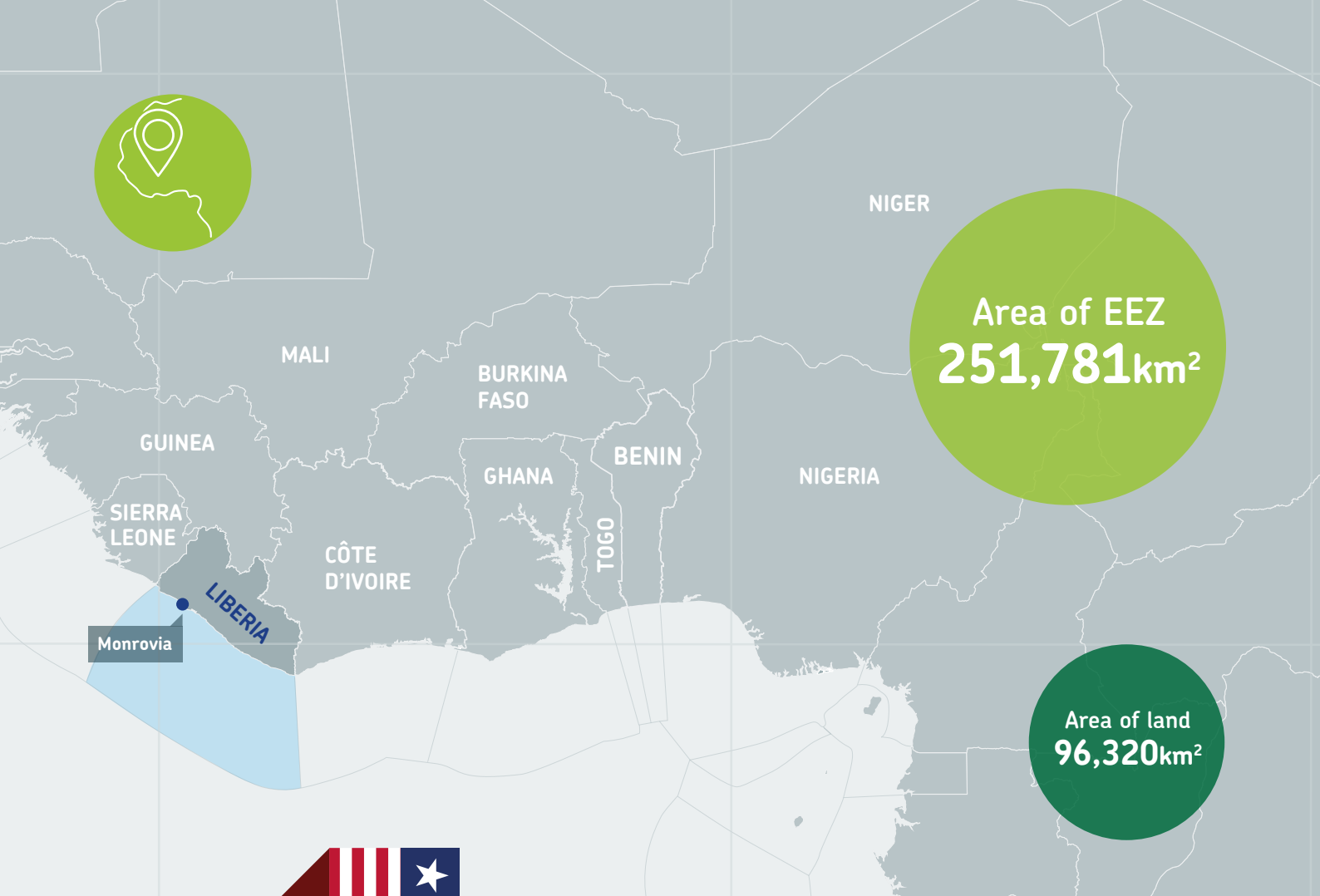
Takoradi is Ghana's oldest port and main export port. It is also the main operational base for the Ghanaian offshore oil industry. The fishing quay is home to a fleet of canoes and semi-industrial purse seine vessels. Takoradi is the port of registry of a number of Ghana-flagged industrial fishing vessels, although their operational base is Tema. The two fish carriers supporting the purse seine fleet, are based in Takoradi where they conduct in-port transshipment operations before taking the fish to Abidjan or Tema. The carriers are historically Ghana-flagged, but one re-registered with Panama in late 2020. Reefers occasionally call in to port in Takoradi, on average three visits per month, with 75% of these visits being made by the two reefers stationed there. The port is sometimes visited by foreign-flagged fishing vessels for dry-docking purposes.



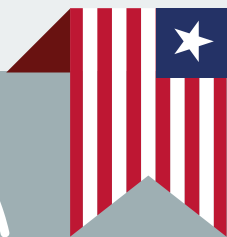
National legal framework

Fisheries management is within the competences of the Ministry of Fisheries and Aquaculture Development (MOFAD) while the registration of vessels is under the Ministry of Transport. The main fisheries legislation is the 2002 Fisheries Act, which was amended in 2014. The Act is implemented by the 2010 Fisheries Regulations which were amended in 2015.

Transshipment at sea is prohibited, except between canoes in verifiable emergency situations, see 2010 Fisheries Regulations, Article 33.



LIBERIA



Overview

Bordered by Sierra Leone, Guinea and Côte d'Ivoire, Liberia has a coastline of 579km, making up 21.7% of the FCWC region's total coastline. An average of 62.9% of Liberia's population were classified as in multi-dimensional poverty between 2009-2018. In 2017, total marine fisheries production was reported around 12,600 tonnes and estimated inland fishery production was 2,200 tonnes. The sector employs an estimated 15,000 fishermen, as well as an additional 25,000 fish processors and traders, and seafood contributes to national protein requirements.



Fish and fishing

Importance of fish and fisheries

Contribution to % of animal protein consumed	1.3%
Fish production (tonnes)	14,115

Licensed vessels

56 x purse seiner
7 x trawler

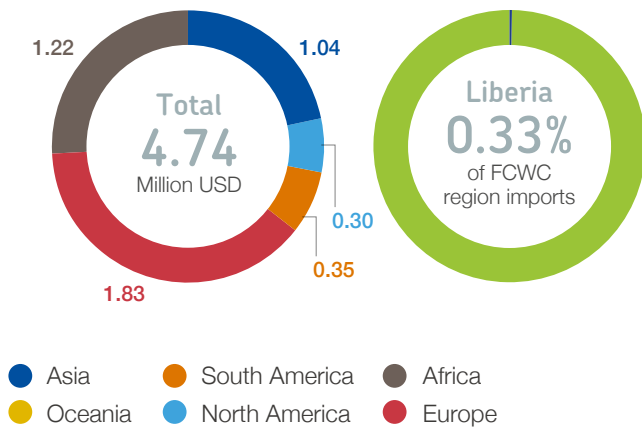
Flagged vessels

2 x fishing
30 x reefer



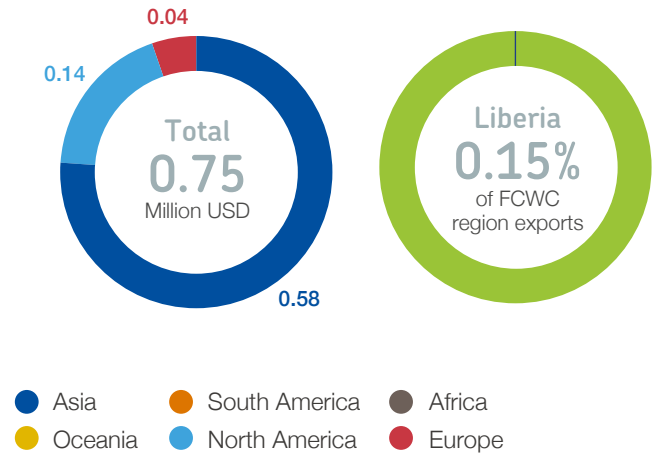
Imports

Imports of fish and fishery products by value, 2017



Exports

Exports of fish and fishery products by value, 2017



Ports

Monrovia is less integrated in regional trade than other West African ports and receives fewer port calls from container vessels. Limited port capacity and poor inland infrastructure results in the use of Monrovia as a national hub only and it serves as the main point of transit for most of Liberia's export commodities, including iron ore, rubber, and seafood. The Freeport of Monrovia serves as the main entry point for over 80% of Liberia's imports and accounts for approximately 85% of all customs revenue collected by the Liberian government.

The port's infrastructure only consists of one main cargo wharf and a few piers in an artificially sheltered bay. Most foreign-flagged fishing vessels operating in Liberia waters which are mainly tuna vessels do not call in to port in Monrovia, and only a handful of foreign and locally-flagged trawlers are based there.

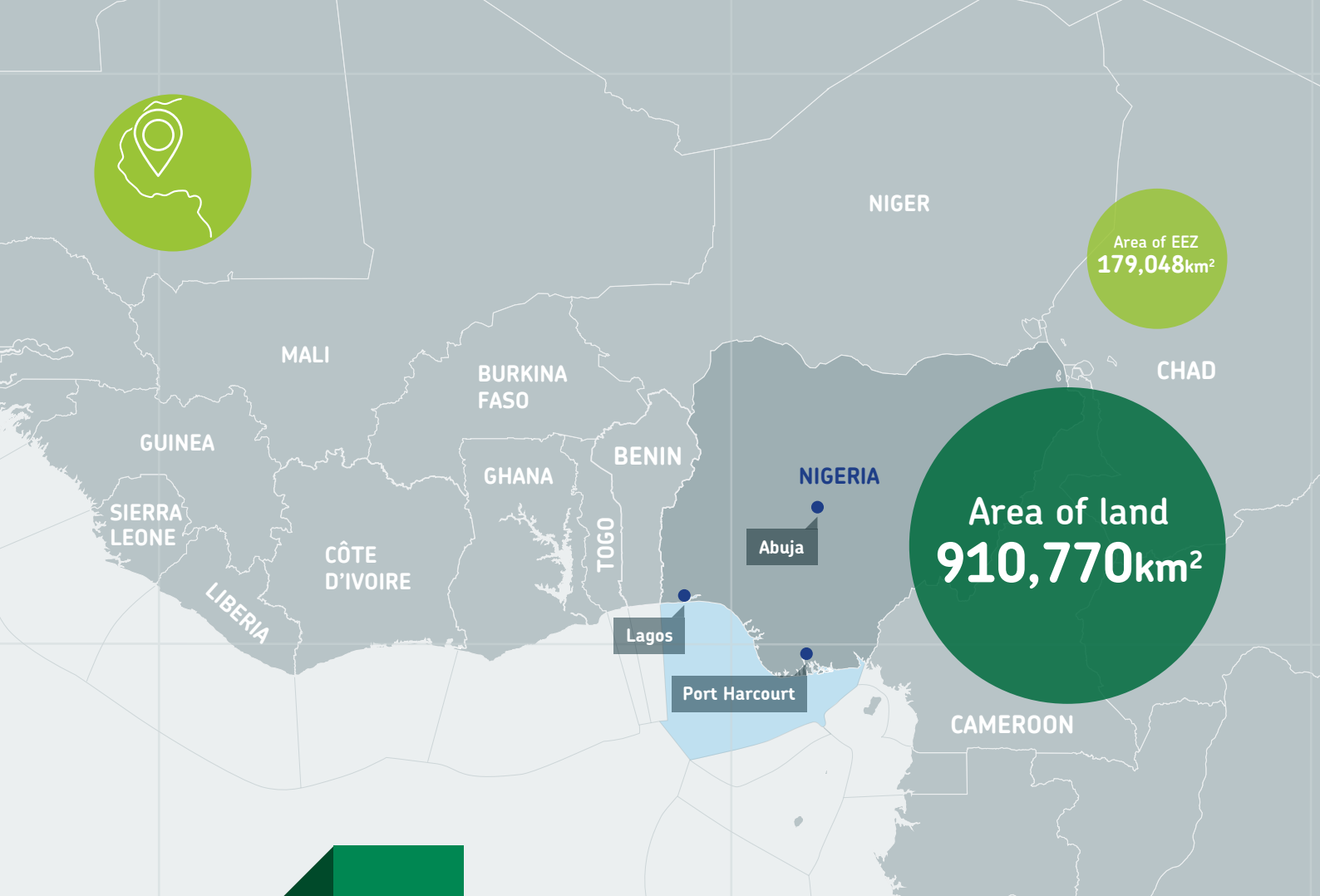


National legal framework

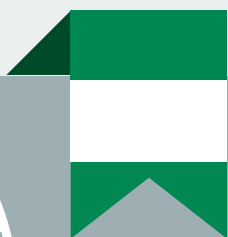
Fisheries management is within the competences of the National Fisheries and Aquaculture Agency (NaFAA). The Liberia Maritime Authority runs the domestic register, and has responsibility for flagging local fishing vessels. The registration of international vessels via Liberia's open registry is outsourced to the Liberia International Ship and Corporate Register, a privately owned company in the USA.

The main fisheries legislation is the 2019 Fisheries and Aquaculture Management and Development Law which amends the 2017 National Fisheries and Aquaculture Act. The 2010 Fisheries Regulations remain in force in as far as they do not conflict with any provisions in the 2017 Act as amended in 2019.

Transshipment at sea is prohibited, except where the NaFAA Director General declares exceptional circumstances such as the unavailability of port facilities for transshipment. Observers or inspectors shall be placed on board prior to or during transshipment.



NIGERIA



Overview

Nigeria borders Benin, Cameroon, Niger and Chad, and has an 853km coastline, making up 32% of the FCWC region’s total coastline. Nigeria accounts for about half of West Africa’s population with approximately 202 million people and one of the largest populations of youth in the world. It is Africa’s biggest oil exporter and has the largest natural gas reserves on the continent. In 2015, the total fisheries production was estimated at 878,155 tonnes, to which marine catches contributed 36%, catches from inland waters contributed 33% and aquaculture 31%. The fishery sector contributed to 0.5% of national GDP in 2015.



Fish and fishing

Importance of fish and fisheries

Contribution to % of animal protein consumed	2.7%
People employed	790,000
Fish production (tonnes)	878,155

Licensed vessels

- 13 x trawler
- 141 x shrimp

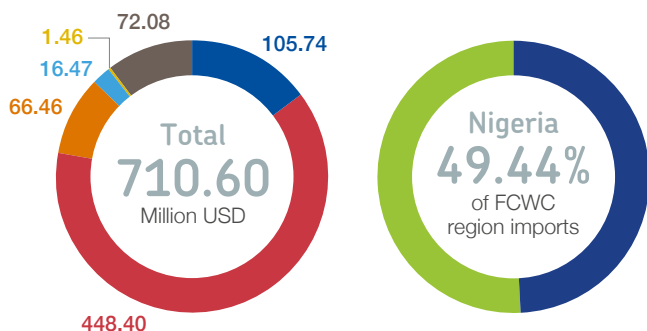
Flagged vessels

- 319 x fishing
- 1 x factory
- 1 x reefer



Imports

Imports of fish and fishery products by value, 2017



● Asia ● South America ● Africa
● Oceania ● North America ● Europe



Ports

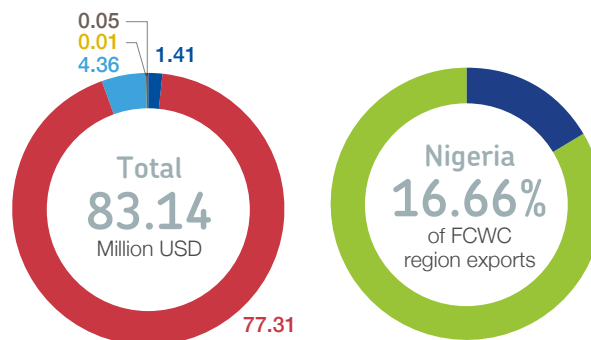
The two seaports in Lagos, West Africa's commercial hub, face serious congestion. Nigerian ports and maritime facilities are currently costlier than neighbouring countries such as Port-Novo in Benin or Tema in Ghana. While the traffic level through Lagos remains high, congestion and costs have contributed to reduced traffic levels in the last decade. The government is pursuing strategies to boost capacity for maritime trade including plans to build a new deep-sea port in Warri, Delta State, with Chinese investment.

Lagos port complex provides the entry point to the largest single market on the African continent and is constituted of several ports located in the Lagos lagoon, the main one being Apapa, which itself contains several terminals. Outside the main terminals the port contains multiple dockyards, jetties, shipyards and naval complexes, making Lagos the largest and busiest harbour in West Africa. Similarly, fishing quays – mostly private-run – are dispersed in creeks and along the Lagos channel. They are home to domestic industrial demersal and shrimp trawlers, with each company operating its own dock with landing and processing infrastructure.

Cargo reefers average seven visits per month and usually dock at the general cargo area of the Apapa port, to land small pelagics mainly originating from the North Atlantic and West African fisheries.

Exports

Exports of fish and fishery products by value, 2017



● Asia ● South America ● Africa
● Oceania ● North America ● Europe

Port Harcourt is part of Nigeria's second port complex, called the Rivers Port complex. Port Harcourt is a multi-purpose quay surrounded by several specialised terminals, the most modern one being Onne, which includes a container terminal and an 'oil and gas free zone' supporting the oil industry. Port Harcourt also harbours part of the country's fishing fleet including some of the locally-flagged trawlers that operate in the Eastern part of Nigerian coastal waters. Reefer cargo vessels occasionally call in to the main general cargo terminal in Port Harcourt, on average two visits per month.

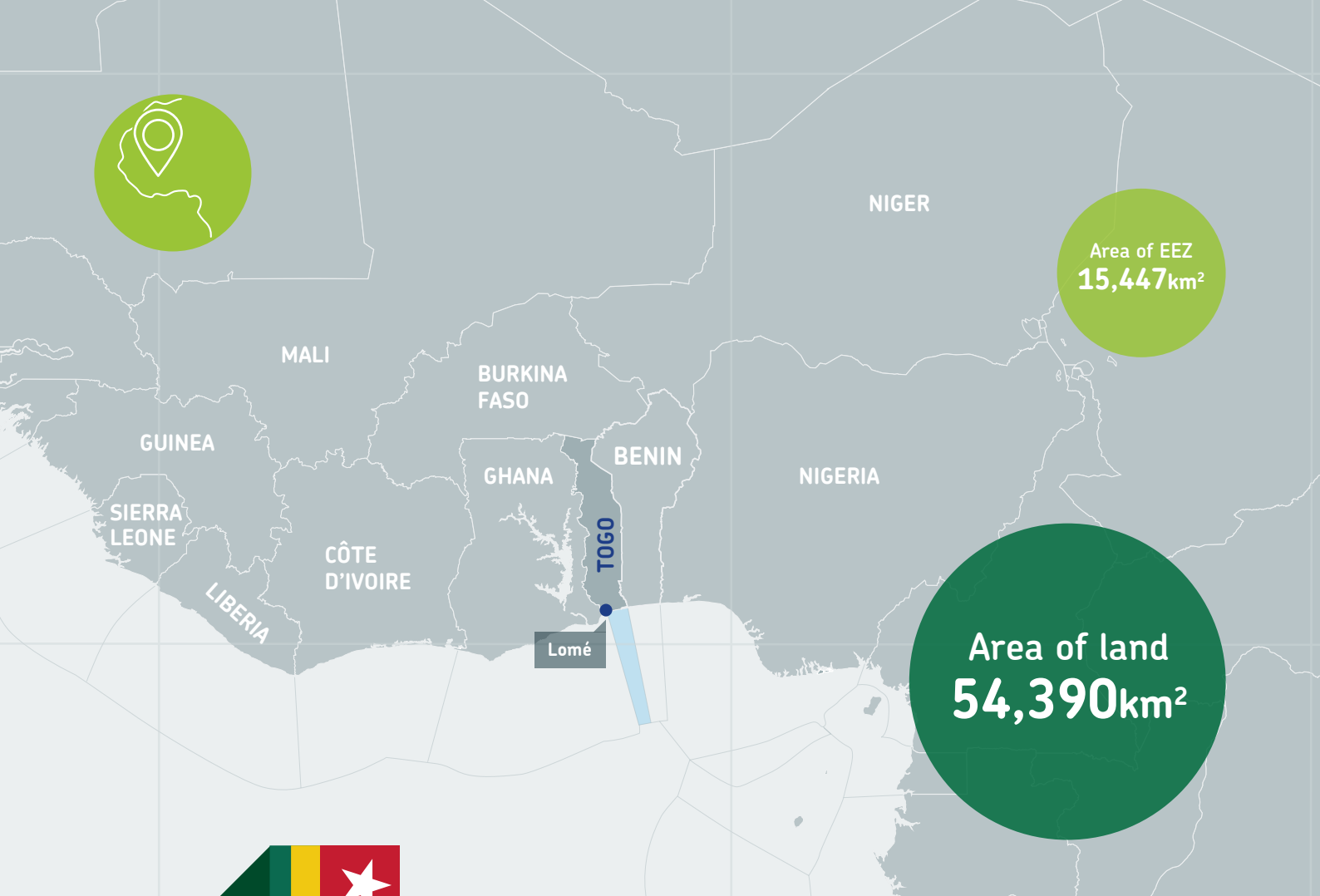


National legal framework

Fisheries management is within the competences of the Federal Ministry of Agriculture and Rural Development (FMARD) while the registration of vessels is within the competences of the Nigerian Maritime Administration and Safety Agency (NIMASA).

The main fisheries legislation is the 1992 Sea Fisheries Act (currently being updated), which is implemented by the 1992 Licensing Regulations and the 1992 Fishing Regulations.

National legislation does not address transshipment.



TOGO



Overview

Togo is bordered by Benin, Ghana and Burkina Faso. Its capital Lomé is located on the 56km coastline. The shortest coastline in West Africa, this makes up 2.1% of the FCWC region's total coastline. Togo has a population of approximately 7.3 million. Poverty rates in Togo declined from 61.7% to 55.1% between 2006 and 2015, and economic growth between 2011 and 2015 improved living conditions for most of the population, including those in the bottom 40% of the income distribution.



Fish and fishing

Importance of fish and fisheries

Contribution to % of animal protein consumed	3.4%
People employed	31,393
Fish production (tonnes)	24,620

Licensed vessels

5 x trawler

Flagged vessels

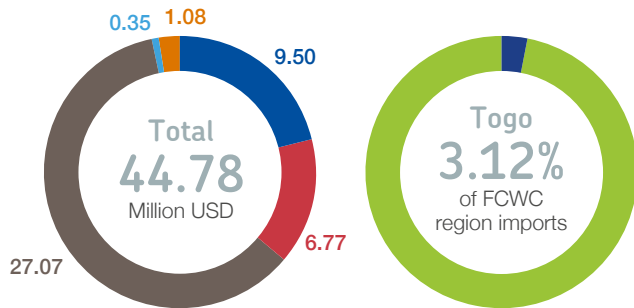
6 x fishing

11 x reefer



Imports

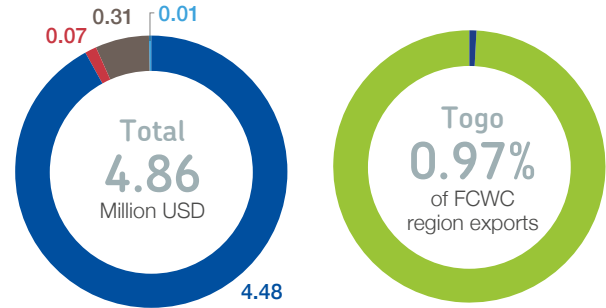
Imports of fish and fishery products by value, 2017



● Asia ● South America ● Africa
 ● Oceania ● North America ● Europe

Exports

Exports of fish and fishery products by value, 2017



● Asia ● South America ● Africa
 ● Oceania ● North America ● Europe



Ports

Togo is a significant transshipment hub and logistics platform for the West African sub-region.

Lomé is a deep-water port and the biggest container port in West Africa. In 2017, the Togolese capital, ranked as the top container port platform in the sub-region by the Dutch analyst Dynamar and its growth is predicted to continue.

While the container port of Lomé is the only deep-water port and the most competitive port in West Africa, its fishing port has a very limited berthing capacity due to the large size of the container terminal. Its fishing quay is mainly used by canoes while the few locally flagged medium-sized trawlers are temporarily allowed to offload in other areas of the port. With the recent construction of a new fishing port for canoes and semi-industrial vessels, more space will be available for larger fishing vessels.

Only a few foreign-flagged industrial fishing vessels call in to port in Lomé, mainly to undergo repairs at the dry dock as the slipway is located near the fishing quay. The port of Lomé sees regular visits by reefer cargo ships, on average six per month, mainly unloading small pelagics for the local market and neighbouring countries.



National legal framework

Fisheries management is within the competences of the Ministry of Maritime Economy, Fisheries and Coastal Protection. While vessel registration is within the competences of the Ministry of Infrastructure and Transport, the registration of vessels on the open registry appears to be conducted by International Registration Bureau, which has its main office in Greece.

The main fisheries legislation is the 2016 Law on Fisheries and Aquaculture. Implementing legislation is under development. The 2016 Law provides that the provisions of the previous Fisheries Law, specifically the 1998 Law on Fisheries to remain in force as long as the provisions are not contrary to the 2016 Law.

Transshipment at sea within waters under Togo's national jurisdiction is prohibited as is transshipment at sea by Togolese flagged vessels in areas beyond national jurisdiction. All transshipment must take place in port, with the authorisation of the port State and the flag State, in the presence of relevant personnel to oversee the operations, and subject to fees applicable under relevant legislation.



1.3 TRADE

Trade of Fishery Products

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An overview of trade flow for the region can be made in respect to volume of fish and seafood products traded, in tonnes, and the value of fish and seafood products traded, in USD. While these are not directly comparable due to the different systems for recording information, some interesting insights and indications can be gained.

Reported total import volume was 1,499,304 tonnes in 2017 and exports were 62,808 tonnes over a similar period. Making the volume of imports around 24 times higher than the volume of exports. The total import value in 2017 was 1,437 million USD while exports valued 499 million USD, which means that imports valued around three times that of exports.

The average price for imports by volume, which were predominantly frozen fish, was 1 USD per kilogram. The average price for exports by volume, which covered a range of products including frozen and fresh fish, molluscs and crustaceans was 8 USD per kilogram.

The import and export volume and value (see Figures 1.2 and 1.3) show that there is a complex relationship between the volume of product and its value, that varies depending on the state and the destined use of the fishery product. Fish imported into the region for consumption is usually low in value, high in volume and relatively unprocessed, such as frozen or dried small pelagic species. While fish exported from the region is

usually high in value and low in volume, mainly due to its high level of processing before export, such as molluscs and crustaceans. The imports contribute to regional food security, while the export generate employment and foreign income.

The approximately 1.5 million tonnes of imports are mainly landed in the regions' ports either directly from foreign fishing vessels or via transport vessels (reefers and containers). The latter often include reefers that have conducted transshipment operations with fishing vessels on the fishing grounds or in other ports – mostly outside of the FCWC region. Landings by these transport vessels therefore require monitoring by fishery authorities to ensure that port State measures are applied and for the region to protect their ports and markets against the importation of fish that has been caught through IUU fishing.

Figure 1.2: Fishery product trade flow in fish volume (2017)



Figure 1.3: Fishery product trade flow in fish value (2017)

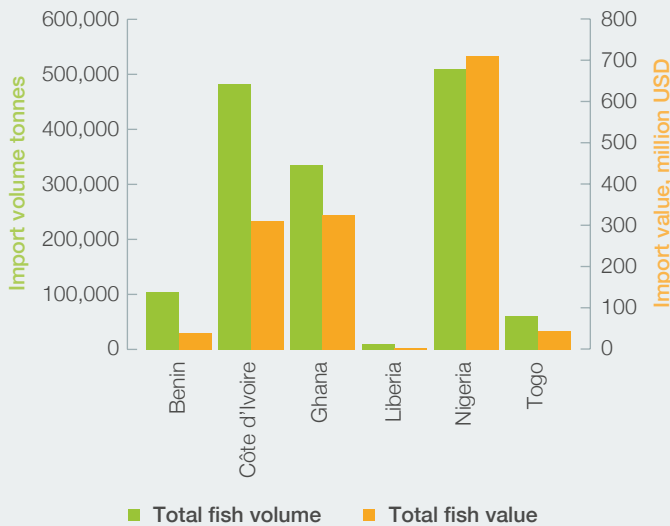




The import and export volume and value per country (see Figures 1.4 and 1.5) indicates that the three most heavily populated countries, Nigeria, Côte d'Ivoire and Ghana are the main importing countries for value and volume.

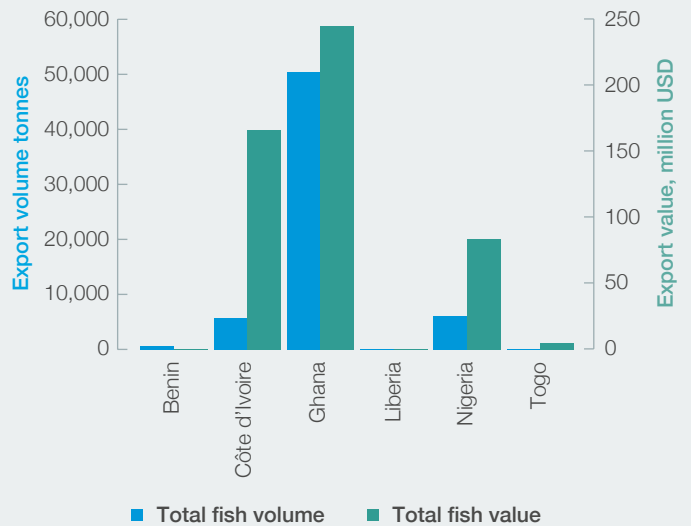
Ghana followed by Côte d'Ivoire are the region's two main exporters of fishery products by value. Ghana exports significantly more by volume than the other countries of the region, and this is reported to be mainly frozen fish.

Figure 1.4: Import volume and value of fishery product in the FCWC countries (2017)



Note: Nigeria and Liberia volume data from 2018

Figure 1.5: Export volume and value of fishery product in the FCWC countries (2017)



Note: Ghana and Togo volume data from 2018



TRADING PARTNERS

The region trades fish and fishery products with the entire world. For analysis, trading countries are grouped into regional trading partners: Africa, Asia, Europe, South America, North America, and Oceania.

Around two billion USD of formal fishery trade takes place in the region for exports and imports. Half of this trade is with countries of Europe at 1,029 million USD, 410 million USD is with other African countries and 345 million USD is with Asian countries.

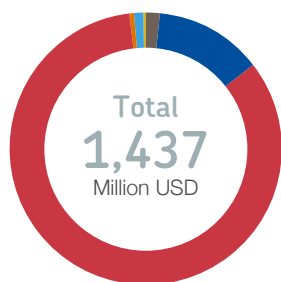
If net trade is considered, that is the exports minus the imports, all trading partner regions are net exporters to the FCWC region, meaning that the FCWC imports more fish by value from all global regions than it exports (see Figure 1.8). This correlates with the volume information, which also suggests that the FCWC region is a net importer of fish by volume.

African countries form the largest net trading partner by value, with a net import to the FCWC region of nearly 400 million USD. Asia and Europe are similar as net trading partners with around 200 million USD of net exports (see Figure 1.8).



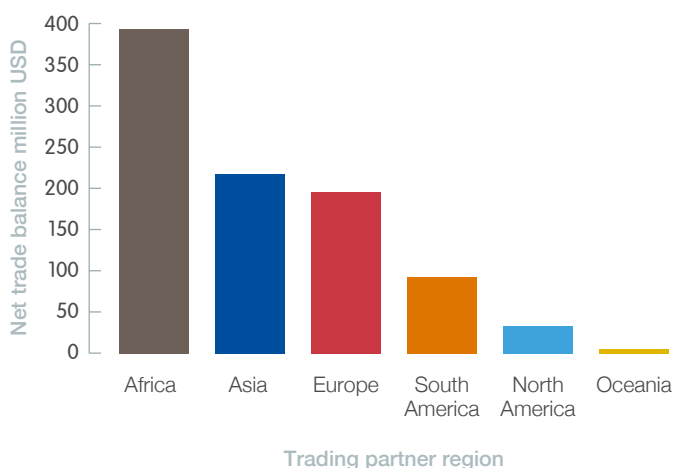
Figure 1.6: Imports to the FCWC region by exporting region (2017)

Figure 1.7: Exports from the FCWC region by importing region (2017)



- Africa
- Europe
- North America
- Asia
- South America
- Oceania

Figure 1.8: Net value of FCWC fish and fishery product trade by trading region (2017)





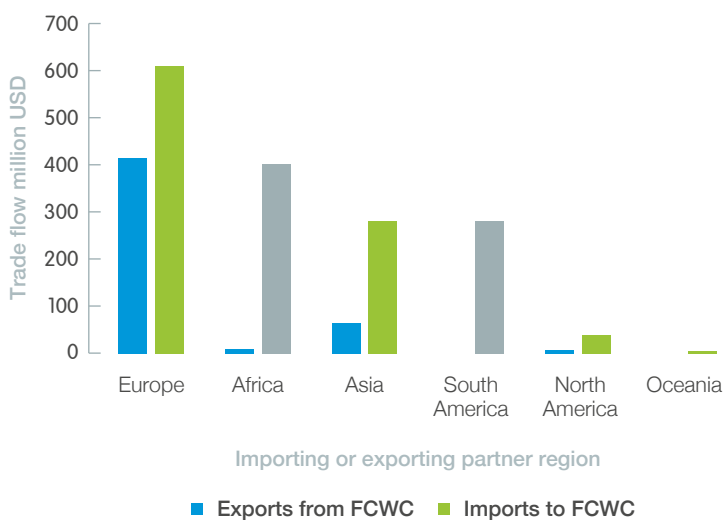
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The importance of trade in fish and fishery products for the FCWC region is significant and by analysing this trade flow (see Figure 1.9) it provides insight to guide regional priorities for monitoring and protecting fishery stocks. For example, the relative importance of the large volume of imported fish for food and nutrition in comparison to the lesser importance of the fish that is imported for processing and onward export, mainly to Europe, for consumption outside of the region.

The next section explores this subject further, by considering the different species groups that are traded in the region and the implications that these may have for transshipment.

Priorities need to be defined as capacity to monitor transshipments are limited. Therefore focusing effort on monitoring transshipments related to fish stocks that are of importance for regional needs, rather than the needs of trading partners, may be a worthwhile strategy.

Figure 1.9: Value of imports to and exports from the FCWC region by trading region (2017)





1.4 FISH

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Trade information demonstrates how the fish caught and the fish consumed in the FCWC region are often different. From the transshipment perspective both need to be considered to ensure that the fishing and trading of fish are conducted legally.

The monitoring of transshipment takes place to ensure that the catching of fish and the onward trade of that fish are conducted legally, but ultimately this process intends to ensure that the fish stocks remain sustainable, that the environment is not undermined, and that the FCWC countries benefit economically and socially from their fisheries.

Different species play different roles within the natural ecosystem and in how they contribute to the benefits that the region receives. Different species are caught by different fishing gears using different vessel types and some of these species are more vulnerable to pressures such as overfishing or climate

change than others. All of these factors should be considered when decisions about the regional priorities for monitoring, control and surveillance are made.

The species or type of fish that the region trades and transships vary considerably depending on if it is being imported or exported, where it is destined and what type of product form it consists of. Two species groups are mainly imported – the small pelagic and demersal species, and two other species groups are mainly being exported – tuna and tuna like species and crustaceans and molluscs (see Figures 1.10 and 1.11).

Figure 1.10: Value of imports to the FCWC region by species group and trading partner region (2017)

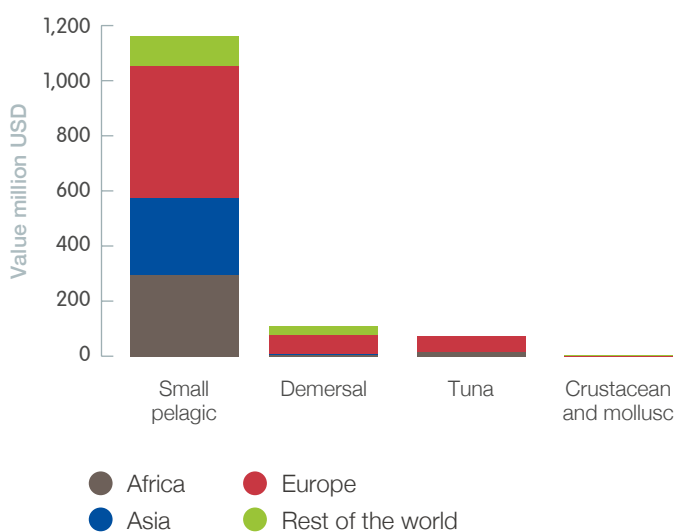
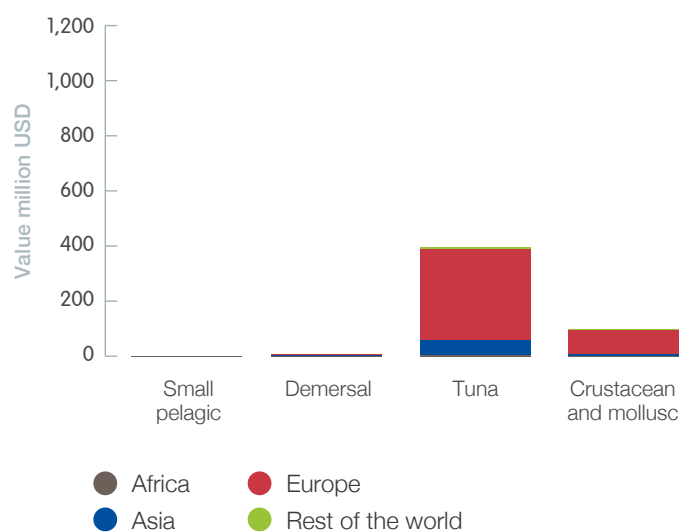


Figure 1.11: Value of exports from the FCWC region by species group and trading partner region (2017)





While this information reflects the formally traded fish and fish products, by value, and demonstrates the importance of small pelagic imports and tuna exports, it does not take into account the fish landed directly by national fishing vessels or the fish transhipped in transit (and not landed) by foreign vessels in FCWC ports.

Fish landed by nationally flagged vessels, even when foreign operated and owned, from an FCWC EEZ or the high seas to enter directly into local markets or be processed, is not captured within the import statistics, or to be processed. If this fish is then transhipped for export or processed and exported, it is captured in the export statistics.

Fish that is caught by foreign flagged fishing vessels, from an FCWC EEZ or the high seas, and transhipped in any regional ports into containers or reefers for onward transport is not captured in export statistics, unless it is first landed and imported into an FCWC country.

While this leaves a gap in the information available, as there

are limited statistics on the in-port transhipment of fish – either to reefers or containers – it is noteworthy that as this fish is not caught by nationally flagged vessels and not destined to be consumed in the region it's priority for monitoring may be of lesser importance than fish that is bringing higher benefits to the region. However, if the fish has been caught from fish stocks that are located within or important to the region, the priority for monitoring the catch and assessing its legality may become more important.

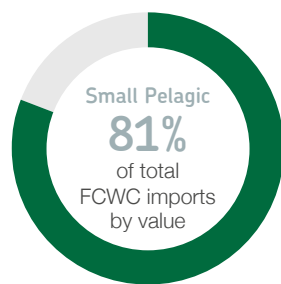
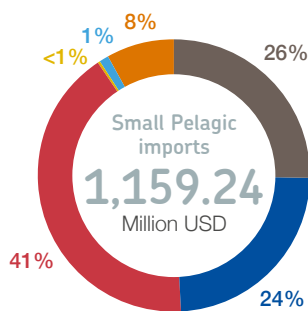
The following section contains more detail on the four main species groups and the role they play in the region.



SMALL PELAGICS

Small pelagic fish are usually forage fish that feed on plankton and are typically less than 20 centimetres long and short-lived. They often stay together in schools and may migrate large distances between spawning grounds and feeding grounds. These fish include blue whiting, herring, mackerel and horse mackerel, sardine and smelt. Small pelagics are boom-and-bust fisheries as they are vulnerable to climatic changes and overfishing.

Imports



- Africa
- Asia
- Europe
- Oceania
- North America
- South America

Exports



- Africa
- Europe
- North America

Regional role Highly important cheap fish with high nutritional value – essential for food and nutritional security. Often dried and eaten whole in a gravy or stew over a staple such as cassava, sorghum or rice.

Catch location They are found particularly in upwelling regions around the northeast Atlantic (especially Mauritania), the North Atlantic (especially Iceland and Faroe islands), off the coast of Japan, and off the west coasts of Southern Africa (Angola and Namibia) and South America (Chile and Peru).

In the FCWC region, small pelagics are mostly targeted by artisanal and semi-industrial vessels. In the industrial trawl fishery, small pelagics are considered by-catch although a market has developed for those unwanted species, generating conflicts.

Imports Small pelagic fish are imported from all over the world to the FCWC region. Europe, Asia and Africa are the main suppliers, with 78.95% of the imported small pelagic fish into the FCWC region by value, at 915.21 million USD, coming from ten States. The three most important are: the Netherlands, China and Mauritania.

Top countries of origin	Value of import (million USD)	Percentage by value of total import
Netherlands	209.34	18.06
China	172.63	14.89
Mauritania	106.16	9.16
Senegal	83.03	7.16
Japan	81.19	7.00
Denmark	70.06	6.04
Morocco	56.54	4.88
Ireland	54.21	4.68
Chile	46.23	3.99
Belgium-Luxembourg	35.81	3.09
	915.21	78.95
	1,568	

Catch method Midwater trawl, drift nets or purse seine nets can all be used to catch small pelagic fish from either small or large vessels sometimes working together or from the coast with beach seines.

Landed In all ports in the FCWC region.
Frozen or dried from containers, from reefers and from fishing vessels.

Transshipment At-anchorage transshipment operations in Mauritania, Guinea Bissau, and other regional and global locations.
At-sea transshipment hotspots off Mauritania and Angola.
Saiko transshipment in Ghana.

Exports There are negligible exports of small pelagic species from the FCWC region.



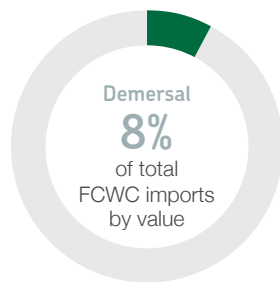
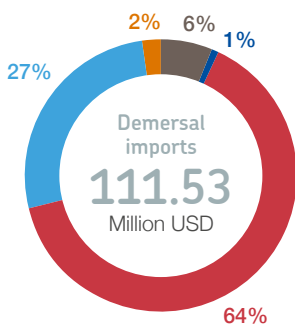
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DEMERSAL

Demersal fish or groundfish live and feed on or near the bottom of seas or lakes. In the ocean they are generally found on or near the continental shelf. Demersal fish caught in temperate regions include cod, hake and sole. In West Africa, they generally include grunt, snapper, grouper, seabream and croaker – altogether they are often traded under the term “African mix”.

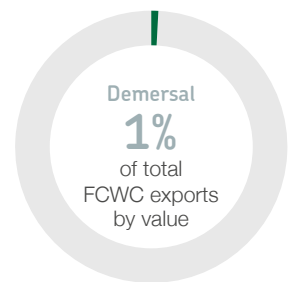
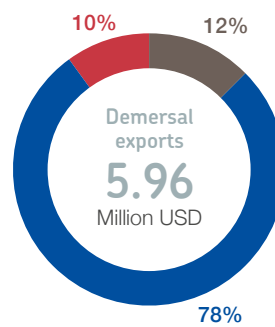
Imports



- Africa
- Asia
- Europe
- Oceania
- North America
- South America

- Demersal

Exports



- Africa
- Asia
- Europe

- Demersal

Regional role Demersal fish are caught and consumed widely within the region, either being eaten fresh or hot or cold smoked. In addition, a significant amount of dried salted or unsalted fish, especially cod, is imported into the region, mainly via Nigeria and widely transported as a highly nutritional contribution to regional food and nutrition security.

Catch location Northern Atlantic (temperate species) and along the coast of West Africa (tropical continental shelf species). In the FCWC region they are targeted by artisanal fishers, but also represent the key target species of most foreign-owned trawler fleets established.

Imports 84.17% of the imported demersal fish into the FCWC region by value, at 93.87 million USD, comes from three states: 38.67% at a value of 43.12 million USD from Iceland, 24.69% at a value of 27.53 million USD from the United States of America (USA) and 20.81% at a value of 23.21 million USD from Norway.

Top countries of origin	Value of import (million USD)	Percentage by value of total import
Iceland	43.12	38.67
United States	27.53	24.69
Norway	23.21	20.81
	93.87	84.17
	111.53	

Catch method Bottom trawl fishing.

Landed Initially in the catching country (Iceland, Norway, or the USA) and processed into dried fish. Then transported usually in containers to West Africa, mainly to Nigeria.

The fish coming from the Northern Atlantic are usually landed from the fishing vessel in foreign ports and processed, before being placed in containers, that are then moved on transport vessels to the region to be unloaded in Lagos and Port Harcourt for onward transport within Nigeria and the hinterlands. As the fish arrives in containers and has been previously landed it will not be subjected to fishery monitoring in the FCWC region.

Transshipment The fish coming from West African source fisheries are usually transhipped in port or at the fishing grounds onto 'shuttle' reefers servicing affiliated fishing fleets, before being transported either directly to the FCWC region, or indirectly after a transit into another West African hub.

Exports Very little demersal fish is exported from the FCWC region, the only noteworthy exports are of dried cod from Togo to Hong Kong at a value of 2.59 million USD and 1.65 million USD's worth of frozen whole flatfish from Ghana to China.



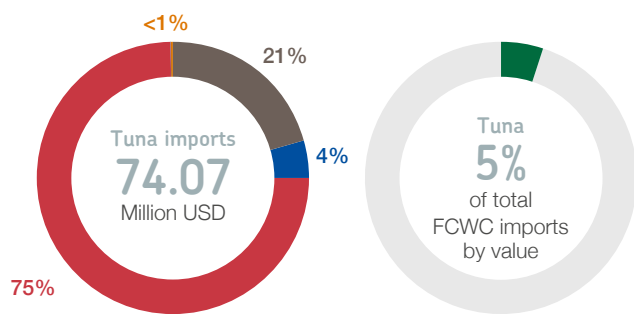
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TUNA AND TUNA LIKE SPECIES

There are twelve tuna and tuna like species caught in the area falling within the regional fisheries management organisation (RFMO) of the International Commission for the Conservation of Atlantic Tunas (ICCAT). The main tunas are albacore, skipjack, yellowfin and bluefin and the most common tuna like species include swordfish, sailfish, shark and ray. Tuna can tolerate a wide range of water temperatures and are therefore able to migrate large distances.

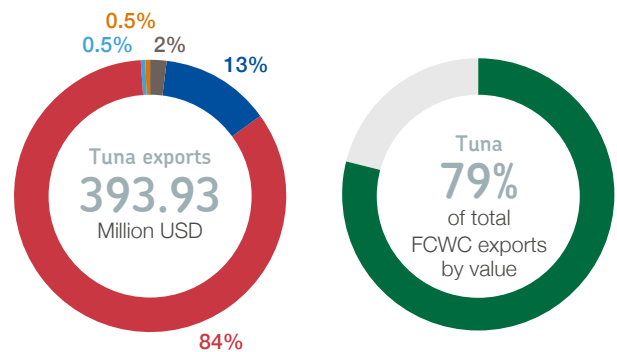
Imports



- Africa
- Asia
- Europe
- Oceania
- North America
- South America

- Tuna and tuna like

Exports



- Africa
- Asia
- Europe
- Oceania
- North America
- South America

- Tuna and tuna like

Regional role Tuna is an important economic earner for the region, creating jobs on vessels, in the ports and in factories in Ghana and Côte d'Ivoire. While there are imports of whole frozen tuna into the region, this is only for processing and exporting, mainly in tins and is generally not consumed in the region.

Catch location North eastern and central Atlantic

Imports 90.45% of the imported tuna into the FCWC region by value, at 67 million USD, comes from three states: 45.99% at a value of 34.06 million USD from France, 28.53% at a value of 21.13 million USD from Spain and 15.93% at a value of 11.80 million USD from Senegal.

Top countries of origin	Value of import (million USD)	Percentage by value of total import
France	34.06	45.99
Spain	21.13	28.53
Senegal	11.80	15.93
	67.00	90.45

Catch method Purse seine
Longline
Pole and line

Landed By foreign flagged vessels predominantly in Abidjan and also in Tema, mainly from European (French and Spanish) purse seine vessels and transport vessels.
Ghana-flagged foreign-owned purse seiners and pole and line vessels also land tuna in Ghana. Processed at canneries in Abidjan and Tema before export, primarily to Europe.

Transshipment Tuna transshipment is regulated under regional fisheries management organisations.
Tuna imported into FCWC countries may have been transhipped at sea or unloaded in port.
Transshipment (at anchorage) and destined for other regional or global processing hubs.

Exports 90.69% of the exported tuna from the FCWC region by value, at 357 million USD, goes to nine states: the three most important being from Europe, France at 122.17 million USD and 28.48%, UK at 88.17 million USD and 22.38% and Italy at 70.81 million USD and 17.97% of the total exports.

Top countries of destination	Value of export (million USD)	Percentage by value of total export
France	122.17	28.48
UK	88.17	22.38
Italy	70.81	17.97
Netherlands	17.28	4.39
Japan	15.20	3.86
Germany	14.75	3.74
Iran	13.99	3.55
Spain	13.79	3.50
Thailand	11.08	2.81
	357.25	90.69



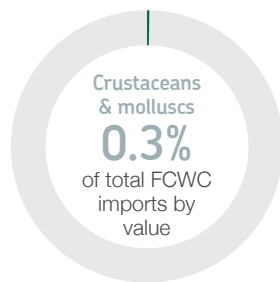
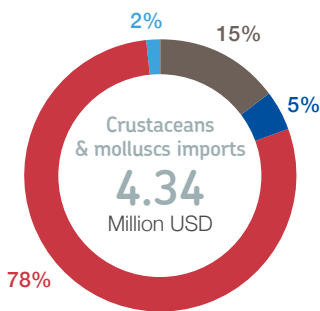
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CRUSTACEANS AND MOLLUSCS

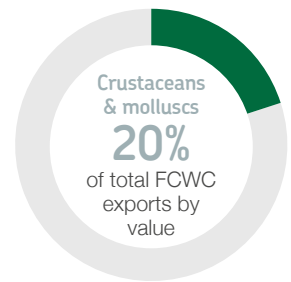
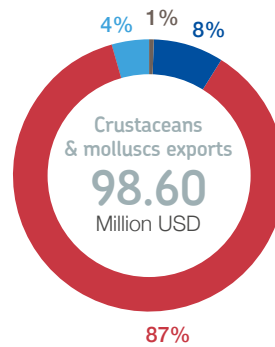
Crustaceans include crab, lobster, crayfish, shrimp and prawn. Molluscs include scallop, cuttlefish, octopus and squid. These invertebrates are high value species and generally caught for export, although some are also consumed locally, such as squid and octopus. Most are bottom-dwelling species living on the continental shelf.

Imports



- Africa
- Asia
- Europe
- Oceania
- North America
- South America

Exports



- Africa
- Asia
- Europe
- Oceania
- North America
- South America

Regional role	These fisheries generate employment onboard industrial fishing vessels (mostly trawlers targeting shrimps, cuttlefish and octopus) and in the artisanal sector, catching crustaceans and molluscs close to shore and on the continental shelf. Further processing steps take place onshore, generating more employment and creating foreign exchange and income through export.
Catch location	FCWC EEZs, especially Nigeria (shrimp) and Ghana (cuttlefish and octopus).
Imports	There are no significant imports of crustaceans and molluscs.
Catch method	Trawl, traps and fisher collection (e.g. octopus and lobster).
Landed	In many ports and landing sites in the region.
Transshipment	There is no significant transshipment of the raw product, however, the processed product is mainly sent to Europe in containers on transport vessels or by air.
Exports	72.91% of the exported crustacean and molluscs from the FCWC region by value, at 71.89 million USD, goes to three European countries. As with the tuna, France is the main importer of west African crustacean and molluscs, importing 36.41 million USD worth in 2017, at 36.92% of the total exported, the Netherlands imports 18.13 million USD and 18.39%, and Belgium-Luxembourg 17.35 million USD and 17.60% of the total exports.

Top countries of destination	Value of export (million USD)	Percentage by value of total export
France	36.41	36.92
Netherlands	18.13	18.39
Belgium-Luxembourg	17.35	17.60
	71.89	72.91
	98.59	



02

TRANSHIPMENT

2.1	Introduction	40
2.2	Transshipment and reefers	48
2.3	Transshipment and containers	96
2.4	Transshipment and factory vessels	104
2.5	Transshipment and converted fishing vessels	110
2.6	Transshipment and small transport vessels	114



2.1 INTRODUCTION

Understanding the dynamics of transhipment is key to enable the FCWC region to put in place solutions to ensure that fish and seafood passing through their ports has been sourced from sustainable fisheries and caught in compliance to applicable rules and regulations.

The section explores the role of transhipment in moving regionally caught and traded fish through FCWC ports. Firstly it describes the different vessels involved and explains the applicable regulatory framework for transhipment. The introduction is followed by more detail on the five types of transhipment relevant for the FCWC region. Each of these sections starts with a diagrammatic overview explaining the key elements of this type of transhipment. The details included for each transhipment type vary based on the availability of information and the complexity of the transhipment method.

Case studies illustrate different types of operations and, unless specific non-compliance is mentioned, are not intended to imply non-compliance. The cases provide indications as to which features and factors can be taken into consideration to determine the IUU risk associated with specific operations. The following types of transhipment are discussed:



TRANSHIPMENT AND REEFERS

Reefer vessels frequently make journeys involving several ports. The point of loading or offloading for fish entering and departing the FCWC region will in many cases not be the previous or next port visited, within or outside of the FCWC region. Reefers that are dedicated to fish transport are mainly characterised by direct port-to-port transits, or journeys to fishing grounds to conduct at-sea transhipment operations. Whilst vessels can and do change their pattern of operations according to demand and market factors, knowing the expected broad operating pattern of a vessel can provide insights into the type of operations and risk factors that should be taken into consideration. The findings from a study on reefer operational patterns are provided and an analysis of the associated risk factors for non-compliance.



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TRANSHIPMENT AND CONTAINERS

The growth in use of containers and transport fish has taken place over the last twenty years. Fishing vessels and reefers offload directly into containers in ports in the FCWC region, and containers and container vessels are a significant means for the import of fish into and export out of the FCWC region. These vessels generally operate outside of the remit of fisheries authorities, often visiting areas of port not accessible to fisheries personnel.



TRANSHIPMENT AND FACTORY VESSELS

Over the past ten years a number of vessels have operated in West Africa as factory vessels that provide fish and fishmeal into both local and international markets. Frequently these vessels are ex-fishing vessels converted to factory vessels. These vessels may be sourcing fish from industrial fishing vessels, or from local small-scale fisheries, sometimes acting as 'mother-ships' to a fleet of canoes.



TRANSHIPMENT AND CONVERTED FISHING VESSELS

In recent years a new type of transshipment vessel has appeared in the broader West Africa region. Fishing vessels are switching operations from fish catching to fish transport operations and are sometimes referred to as 'mini-reefers'. Visually these vessels can be difficult to distinguish from active fishing vessels. They may be reconfigured to have larger cargo and freezing capacity, as well as deck cranes and booms to conduct at-sea transshipment operations and they may carry Yokohama fenders to enable them to come safely alongside another vessel at sea. Or they may, at the simplest, have the fishing gear removed or stowed, and the holds are used to store transhipped fish.



TRANSHIPMENT AND SMALL TRANSPORT VESSELS

Transshipment of fish from industrial fishing vessels to smaller vessels started as a means of 'bartering' fish for goods. In recent years this has, in some fisheries, developed into a lucrative business, providing a way for industrial fishing vessels to land unwanted, damaged, undersized or illicit catch outside of a port, while evading controls. Most commonly seen in trawl fisheries, the practice is considered to have a devastating impact on stocks as it creates a demand for undersized fish.





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VESSELS INVOLVED IN TRANSHIPMENT

The FAO definition of a fishing vessel is very broad, which while useful for legal interpretations and application can lead to some challenges in operational use.

The FAO definition of a fishing vessel is 'Any vessel, boat, ship, or other craft that is equipped and used for fishing or in support of such activity. For management purpose, particularly for monitoring and surveillance, may be considered to include any vessel aiding or assisting one or more vessels at sea in the performance of any activity relating to fishing, including, but not limited to, preparation, supply, storage, refrigeration, transportation, or processing (e.g. mother ships)'.

Once fish has been caught by the catching vessel it needs to be transported to a port or landing site. This transport may be conducted by the catching vessel or the fish may be transhipped at sea into a transport vessel. Fish may also be transhipped at sea or in port to a factory vessel. Once the fish is in port or at a landing site, it may be transhipped into another transport vessel either directly or indirectly, following possible processing or re-packaging, and transported onwards.

In this publication, for technical understanding and unless otherwise stated, vessel terms are used to describe the vessels operational use, noting that one vessel may serve several operational uses:

- **'Fishing vessel'** is used for the catching vessel, including industrial, semi-industrial and small-scale vessels that catch fish and seafood. Fishing vessels can be of different sizes, construction material and use various fishing gears, such as purse seine, trawl or gill nets, longlines or pole and line.
- **'Support vessel'** is used to describe vessels that service the fishing vessel at sea. This includes services such as assistance with fish aggregating devices (FADs), re-fuelling, provision of supplies such as food and bait, changing of crew, and maintenance. A support vessel can also be called a supply vessel.
- **'Transport vessel'** is used to describe vessels that transport fish and seafood. They include reefers (refrigerated cargo vessels – which may also be called fish carriers), container vessels, converted fishing vessels operating as transport vessels (also known as mini-reefers), and small transport vessels (often canoes or planked pirogues).
- **'Factory vessel'** is used to describe vessels that process fish, usually into fishmeal or different product forms, such as fillets or headed and gutted. They are also known as 'mother ships' supporting their own group of smaller fishing vessels, or they can operate independently obtaining fish from a range of different fishing vessels.

TRANSHIPMENT REGULATIONS

The definition of transshipment varies within different national, regional, and international frameworks which results in different interpretations and applications: equally the regulatory regime that applies to transshipment is complex, overlapping and with gaps which can result in unclear interpretation and variable application.

Within the FCWC region, the rules relating to transshipment of fish and fisheries products will depend on the location where the fishing took place, for example in the EEZ of an FCWC member State, another country's EEZ or in the high seas, the flag of the fishing and transport vessels, the species and product form being transhipped and if it has already been transhipped or landed. These considerations can make it complicated for an

MCS official to know which rules apply to a vessel and what they are required to monitor and validate, or how they should prioritise which transshipments to monitor.

The following sections provide an overview of the national, regional and international frameworks applicable to transshipments in the FCWC region.



Transshipment at-sea is principally illegal within the FCWC region

The member States of the FCWC, within their national legal frameworks have either banned transshipment at sea or require special authorisation. FCWC Conventions only permit transshipment at sea in emergency situations¹.

Country	At sea	In port/anchorage	Flagged vessels operating in areas beyond national jurisdiction
Benin	Requires authorisation.	Requires authorisation.	No provision.
Côte d'Ivoire	Requires authorisation. Must be conducted under customs and veterinary control and in the presence of observers.	Requires authorisation.	No provision.
Ghana	Prohibited, save for limited safety exceptions.	Requires authorisation.	Prohibited.
Liberia	Prohibited, except in exceptional circumstances. Observer/inspector may be placed on board prior to/during transshipment.	Requires authorisation.	Requires authorisation.
Nigeria	No provision.	No provision.	No provision.
Togo	Prohibited.	Requires authorisation. To happen in the presence of relevant personnel to oversee the operations.	At sea – prohibited. Transshipment in port of another State requires authorisation of the port State as well as Togo.

¹ Article 16, paragraph three of the 2013 Convention on Minimum Requirements for Access to the Fishery Resources of the Area of the FCWC.



Membership by FCWC countries to regional fisheries bodies relevant for transshipment

The regional management and policy dimension of international fisheries is conducted through a range of regional fisheries bodies (RFBs). Most RFBs only provide advice to their members, and are referred to as regional fisheries advisory bodies (RFABs), while regional fisheries management organisations (RFMOs) have mandates to adopt legally binding conservation and management measures (CMMs) that are based on the best scientific evidence. RFBs play a role in translating and implementing global instruments and processes regionally and supporting their national incorporation.

	Transshipment	Organisation regulations	Benin	Côte d'Ivoire	Ghana	Liberia	Nigeria	Togo
Coastal States	FCWC strategy	Fishery Committee of the West Central Gulf of Guinea (FCWC)	Yes	Yes	Yes	Yes	Yes	Yes
RFABs with advisory mandate	None found	Fishery Committee for the Eastern Central Atlantic (CECAF)	Yes	Yes	Yes	Yes	Yes	Yes
	None found	Ministerial Conference on Fisheries Cooperation Among African States Bordering the Atlantic (COMHAFAT-ATLAFCO)	Yes	Yes	Yes	Yes	Yes	Yes
RFMOs with legally binding recommendations	Yes	International Commission for the Conservation of Atlantic Tunas (ICCAT)	No	Yes	Yes	Yes	Yes	No
Flag State participation in RFMOs	Yes	Indian Ocean Tuna Commission (IOTC)	No	No	No	Yes	No	No
	Yes	Inter-American Tropical Tuna Commission (IATTC)	No	No	No	Yes	No	No
	Yes	South Pacific Regional Fisheries Management Organisation (SPRFMO)	No	No	No	Yes	No	No



Membership by FCWC countries to international instruments relevant for transshipment

FCWC members are also party or signatory to a host of international agreements aimed to regulate and control the ocean, fisheries and those engaged in fishing. These include a range of instruments from different United Nations organisations that are relevant for transshipment, including:

	Benin	Côte d'Ivoire	Ghana	Liberia	Nigeria	Togo
UN Convention on the Law of the Sea (UNCLOS)	Party	Party	Party	Party	Party	Party
FAO Compliance Agreement (FAOCA)	Party	Non-party	Party	Non-party	Non-party	Non-party
UN Fish Stocks Agreement (UNFSA)	Party	Signatory	Party	Party	Party	Non-party
FAO Agreement on Port State Measures to Prevent, Deter and Eliminate IUU Fishing (PSMA)	Party	Party	Party	Party	Non-party	Party
International Labor Organization (ILO) Work in Fishing Convention (C188)	Non-party	Non-party	Non-party	Non-party	Non-party	Non-party
International Maritime Organization (IMO) Cape Town Agreement (CTA)	Non-party	Non-party	Signatory to Torremolinos Declaration	Signatory to Torremolinos Declaration	Signatory to Torremolinos Declaration	Signatory to Torremolinos Declaration



ICCAT TRANSHIPMENT RULES

The International Commission for the Conservation of Atlantic Tunas (ICCAT) prohibits transshipment at sea, apart from transshipments authorised in accordance with the Regional Observer Programme (ROP) for fish originating from large scale pelagic longliners being transhipped to reefers².



TRANSHIPMENT AT SEA

Recommendation 16-15 prohibits at-sea transshipment of tuna, tuna-like species and shark:

- within the ICCAT Convention area; and
- outside the Convention area for tuna, tuna-like species and shark harvested in the ICCAT Convention area.

The exception to this rule is transshipment at sea between large scale pelagic longline vessels (LSPLV) and carrier vessels authorised to receive transshipments from these vessels at sea.

	Fishing vessel	Carrier vessels
Requirements for transshipment	<p>Be included on the ICCAT list of authorised vessels.</p> <p>Be flagged to a State which permits its LSPLVs to tranship at sea under the ROP.</p>	<p>Be included on the ICCAT list of authorised carrier vessels (informed by the carrier vessels flag State).</p> <p>Maintain and operate a VMS.</p> <p>Have a ROP observer onboard.</p>
Before	<p>Request prior authorisation from its flag State for each operation, at least 24 hours in advance.</p> <p>Receive prior authorisation from the coastal State if transshipping in waters under national jurisdiction.</p> <p>Observer performs some pre-transshipment checks, boarding the LSPLV if conditions permit.</p>	
During		<p>Observer checks that transhipped quantities are consistent with the declared species and amount to be transhipped.</p>
After: within 24 hours		<p>Submit the ICCAT transshipment declaration and its ICCAT number to the ICCAT Secretariat and the flag State of the LSPLV.</p>
After: within 15 days	<p>Submit ICCAT transshipment declaration to its flag State and where applicable the coastal State within 15 days of transshipping.</p>	
Landing		<p>48 hours prior to landing the transhipped catch, submit the same ICCAT transshipment declaration to the port State concerned along with the carrier vessel's ICCAT number.</p> <p>The declaration must accompany a consignment that is imported or landed in a CPC until the first point of sale.</p>

² ICCAT Recommendation 16-15.



TRANSHIPMENT IN PORT

Resolution 19/06 provides conditions relating to in-port transshipment for all large-scale fishing vessels transshipping tuna, tuna like species or sharks caught in association with such species.

While fishing and carrier vessels' flag States have reporting requirements, there are no observer requirements and the carrier vessels do not need to be authorised. The port State could permit or deny the transshipment; however, no authorisation is required from the flag State(s).

	Fishing vessel	Carrier vessels
Requirements for transshipment	Be included on the ICCAT list of authorised fishing vessels.	
Before	Notify the port State at least 48 hours in advance of transshipping, providing specified information	Notify the port State at least 24 hours in advance of transshipping, providing specified information.
During and immediately after	At the time of transshipment, submit specified information to its flag State. Monitoring required for 5% of in-port transshipments.	Monitoring required for 5% of in-port transshipments. Report to the port State the quantities of tuna, tuna-like species and shark received during the transshipment.
After: within 24 hours		Complete and submit the ICCAT transshipment declaration to the competent authorities.
After: within 15 days	Complete the ICCAT transshipment declaration and send to its flag State, along with its ICCAT number, no later than 15 days after transshipping.	
Landing		48 hours ahead of landing submit the ICCAT transshipment declaration to the landing State.

2.2 TRANSHIPMENT AND REEFERS

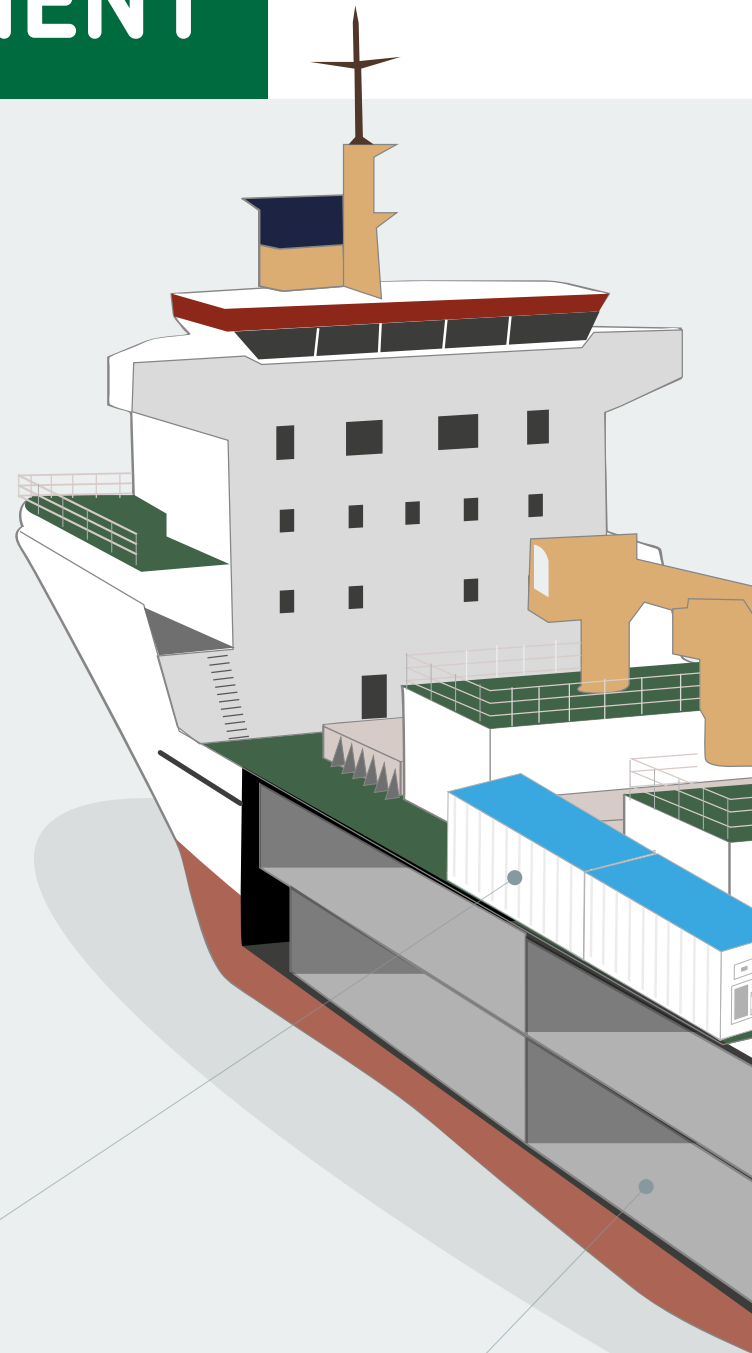
Since the 1960s refrigerated cargo vessels, or reefers, have been carrying perishable products that need to be stored at specific temperatures. Around 500 of these vessels are operating globally. Reefer vessels are specially made to carry bulk cargo relatively cheaply in their holds at controlled temperatures and oxygen levels. Reefers enable transshipment at sea, generally meeting with fishing vessels by pre-arrangement. They often provide supplies such as food and bait to fishing vessels.

Reefer operations in the FCWC area and the broader West African region contribute to an already complex maritime domain picture. While reefers have regularly been using ports in the FCWC region to load and unload fish and fish products for many years, the overall operations of reefer vessels are poorly understood. This is partly because these vessels have generally been operating outside of the remit of fisheries authorities, sometimes even visiting areas of port that are not accessible to fisheries personnel.

The following sections include information about three aspects important for transshipments associated with reefers: reefer operational patterns, reefer risk factors and reefer case studies.

Some reefers may maximise their capacity by carrying containers placed on their decks, these may be refrigerated containers that can also carry fish.

While these vessels are constructed to be bulk cargo vessels – reefers – because they also carry containers they can be known as reefer-container vessels.



Catch transhipped from different vessels can be separated by use of nets or sheets and different compartments can keep fish stored at different temperatures.



From: **Fishing vessels,
reefers, factory vessels**
To: **Port, reefers, containers**

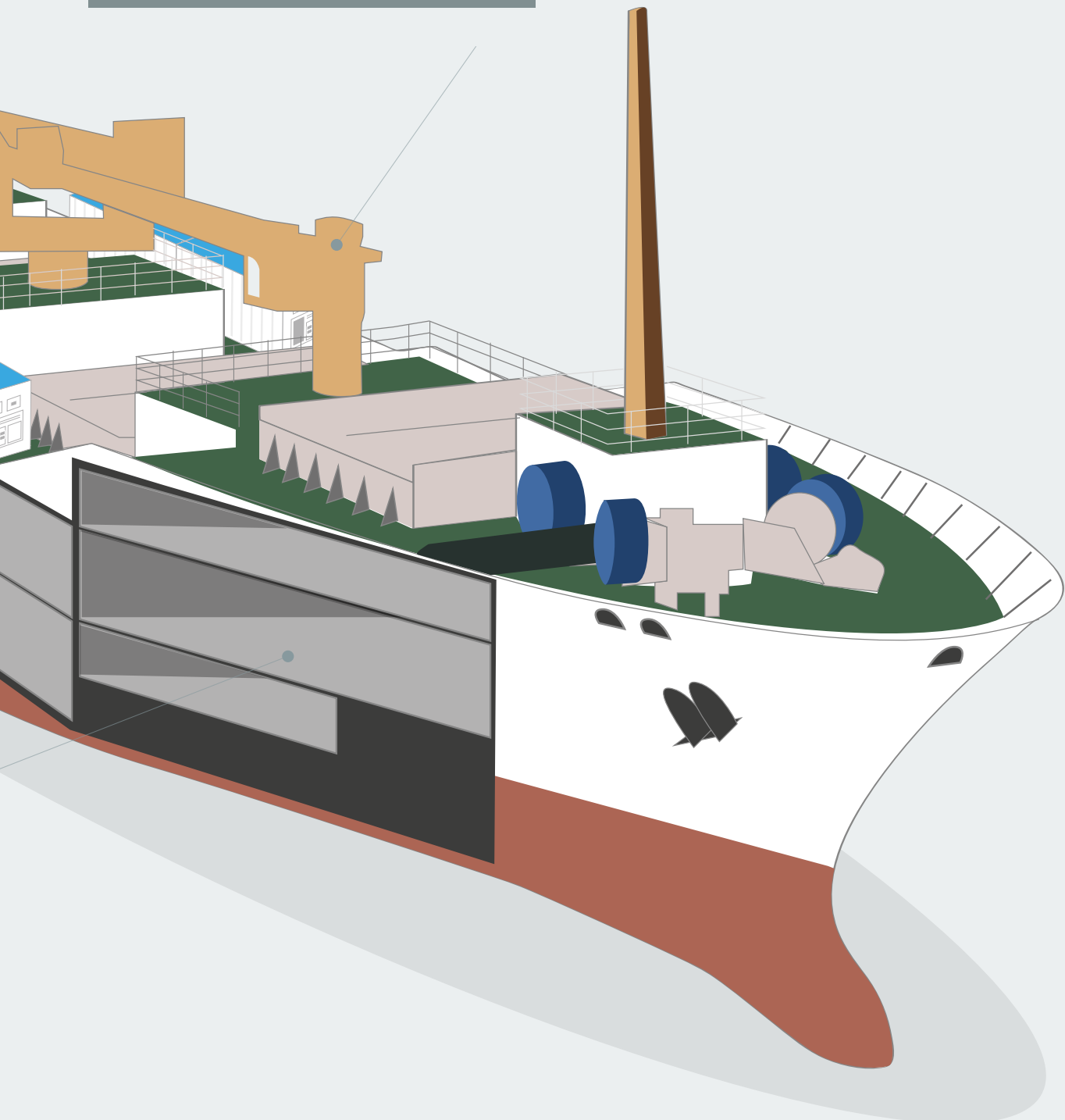


Tuna
Small pelagic
Demersal



Port
At sea

Cranes are used to load and offload fish via hatches on the deck. They can lift palletised or boxed fish. Larger fish such as tuna are lifted in clusters or in nets.



REEFER OPERATIONAL PATTERNS

There are different operational patterns associated with reefers that transport only fish or that transport fish and other commodities. Reefers that are dedicated to fish transport are mainly characterised by direct port-to-port transits, or journeys to fishing grounds to conduct at-sea transhipment operations. Varying regulations in the FCWC region and opaque rules on at-sea transhipment make verification of the legality of transhipment operations challenging.

An analysis of reefer vessels believed to have been active in the FCWC area during 2018 has been conducted by Trygg Mat Tracking and Global Fishing Watch (GFW). This aims to better understand the reefer operations that impact on the FCWC regions, associated risk factors and MCS challenges.

Reefer vessels frequently make journeys involving several ports, and the point of loading or offloading for fish entering and departing the FCWC region will in many cases not be the previous or next port visited, within or outside of the FCWC region. Therefore, vessels' port visits were analysed on a global scale to determine whether there were common operating or voyage patterns for reefers visiting the region. Whilst vessels can and do change their pattern of operations according to demand and market factors, knowing the expected broad operating pattern of a vessel can provide insights into the type of operations and risk factors that should be taken into consideration.

To prepare the list, automatic identification system (AIS) signals transmitted within the EEZs of the six FCWC member States in 2018 were cross-referenced against a number of sources, including:

- Lists of active reefers shared by FCWC members.
- Vessel photographs taken in ports in the FCWC region during 2018.
- TMT's vessel database FACT.
- GFW list of 'specialised reefers' believed to be capable of transhipping catch at sea.
- The IHS database of vessels that have been allocated IMO numbers.

This resulted in a final list of 149 reefer vessels that had been active in the region in 2018. 'Active' was defined as any reefer vessel that either called in to port in the FCWC region, or transited through an FCWC EEZ, during 2018. This baseline analysis provides an overview of reefer vessel traffic operating within the waters of the member States of the FCWC, and their broader operations.

AIS data was also used to map out possible at-sea encounters that the 149 reefers may have had with other vessels in 2018 and identify risk factors based on the circumstances of those

encounters (location/source fishery, type and risk profile of neighbour vessel, etc.) and any pattern of interest (hotspots/clusters, etc.). The analysis is based on 2018 data only, so vessels' operations in other years may place them in different categories. For example, vessels identified as Africa-specialists may have made port visits to other continents before or after 2018. Similarly, it is to be expected that a vessel's pattern of operations may change not only in response to market forces and business demands but also when undergoing a change of owner. Therefore, these categories should not be considered fixed for individual vessels. They are intended to provide insights into the typical operating patterns of vessels calling in to ports in the region, and in many cases the vessel's pattern of operations has not changed significantly since 2018.

This analysis has enabled the identification of broad geographic specialisations, operational patterns, transhipment hotspots, and the identification of risk factors that can be utilised in risk assessment and due diligence checks as part of licensing, flagging, and transhipment authorisation and implementation of port State measures decision processes.

Overview of the reefers identified

The reefers identified ranged in age from 51 years old to two years with an average age of 28 years and most vessels being between 20 and 40 years old (see Figure 2.1). In respect to vessel capacity the smallest vessel was 943 gross tonnage (GT) and the largest 17,411 GT with an average capacity of nearly 7,000 GTs (see Figure 2.2). Comparing age and capacity showed a trend for newer vessels to be larger.

When the age and capacity are compared to the area of operation, the reefers operating beyond the FCWC region were the newer vessels and the larger vessels, while the African specialised vessels had an older average age and were smaller in capacity (see Figure 2.4).

Of the 149 reefers identified 23 were identified as having changed flag during 2018, while the remainder were only documented to have one flag State. The three main flag States were Bahamas, Panama and Liberia each with 30 or more active vessels in 2018 (see Figure 2.3).



Figure 2.1: Age of reefers in years active in the FCWC region, 2018

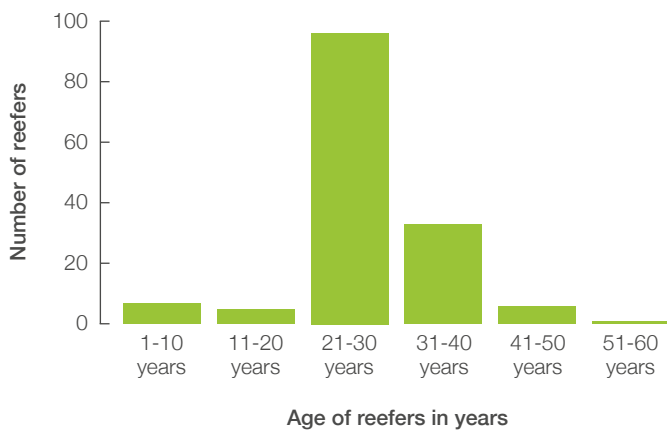


Figure 2.2: Capacity of reefers in gross tonnage active in the FCWC region, 2018

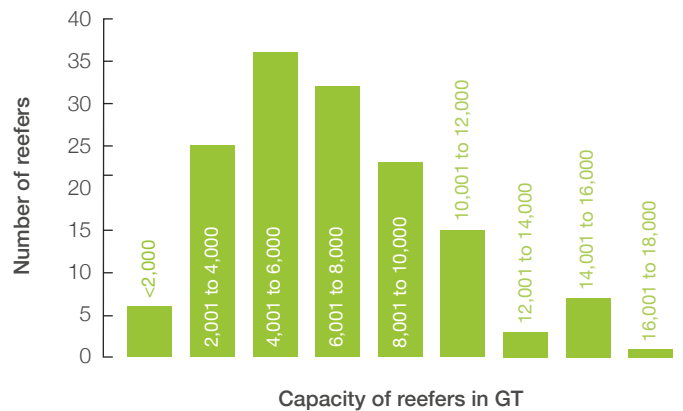


Figure 2.3: Reefer flag States with over five active reefers in the FCWC region, 2018

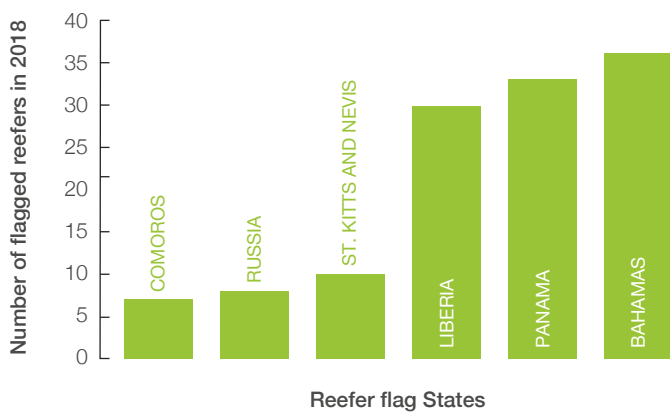
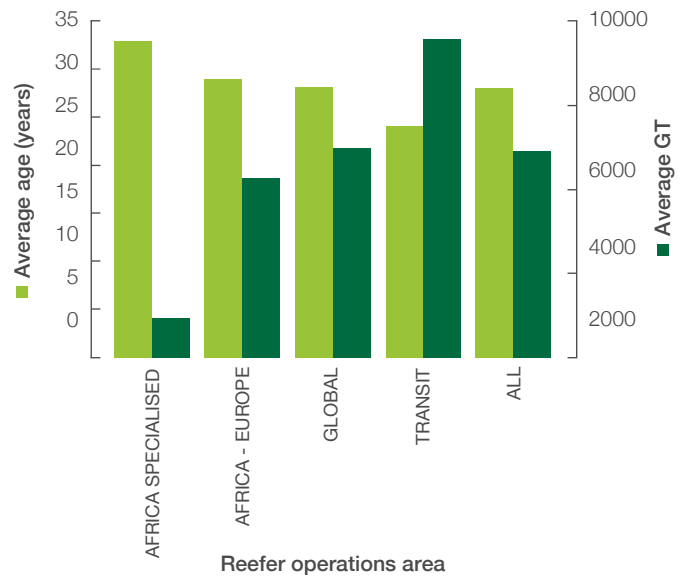


Figure 2.4: Reefer types, ages and gross tonnage active in the FCWC region, 2018



The following four sections describe the four main operational areas of the reefers identified in this study.



Africa specialised reefer operations



**16 vessels
operating in 2018**



**Age average 33 years
Age range 24 to 43 years**



**GT average 2,928
GT range 943 to 4,964
Most vessels only carry bulk cargo
Three with capacity to carry up
to 13 TEUs**

West Africa ports only

Seven reefers operated exclusively in West Africa. Of these, two reefers, VOLTA GLORY and VOLTA VICTORY, operated a regular route transporting tuna between ports in Ghana and Côte d'Ivoire.

Of the remaining five reefers, four operated regular routes between non-FCWC West African ports such as Freetown, Sierra Leone, Bissau, Guinea Bissau and Dakar, Senegal, calling at regional ports, including Tema, Ghana and Abidjan, Côte d'Ivoire in the FCWC region. The exception was the ZHOU YU LENG 7, which had no regular pattern, but was involved in transporting fish from Guinea-Bissau and Ghana to regional ports, including Dakar and Abidjan.

Reefers involved in regular shuttle operations between West African countries are usually servicing affiliated fishing fleets. The MENG XIN YU YUN 369 and the HAI FENG 823 are good examples of vessels displaying this operating pattern. Their operations reflect the fact that some vessel owners which operate in several West African countries through various subsidiaries and joint ventures, use their own reefers to transport their catch to key hubs, where they may own cold storage facilities and have access to global export services. In many cases, catch from these reefer vessels is offloaded in ports with container terminals such as Dakar, Tema and Abidjan, from where it is transported to global markets via container vessels.

TAVR operated exclusively in West Africa in the first half of 2018 but left the region in June 2018 and has since been operating between European ports under a new flag and different ownership.

Africa-wide ports

Nine vessels made all their port calls in African ports only. Operational areas were focussed on the Atlantic with most involved in at-sea transshipment, servicing vessels targeting small pelagics off Angola, Namibia, Mauritania and Senegal with regular routes to ports for offloading in the FCWC region.

HAI FENG 895, HAI FENG 898 and DUBREKA show a distinct operating pattern, making more than 90% of their port calls in Western Africa (covering the countries from Mauritania to Nigeria). The vessels HAI FENG 895 and HAI FENG 898 take a regular route between Mauritania, Senegal and countries in the Gulf of Guinea including Côte d'Ivoire, Ghana, Togo and Benin. While the operations of the HAI FENG 898 seem to rely mainly on direct transits between ports of the region, the operations of the HAI FENG 895 include regular visits to fishing grounds in Senegal, Guinea Bissau, Guinea, Sierra Leone and Liberia – with indications of potential transshipments at sea.

DUBREKA regularly travels between Sierra Leone, Liberia and Ghana, but also shows port calls in Mauritania, Angola and Guinea – where transshipments with industrial vessels targeting small pelagics have been documented.



Africa-Las Palmas reefer operations



12 vessels
operating in 2018



Age average 35 years
Age range 25 to 41 years



GT average 3,656
GT range 943 to 6,989
All vessels except one only carry bulk cargo
One vessel can carry up to 32 TEUs

Las Palmas port in Gran Canaria, Spain is a key transshipment and transit hub for fisheries products caught in western Africa and in the adjacent high seas (e.g. cephalopods, small pelagics, tuna, etc.). As such it is particularly significant for fisheries operations in the FCWC region and is a regular port call for many reefers operating in Africa, many of which don't visit other European ports. Las Palmas was historically considered a port of non-compliance, used for fish to gain access to the EU market with minimal oversight; however in recent years controls have significantly improved.

During 2018 three reefers (GABU REEFER, SALY REEFER, ZHOU YU LENG 8) operated exclusively between West African ports and Las Palmas. GABU REEFER and SALY REEFER are specialised in the transport of frozen small pelagic fish, mainly transhipped from fishing vessels in Guinea-Bissau.

The two vessels also make port calls in Las Palmas, where they are based and operated by the company West Coast Frozen Fish SA.

Nine vessels made 100% of their port calls to African ports and Las Palmas. More than 50% of their port calls in 2018 were to West African ports, but ports in South Africa and Mozambique were also visited. Analysis of the sequence of port visits and location of likely transshipment operations indicate that these vessels are involved, partially or exclusively, in the transport of small pelagic fish caught by large freezer trawlers and transhipped in Mauritania, Angola or Namibia. Regular port calls in Las Palmas might also indicate transshipment operations there.

Table 2.1: Analysis of reefers calling port exclusively in Africa and Las Palmas

VESSEL NAME	GT	TEU	POSSIBLE PLACE OF LOADING			TRANSIT, OFFLOADING AND LOADING PORTS						
			Angola	Namibia	Mauritania	Benin	Côte d'Ivoire	Ghana	Liberia	Nigeria	Togo	Las Palmas
CHINA FROST	4,999	0	✗	✓	✓	✓	✓	✓	✗	✓	✓	✓
FORLINE 1	4,878	0	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓
FOX BAY (Now Nevskiy)	3,835	32	✓	✓	✓	✗	✓	✓	✗	✓	✗	✓
FRIO MURMANSK	6,989	0	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓
ISLEMAN / SAN ELPIDIO	4,579	0	✗	✓	✓	✓	✓	✓	✗	✓	✓	✓
RANGIROA	3,246	0	✗	✗	✓	✓	✓	✗	✗	✓	✓	✓
REINA (Now decommissioned)	3,138	n/a	✗	✓	✓	✓	✓	✓	✗	✓	✓	✓
SOLARTE	3,298	0	✓	✓	✓	✗	✓	✓	✗	✓	✗	✓
TOKACHI FROST	3,936	0	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓



Africa-Europe reefer operations



**29 vessels
operating in 2018**



**Age average 26 years
Age range 10 to 45 years**



**GT average 7,317
GT range 1,327 to 15,292
Only four vessels do not have
TEU capacity and most have
considerable capacity up to a
maximum of 352 TEUs**

A large number of vessels appear to be engaged in the transport of small pelagic fish from fishing grounds in Northern Europe and Africa to the countries of the Gulf of Guinea. Those operations appear to rely greatly on transshipment, including in places where this activity is known to receive minimum oversight.

Some of these vessels appear to be involved in a triangular trade pattern – importing European-sourced small pelagic fish to the African continent, trading another type of catch intra-regionally (generally small pelagic species of African origin), and taking another product out of the region (possibly tuna). Linkages between this type of reefer operation and the operations of European-controlled fishing fleets in Africa (Mauritania, Angola, Côte d'Ivoire, etc.) can be noted.

Within this category, most vessels show a high level of specialisation in African operations, with 15 out of 21 vessels making more than 50% of their detected port calls in the African region – including five vessels that made more than 50% of their port calls in West Africa.

Some appear to specialise in the trade of small pelagic species between Western and Southern Africa, but with additional port calls in Northern Europe. GREEN BODO and the GREEN EGGERSUND have a regular route between Mauritania, Angola and West Africa, but also make regular voyages to European ports, some of which, such as the Faroe Islands, are sources of small pelagic fish.

Other vessels concentrate their operations in the fishing grounds of Northern Europe for part of the year, making a limited number of voyages to West Africa. These include the GREEN EXPLORER (port calls to the Faroe Islands, Iceland, Svalbard, etc.) and the NOVIY SVET (port calls in Svalbard, transshipment operations in the Barents Sea, etc.).

There are also several vessels that appear to alternate between operations in Northern Europe and intra-regional operations in West Africa. BASKUNCHAKSKIY and SUNNY LISA, for instance, operated in Northern Europe (Svalbard, Murmansk, etc.) for part of the year but also made regular round trips between Sierra Leone and Ghana for several months of the year.

Finally, there are a number of vessels with even more diverse operations. GREEN CRYSTAL, for instance, visited a variety of locations, including tuna hubs (e.g. Seychelles and Mauritius), small pelagic fishing grounds (e.g. potential at-sea transshipments in Angola) and ports in Europe, including tuna hubs and small pelagic fishing grounds (Spain, Netherlands, Faroe Islands, etc.).



Globally operating reefers



**60 vessels
operating in 2018**



**Age average 28 years
Age range 2 to 51 years**



**GT average 6,957
GT range 2,689 to 12,406
Most have capacity up
to a maximum of 258 TEUs**

Most reefers in this operational group were reefers making port calls in Africa, Europe and other regions. Only six reefers operated outside of Africa without calling port in Europe.

There is a high level of specialisation in African operations – with around half the vessels making more than 50% of their port calls in Africa, including four vessels making more than 50% of their port calls in the Western Africa sub-region (ANDROMEDA, GREEN MALOY, MONTECRUZ and SARONIC BREEZE).

Several vessels in this group show a pattern of operations indicating that they transport tuna between West African and European or Latin American tuna hubs. Reefers MONTELAURA and MONTECRUZ, for instance, have port calls in Galicia (Spain), Manta (Ecuador) and La Union (El Salvador) after their visits to Abidjan (Côte d'Ivoire) – where transshipment by these vessels with Spanish-owned purse seiners flagged in Latin American countries is known to take place.

Other reefers in this group appear to divide their operations between the transport of tuna between Africa and Latin America, and the trade in small pelagics. For example, the vessels GREEN AUSTEVOL, GREEN KARMOY, SIERRA LARA and SIERRA LEYRE visit tuna hubs in Africa: Abidjan (Côte d'Ivoire), Antsiranana (Madagascar), Port Victoria (Seychelles) and processing hubs in Latin America, in particular Posorja (Ecuador), Puerto Questzal (Guatemala) and La Union (El Salvador).

In addition, they also show operating patterns consistent with trading small pelagic fish e.g., transshipment at sea with a freezer trawler in Angola followed by a port call in Democratic Republic of Congo. Reefers are known to conduct transshipment operations with both pelagic freezer trawlers and with tuna purse seiners.



REEFER RISK FACTORS



Within the FCWC region there is limited opportunity for at-sea monitoring of reefers through patrols, and limited access to VMS information on reefers active in the region. Therefore, assessing the inherent risk of reefers through assessing different criteria enables fisheries inspectors to identify high, medium and low risk reefers is a useful tool.

Identifying vessels to prioritise during inspections, when reefers enter a port within the region, provides a useful means to rationalise capacity and resources. Identifying risk in this manner, is further supported by information sharing on risk criteria followed by a coordinated approach to inspections within the framework of the FCWC WATF.

Risk can be assessed in many ways, but this section explores risk related to five areas:

- **Encounters**
- **Loitering**
- **AIS gaps**
- **Compliance history**
- **Flagging issues**

The analysis and information provided in this section is based on the 2019 TMT and GFW study using 2018 data for reefers operating with an association with the FCWC region and transshipment of fish or fisheries products.

The first three areas of risk are associated to the interpretation of AIS data to understand potential encounters, bunkering, loitering and AIS gaps. The study identifies risk factors for the reefer vessels, based on the circumstances of potential transshipment encounters, such as the location, the source fishery, the type and risk profile of neighbouring vessels and any pattern of interest, such as transshipment hotspots. However, as AIS is not a tool developed for fisheries management but for vessel safety and its use is not mandatory in respect to fisheries activity including transshipment, this creates caveats in the information. Therefore, two other assessments of the vessels identified on AIS are included; an assessment of the vessels and the owners and operators' compliance history, and the flagging history of the vessel.



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ENCOUNTERS BETWEEN VESSELS

Encounters between vessels are identified using AIS data. An encounter is an interaction between two vessels where, based on direction and speed, it can be determined that the two vessels came alongside each other. Not all encounters represent transhipments of catch. There are many reasons why vessels meet up at sea, potential reasons include:

- Exchange of crew.
- Provision or exchange of supplies such as food, water and medicines.
- Exchange or movement of cargo.
- Support vessels delivering FADs or other gear.
- Supply of fuel.
- Vessel maintenance or repair, or supply of parts.
- Transhipment of catch.

Transhipment between an industrial fishing vessel and a reefer or factory ship to transfer fish usually takes hours, even days and takes place at very low speeds or stationery. Encounters do not indicate that illegal activity has taken place, but they do indicate where transhipment activity may have occurred, and which vessels were involved. This information can be checked to ensure that appropriate authorisations were in place, if transhipment is suspected to have occurred.

It is not possible to determine from the AIS data alone the reason for an encounter or the legality of a transhipment. However, consideration of the compliance history of the two vessels, company compliance, fishery area, and if the potential transhipment has taken place in known hot spot areas, may help to identify vessels that can be targeted or prioritised for an inspection either at-sea or in-port.

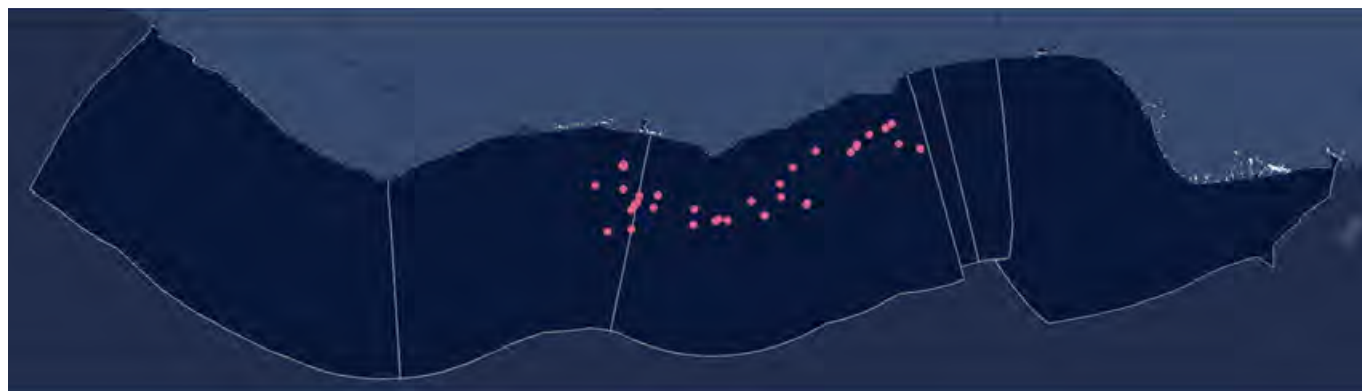
To determine the risk level of a reefer or fishing vessel involved in an encounter three risk indicators are commonly considered: duration, location and vessel speed.

ANALYSIS OF 2018 VESSEL ENCOUNTERS

The 2018 study of reefers active in the FCWC region included the identification of possible encounters by reefers. The algorithm used does not detect encounters in defined port or anchorage areas so transshipment of catch between fishing vessels and reefers at anchorage or in port is not included in this analysis. This explains the absence of some key source fisheries from this data – for example Mauritania, where the majority of transshipment is known to take place in port.

Encounters at sea in the FCWC region

Figure 2.5: Location of detected encounters between reefer and bunker/tanker vessels during 2018



In 2018, 26 reefer vessels were detected in encounters in the EEZs of the FCWC region. A total of 35 encounters were detected, 25 of which took place in the Ghana EEZ and 10 in the EEZ of Côte d'Ivoire.

No encounters were detected with fishing vessels, but this does not necessarily indicate that none occurred. Given that transshipment at sea is banned throughout the FCWC region, it is to be expected that any transshipment would involve one or both vessels going dark on AIS – so any such events during 2018 would be more likely to be detected as a single vessel loitering event.

All detected encounters were with 11 bunker/tanker vessels. Just four vessels were responsible for 26 of the 35 encounters, and one vessel (CURACAO TRADER) was responsible for approximately a third (11) of the detected encounters. Just over half – six of the 11 bunker/tanker vessels – were detected in an at least one reefer encounter in both the Ghana and Côte d'Ivoire EEZs during 2018.

Bunkering supports industrial fishing vessels to remain at sea for longer and increases operational and cost efficiencies. The bunkering operation requires similar manoeuvring at sea as that found in transshipment to a carrier vessel: the two vessels come alongside each other at very slow speeds. Monitoring of these activities using vessel positional data requires a similar approach. Both fishing vessels and reefers are refuelled by bunkering vessels. Regulation of bunkering varies significantly globally, in some countries and RFMOs the activity has some level of regulation, in others it is unregulated and unsupervised.



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Encounters at sea in Angolan EEZ

There were 22 encounters detected in the Angolan EEZ, involving five factory trawlers and 12 reefers.

Fishing vessel risk characteristics:

- Transmitted very infrequently on AIS during 2018. All vessels appeared to transmit on AIS only for short periods around port visits and encounters. Most of the fishing activity by these vessels was not visible on AIS.
- At the time of the detected encounters, all five vessels were flagged to Georgia. The majority reflagged to Cameroon in 2019. Both Georgia and Cameroon are considered to be high risk flag States due to low levels of fleet monitoring and control.
- Several of the vessels also have a history of flag-hopping or have previously operated under other high risk, open registry flag States.

Reefer vessels risk characteristics:

- Reefers were detected operating in the EEZ for a period of up to two weeks, with only one vessel encounter detected during that time. This suggests that the reefers may also be conducting transshipment with fishing vessels that are not visible on AIS.
- Analysis of reefer voyages indicates that the majority travelled to the FCWC region within a short timeframe after the detected encounters in Angola, which indicates a good likelihood that fish from these vessels is imported into the FCWC region.

Two of the vessels – FREDRIKSHAMN and OLUTORSKY had AIS gaps whilst transiting through the Namibian EEZ, during which the inferred speed (based on distance covered and time elapsed) was significantly lower than the vessel's usual transit speed, indicating that they could have engaged in transshipment operations during these periods.



Figure 2.6: AIS tracks of the FREDRIKSHAMN (blue) and OLUTORSKY (yellow) showing significant AIS gaps (dotted red) in the Namibian EEZ in red (2018)

Gap 1

FREDRIKSHAMN disappeared from AIS approximately 100nm outside Walvis Bay and reappeared just inside the Angolan EEZ boundary, inferred speed approximately 5.5 knots (24 – 27 May 2018).

Gap 2

OLUTORSKY disappeared from AIS approximately 100nm outside Walvis Bay and reappeared in port, inferred speed approximately 2.5 knots (5 – 7 June 2018).

Gap 3

OLUTORSKY disappeared from AIS approximately 17nm outside Walvis Bay and reappeared inside the Angolan EEZ (8 – 11 June 2018).

Encounters at sea globally

Global at-sea encounters outside the FCWC EEZs were analysed for the 116 vessels that had at least one anchorage visit in the FCWC region. Whilst encounters that occur outside the FCWC region do not represent a risk for illegal transshipment or other operations inside FCWC EEZs, they can provide an indication of the likely source and associated IUU risk of catch entering the region.

Of the 116 vessels analysed, 60 were detected in one or more encounter globally – with a total of 314 encounters detected, including those that took place in FCWC EEZs. These included a total of 187 at-sea encounters with fishing vessels, all of which took place outside the FCWC region, involving just 22 of the reefers.

The 314 encounters involved 127 neighbour vessels, of which 89 were fishing vessels.

More than 40% of all fishing vessel encounters occurred in the Russian EEZ (83 encounters involving 32 fishing vessels). Reefers operating in this fishery made regular port calls in neighbouring countries, indicating that the majority of this catch was likely not transported out of the region. However, some reefers operating in the northwest Pacific did travel to West Africa directly or shortly after departing the region, which suggests there is potential for some trade in fish products from the northwest Pacific to the FCWC region.

Figure 2.7: Global distribution of detected encounters (2018)

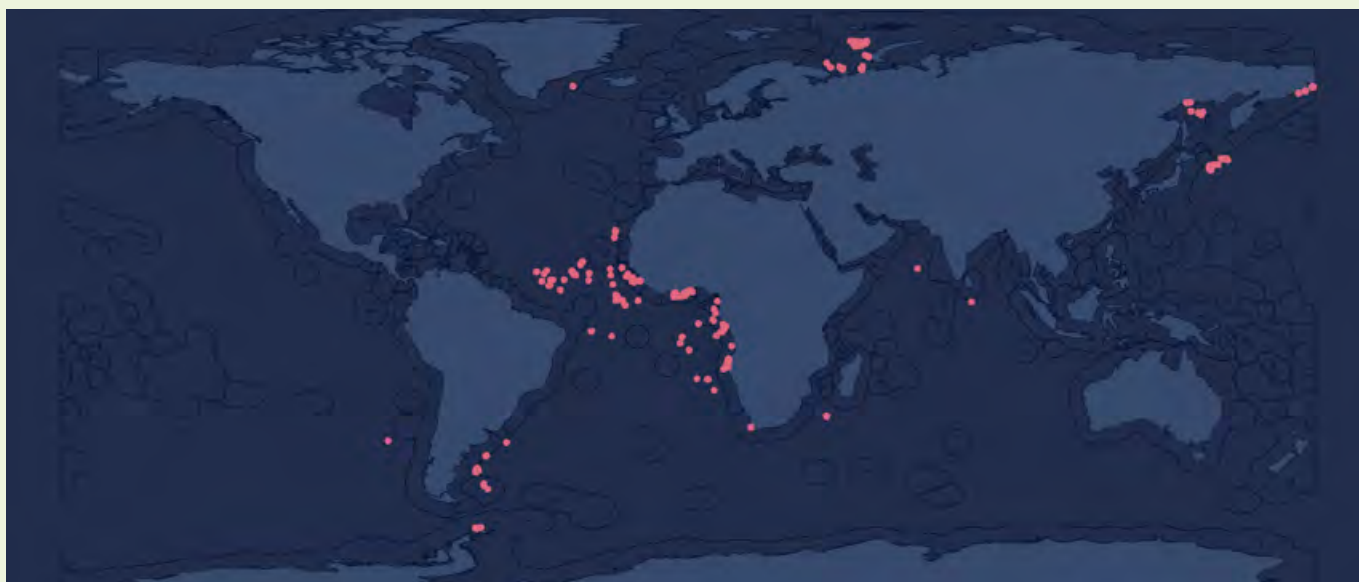


Table 2.2. Number of encounters with different neighbour vessels categories (2018)

Neighbour vessel category	Number of encounters	Number of neighbour vessels
Unknown	1	1
Cargo	20	9
Fishery patrol vessel	1	1
Fishing vessel	187	89
Platform supply ship	1	1
Tanker	101	25
Tanker/Cargo	3	1
Total	314	127



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LOITERING

Loitering events occur when a vessel displays a loitering pattern at sea, similar to that shown during an at-sea encounter, but no other vessel is detected alongside. Loitering events are also described as ‘drift’ events.

There are many reasons for reefers to loiter at sea:

- Awaiting orders.
- Awaiting a free berth in port.
- Waiting for or undergoing repairs.
- Waiting for a pre-arranged rendezvous or transhipment.

However, these events can also indicate encounters at sea with vessels that are not tracking on AIS (fishing, supply or bunker vessels), which may or may not be legal depending on the location. It is not possible to conclusively determine the reason for a drift event based on AIS analysis alone, however by analysing the frequency and distribution of loitering events by vessel and location, it is possible to gain insights into vessels and areas that could be a particular focus of MCS efforts aimed at detecting and preventing illegal transhipment at sea.

For the purpose of this analysis, a loitering event was defined as a vessel drifting or operating at low speed (below 4 knots) for a duration of more than four hours, at an average distance from shore of more than 20nm.

Loitering events on voyages to the FCWC region

A total of 1,208 loitering events were detected outside of the FCWC region, by vessels that later came to the region, with a total cumulative duration of 57,318 hours, which represents an average loitering duration of 47.2 hours.

Loitering outside of the FCWC region is of interest primarily because it could indicate potential transhipment of catch imported to the region. Therefore, loitering events that took place during FCWC-bound voyages are the most relevant – of which there were 174 events. The vessels in Figure 2.9 are responsible for half of those events:

Figure 2.8: Top loitering areas (excluding FCWC region) based on global events (2018)

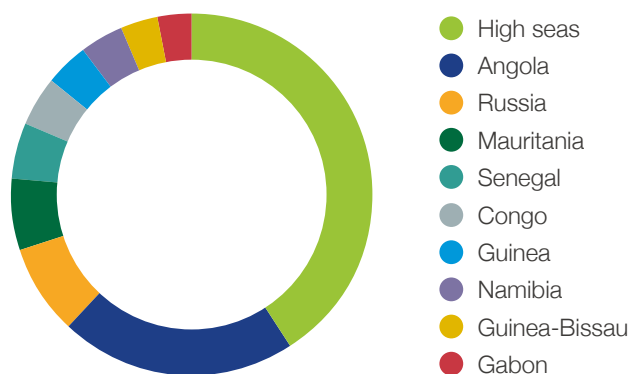
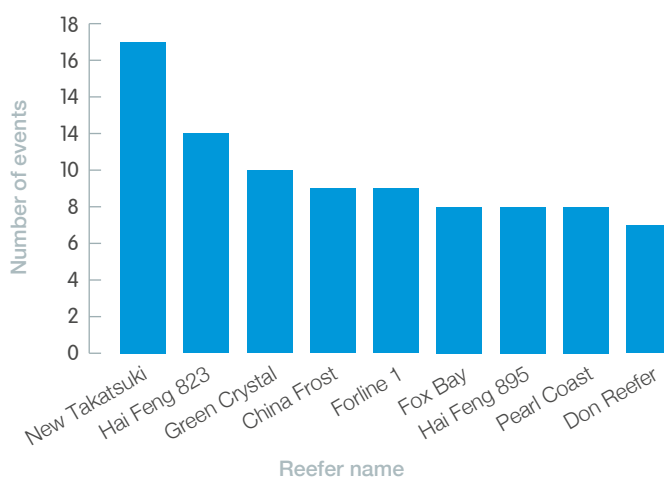


Figure 2.9: Top loitering transport vessels with events on voyages to the FCWC region (2018)



LOITERING HOTSPOTS

At global level, three clusters of loitering events on voyages to the FCWC region were identified.

In the Angola EEZ

75 out of 169, or 44% of the identified loitering events took place in the EEZ of Angola. The average duration of those loitering events was 42 hours. In 45 cases out of 75, the next port of call following the loitering event in Angola was Tema, Ghana.

It is considered likely that at least some of these loitering events involved transshipment at sea as Angola is an established source of small pelagic fish exported to the FCWC region. This would explain the relatively low number of at-sea encounters detected relative to the amount of time reefers spent operating in Angola.

Whilst transshipment at sea is not illegal in the Angolan EEZ (an authorisation is required), the fact that transshipments may be taking place with vessels that are not transmitting on AIS may be considered a source of some risk, as the identity and operations of the fishing vessels involved are not known.

A total of 15 reefers are responsible for the 75 loitering events detected in the Angolan EEZ, with the top four vessels accounting for half of the detected events.

Table 2.3: Top loitering events within the Angolan EEZ

Vessel name	Number of events	Total loitering hours	Average duration
NEW TAKATSUKI	17	502	29
GREEN CRYSTAL	10	229	22
PEARL COAST	7	168	24
FORLINE 1	6	217	36
FOX BAY	6	271	45
DON REEFER	4	284	71
NOVAYA ZEMLYA	4	152	38
SCOMBRUS	4	127	31
DELTA REEFER	3	391	130
GREEN CONCORDIA	3	191	63
GREEN EGRSUND	3	215	71
GREEN MALOY	3	88	29
GREEN SELJE	2	128	64
NOVA CALEDONIA	2	176	88
GREEN BODO	1	4	4

On the high seas outside the Angola EEZ

A total of 12 out of 35 events that took place on the high seas were located just outside of the Angolan EEZ, with 11 of them occurring during Benin-bound voyages (coming from Namibia or Nigeria). The average duration of those loitering events was 44.9 hours.

Five reefer cargo ships are responsible for the 12 loitering events, with the top vessel CHINA FROST alone accounting for half of those loitering events.

Table 2.4: Top loitering events on the high seas outside the Angola EEZ

Vessel name	Number of events	Total loitering hours	Average duration
CHINA FROST	6	301	50
DON REEFER	2	84	42
TOKACHI FROST	2	68	34
REINA	1	18	18
SOLARTE	1	55	55

On the high seas outside the Nigerian EEZ

Nine of the 35 events that took place on the high seas were located just outside the Nigerian EEZ, with all of them occurring during Nigeria-bound voyages. This hotspot is associated with a holding pattern prior to transit into the Nigeria EEZ, with reefers often drifting in holding areas far offshore when awaiting a free berth in Nigerian ports, in order to avoid piracy risks. No IUU risk level is assigned to these events. The average duration of those loitering events was 31 hours.

A similar pattern is observed in the Nigeria – São Tomé and Príncipe Joint Development Zone, where eight loitering events (seven of which were on Nigeria-bound voyages) were detected.



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AIS GAPS

AIS transponders or units are designed to routinely and mechanically provide position and identification information about vessels via satellite or shore-based receivers. In 2000, the International Maritime Organization (IMO) adopted a new regulation that requires AIS transponders to be fitted aboard all ships of 300 GT and upwards engaged on international voyages, as well as cargo ships of 500 GT and upwards not engaged on international voyages. The vessel is required to keep its AIS transponder operational at all times except where international agreements, rules or standards provide for the protection of navigational information. Reefer vessels intentionally turning their AIS transponders off without good cause, are violating international legislation.

When the data transmitted by an AIS transponder is interrupted it is called an 'AIS gap'. AIS gaps may be because of technical issues, for example:

- **AIS unit failure** – resulting in the transponder not functioning and the AIS transmission being interrupted.
- **Receiver failure** – resulting in gaps in coverage due to the satellite or shore-based receivers not fully functioning.
- **Weak signal** – this may particularly occur if a Class B AIS transponder³ is installed as these tend to have weaker signals which may not be detected, predominantly if a vessel is in high traffic areas.

AIS gaps can also occur due to AIS transponders being deliberately switched off or turned down, this could be to:

- **Avoid detection by authorities** – such as to hide their location, activity or contact with other vessels that may indicate IUU fishing or other illegal activity.
- **Avoid detection by pirates** – to reduce the risk of detection in areas with a high risk of piracy.

It is not possible to determine from the AIS data alone the cause of any single AIS gap or why AIS coverage is broken. However, analysis of AIS gaps can provide insight into possible IUU fishing risk as vessels that regularly disappear from AIS coverage or keep their AIS off for long periods, are harder to monitor for MCS purposes, creating suspicion as to why they, most likely, deliberately turn off their AIS unit.

Reefers and cargo vessels that regularly turn off their AIS are particularly concerning for MCS officers as these vessels are unlikely to be visible on a coastal State vessel monitoring system (VMS). Vessels that regularly or systematically switch off their AIS unit indicate a potential high-risk vessel from an MCS perspective. These vessels would then be a target or priority for fishery inspections either at sea or in port.

³ When AIS was first developed, only a single type of vessel transponder was available, known today as 'Class A' transponders. In 2006 a lower-cost and slightly less robust version of AIS, called 'Class B' became available. It is most common for cargo reefers to have Class A transponders.



To determine the risk level of a reefer or cargo vessel demonstrating AIS gaps, four risk indicators were considered:

Risk indicator Risk level

Duration	The longer an AIS gap the more likely that the gap is due to deliberate behaviour indicating possible IUU fishing or other illegal activity has taken place.
Location	If an AIS gap occurs close to shore it is considered that IUU fishing or other illegal activity is less likely to have occurred, as it is more likely to be deterred by other MCS means.
Distance covered	The greater the distance covered by an AIS gap the more likely that the gap is due to deliberate behaviour indicating IUU fishing or other illegal activity is more likely to have taken place.
Vessel speed	The implied speed, based on time elapsed and distance travelled in a straight line between the start and end locations of an AIS gap, indicates whether the vessel has sailed at cruise speed or if it has operated at low speed (below 5 knots), moored or called port. During longer gaps inferred speed will usually be higher than 5 knots even if the vessel has spent a portion of the time period loitering, so this method is only useful to identify potential operations during relatively short AIS gaps.

AIS GAPS: FCWC REGION

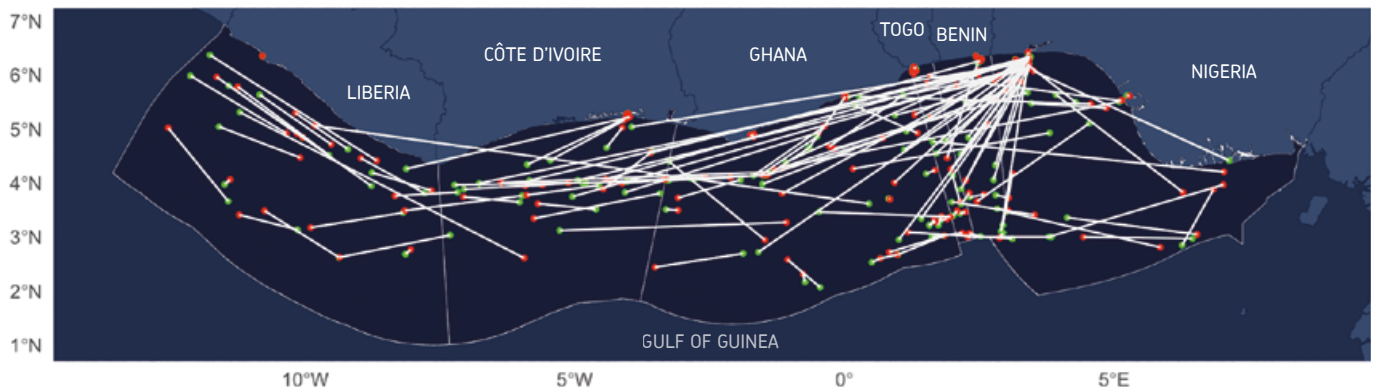


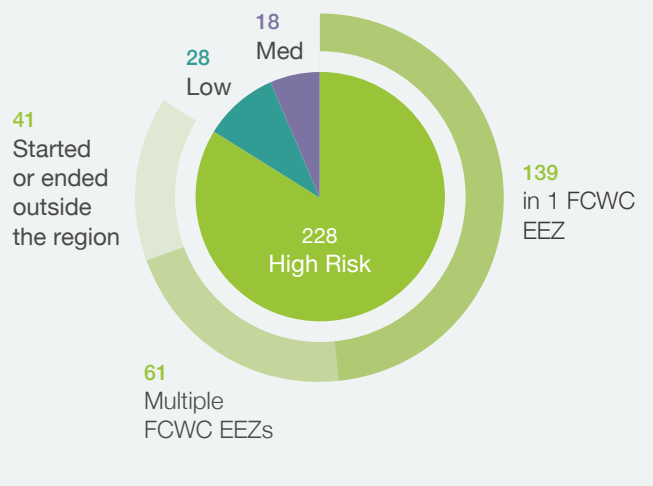
Figure 2.10: Active conventional and container reefer AIS gaps of more than seven hours, that start and end within an FCWC country EEZ (2018). Start (green) and end (red) locations.

Based on the four risk indicators AIS gaps that started or ended in the FCWC EEZs in 2018 were analysed and allocated as high-risk, medium-risk or low-risk for MCS purposes.

A total of 274 AIS gaps lasting seven hours or more were detected. The average duration of a high risk gap was 44 hours, whilst low and medium risk gaps were considerably shorter in duration.



Figure 2.11: Allocation of risk category to AIS gaps in the FCWC region in 2018





Across all categories there is a noticeable concentration of AIS gaps that either start or end in the eastern Gulf of Guinea, in the EEZs of Cameroon, Equatorial Guinea or São Tomé and Príncipe.

AIS gaps in one FCWC EEZ

The majority of detected medium-risk and high-risk AIS gaps (139, 56%) started and ended within the same FCWC EEZ. In total, 62 of those gaps (44%) started and ended in the Ghana EEZ, with an average gap duration of 16 hours and covering an average distance of 52km. Gaps starting and ending inside each of the other EEZs accounted for 7 to 12% of all medium-risk to high-risk gaps per EEZ.

AIS gaps within multiple FCWC EEZs

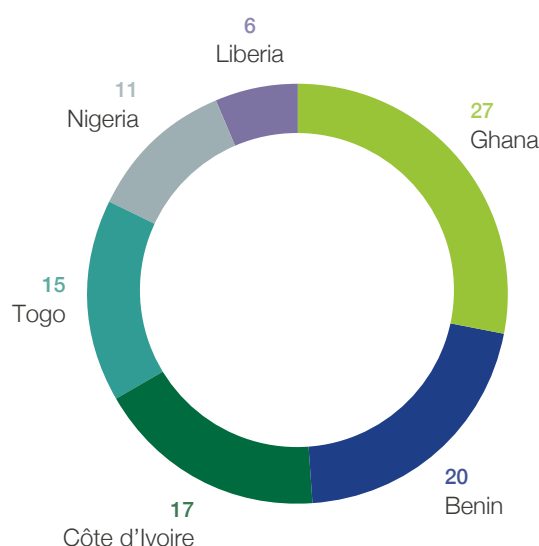
Overall, 27% of all detected medium-risk and high-risk gaps started and ended within the FCWC region (including the Nigeria-São Tomé and Príncipe shared management zone) but occurred across multiple EEZs.

Of the 61 gaps that fall into this category, nearly half (27) started or ended in Ghana, and more than half of those (14) were AIS gaps occurring between the Ghana and Nigeria EEZs. This may reflect that Ghana to Nigeria (and the reverse) is one of the more common inter-regional reefer voyages, and vessels are more likely to switch AIS off for a portion of the journey due to security concerns in the Nigerian EEZ.

AIS gaps starting or ending outside the FCWC region

Across all categories there is a noticeable concentration of AIS gaps that either start or end in the eastern Gulf of Guinea, in the EEZs of Cameroon, Equatorial Guinea or São Tomé and Príncipe. This may reflect vessels switching AIS off in response to security threats in and around the Nigerian EEZ.

Figure 2.12: Detected medium-risk and high-risk gaps for reefer and cargo reefer vessels by FCWC EEZ (2018).



AIS GAPS: GLOBAL



Figure 2.13: Global distribution of AIS gaps greater than seven hours for FCWC active reefers and cargo vessels 2018. Map shows gap start location.

In the analysis of reefers and cargo reefers in 2018, a total of 4,154 AIS gaps were detected globally. Of these gap events 638 were categorised as high-risk based on their location (starting or ending more than 5km from shore). If these also had an inferred speed of 5 knots or less, they were classified as low-speed, high-risk events. These 638 events had a total cumulative gap duration of 26,127 hours. Overall, 80 vessels were responsible for those 638 events, with just 11 vessels responsible for 50% them.

The list of vessels with the greatest cumulative duration of gaps through 2018 is slightly different, with nine vessels responsible for 50% of total AIS gaps by duration (see Figure 2.13) – of which only two (BAY PHOENIX and HAI FENG 898) also appear on the list of vessels with the greatest number of total gaps. This comparison identifies vessels that are potentially switching off their AIS unit for the full duration of voyages between ports – which is considered a very high-risk practice not only from the point of view of fishery MCS but also for navigational safety.

Figure 2.14: FCWC active reefer and cargo vessels responsible for 50% of all low-speed, high risk AIS gaps globally (2018)

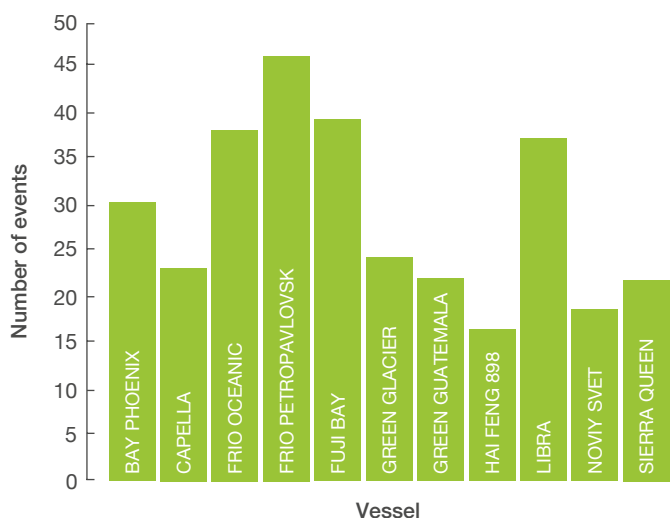
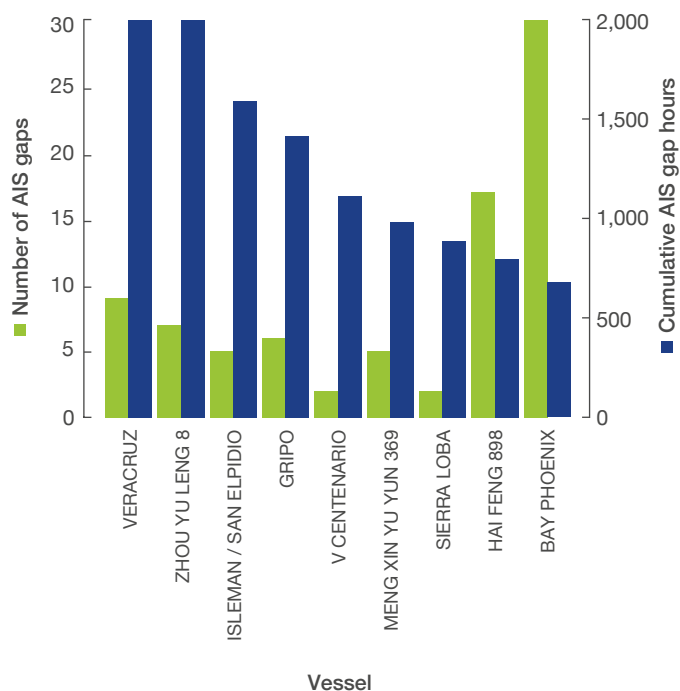
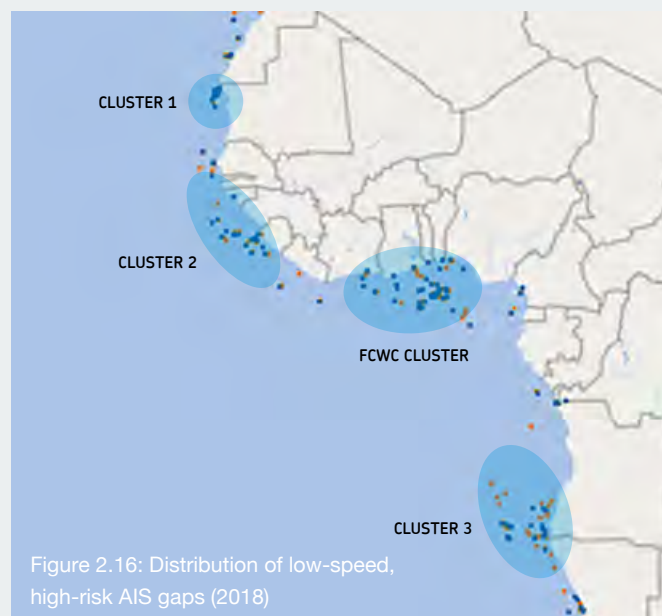


Figure 2.15: Reefer and cargo vessels responsible for 50% of all low-speed, high risk AIS gaps globally (2018)



AIS GAPS: TRANSHIPMENT HOTSPOTS

All low-speed, high-risk AIS gaps were plotted onto a global map to assess their geographic distribution. In addition to AIS gaps located in and around the FCWC area, three clusters of low-speed, high-risk AIS gaps can be observed on the Atlantic coast of Africa.



Cluster 1: Nouadhibou, Mauritania

A cluster of 135 low-speed, high-risk AIS gaps were detected off the coast of Mauritania, with most of the events located within a 50nm radius from the port of Nouadhibou. Twenty-four reefer cargo ships are responsible for those 135 gaps, with the top four vessels accounting for half of them: LIBRA, FRIO OCEANIC, CAPELLA and FOX BAY. LIBRA, which in 2018 seemed to be specialised in transporting fish from Northern Europe and Mauritania to countries of the Gulf of Guinea – as well as visiting tuna hubs such as the Seychelles – accounts for 27 events with an average of nine hours duration.

Cluster 2: Senegal to Sierra Leone

A cluster of 26 low-speed, high-risk AIS gaps were detected off the coastline that stretches from Senegal in the North to Sierra Leone in the South. Eight reefer cargo ships are responsible for those 26 gaps, with the top two vessels accounting for half of them: HAI FENG 823 and ZHOU YU LENG 8. Reefer HAI FENG 823 specializes in servicing Chinese-owned fishing fleets in West Africa and accounts for 11 events of 22 hours average duration.

Cluster 3: Angola

A cluster of 22 low-speed, high-risk AIS gaps were detected off the coast of Angola, or near the Angola-Namibia border. This is an area of high loitering and high encounter intensity. Nine reefer cargo ships are responsible for those 22 gaps, with two vessels accounting for half of them: VERACRUZ and NOVAYA ZEMLYA. VERACRUZ, which in 2018 appeared to specialise in transporting fish from Namibia and Angola to Côte d'Ivoire, based on inspection logs from port calls in Abidjan, Togo, Benin and Democratic Republic of Congo, accounted for seven events of 214 hours average duration.



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HISTORY OF NON-COMPLIANCE

Using information on past violations or non-compliance to legislation is a common method used as part of conducting risk assessment before flagging or licensing a fishing vessel or allowing a fishing vessel to access port and use port services. A similar procedure can be used as part of the risk assessment approach for reefers, by assessing their history of non-compliance as an indicator of risk.

A history of non-compliance may relate to the vessel itself or to the owners or operators. Non-compliance may be recorded in publicly available information such as IUU vessel lists, or reports of legal cases and penalties, or in more informal records such as those compiled by the WATF and the FCWC Regional MCS Centre.

Regional records of past cases are extremely useful and relevant, and even when acts of non-compliance have not resulted in penalties, they still provide an indicator that the vessel or the owners or operators of that vessel have been involved in suspicious activities in the past.

Repeat offenders are of particular concern and if a vessel or the owners or operators appear regularly in past events of non-compliance, they should be considered high risk and prioritised for inspection when possible, either at sea or in port.

Non-compliance may involve violation of various types of legislation, including national, regional or international rules that apply to reefer vessels. These may be related to fisheries, maritime, labour or other sector specific legislation.

Non-compliance by reefers occur in four main areas of activity:

Operational or vessel identity violations

In general, reefer violations are usually less complex than those of fishing vessels as, for example most fishery related legislation will not apply to reefers. However, reefers are subject to international maritime regimes which fishing vessels are often exempt from.

- Failure to transmit on AIS and/or VMS as required by international and flag State requirements.
- Falsified or fraudulent vessel identity.
- Misrepresentation of the vessel size of capacity.
- Failure to meet safety requirements.
- Crew and human rights abuses.
- Pollution.

Unauthorised transhipment

The most common violations for reefers relate to unauthorised transhipment, involving transhipping in the wrong place or not having the correct authorisations.

This may be detected through false or fraudulent use of documents, lack of the correct documents, and vessel tracking data. Gaps in or failure to transmit on AIS and VMS can indicate concealment of transhipment activity.

Transporting illegally caught fish

Although the original violation of catching fish illegally lies with the catching vessel, by accepting the catch other compliance issues are brought to the reefer when transhipment occurs.

These violations are identified through risk assessment checks, inspections and vessel tracking.

Misreporting or underreporting fish landings

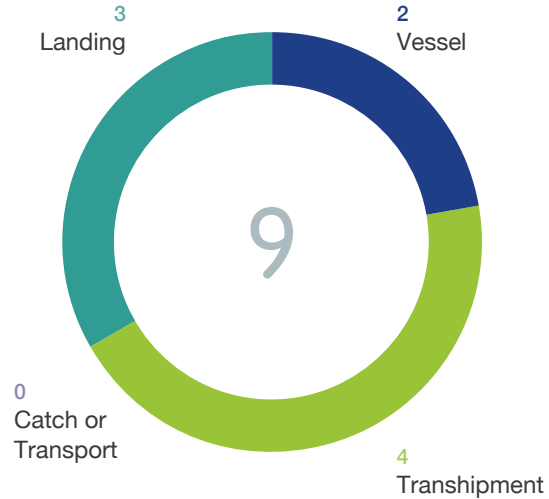
This can occur in an effort to disguise the landing of illegally caught fish or may involve the under-representation of the quantity of fish to be offloaded in an effort to avoid tax and customs charges.

These violations are identified through inspections and vessel tracking.

All these violations may also involve or be facilitated by crimes including document forgery, fraud, bribery or corruption. The exploitation of legal regulatory gaps and loopholes may also include the use of flags of convenience to hide the identity of owners and minimise the risk of legal sanctions and financial penalties.

A history of non-compliant behaviour was detected in relation to reefer vessels or reefer owners or operators that were associated to the FCWC region in 2018.

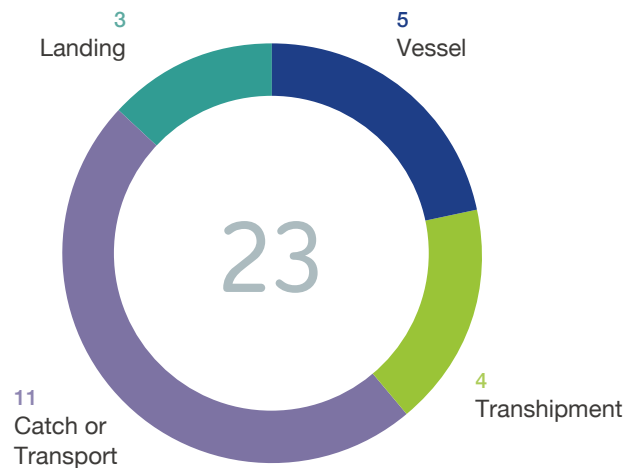
Figure 2.17: Vessels with a history of non-compliance. Nine cases of non-compliance were identified.



Nine of the 2018 active reefers were found to have a history of proven or suspected non-compliance whilst operating under the same ownership or control.

It should be noted that vessels’ compliance history is based on incidents already analysed by the WATF or publicly reported, so it is possible that other vessels on the list may have engaged in non-compliant behaviour that has not been detected or reported.

Figure 2.18: Owners and operators with a history of non-compliance. 23 cases of non-compliance were identified.



A total of 78 of the reefers in this analysis were found to be owned, operated or managed by companies with a history of non-compliant behaviour (which includes non-compliance by another vessel in the company fleet).



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FLAGGING ISSUES

Vessel owners and operators select flag States for their vessels for a variety of reasons – including tax benefits, anonymity, high or low levels of compliance with international treaties and standards and ease of access to the registry.

Flagging out

Vessels that are flagged in a different jurisdiction to that where the beneficial owner is based are referred to as 'flagging out'. The UNCLOS states the need for a 'genuine link' between the real owner of a vessel and the flag the vessel flies. Flag States can find it more difficult to enforce regulations and impose sanctions when beneficial owners are located in a third country. Whilst flagging out does not mean that the vessel is non-compliant it is considered a risk factor for non-compliance.

Flags of convenience

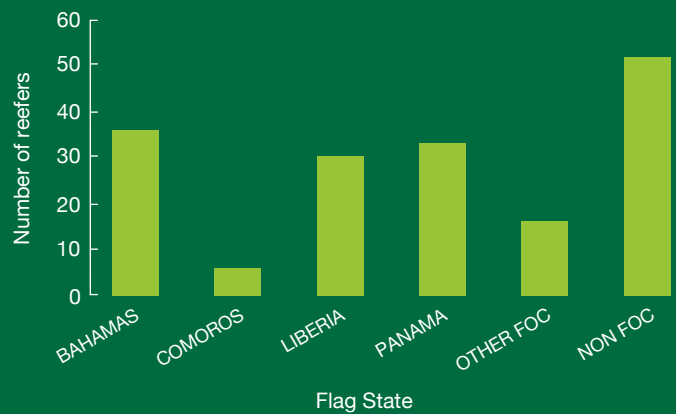
When flagging out, flags of convenience (FOC) are often used. These are considered high risk, based on their limited capacity to manage and control vessels under their flag, and low uptake of key international treaties in areas such as maritime safety. In many cases, the registries themselves are not even run from the country of the flag.

Whilst there is no globally agreed list of flags of convenience several factors are generally agreed to form part of their operational pattern, including:

- No requirement for a genuine link between owner and flag State.
- Minimal checks when registering the vessel.
- Minimal oversight and regulation.
- Cheap registration fees.
- Low or no taxes.
- Freedom to employ cheap labour from the global labour market.

A breakdown of all FCWC active vessels by flags used during 2018 using the International Transport Workers' Federation (ITF) list of FOC (this lists countries that have been declared FOCs by the ITF's fair practices committee, a joint committee of ITF seafarers' and dockers' unions, which runs the ITF campaign against FOCs.)

Figure 2.19: Reefers active in the FCWC region using ITF declared flags of convenience (2018)





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Flag State controls and responsibility

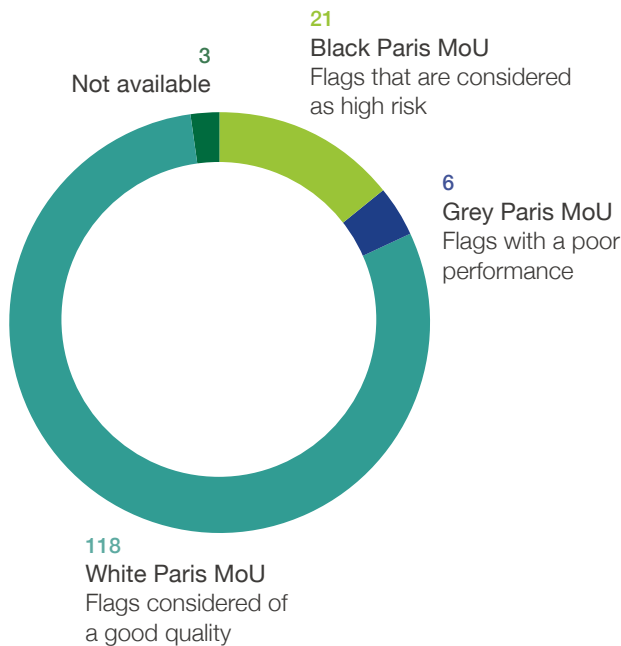
It is the flag State of a vessel that is responsible for ensuring that a vessel is compliant with all required legislation. The legislation that vessel owners and operators are required to comply with will depend on the national legislation of the flag State which is determined by the international agreements that the flag State has become party too and it's commitments in respect to those agreements.

One such agreement is the Paris Memorandum of Understanding (MoU) on Port State Control, an administrative agreement between 27 maritime authorities aiming to eliminate the operation of sub-standard ships through a harmonised system of port State control. It was originally developed to deal with enforcement of shipboard living and working conditions but also covers safety of life at sea and prevention of pollution by ships. It works on the principle that the prime responsibility for compliance lies with the shipowner and operator, while the responsibility for ensuring such compliance remains with the flag State.

Each year the Paris MoU publishes a normative listing of flags based on the total number of inspections and detentions over a three-year rolling period for flags with at least 30 inspections in the period. Annually more than 17,000 inspections take place on board foreign ships in the Paris MoU ports, ensuring that these ships meet international safety, security and environmental standards, and that crew members have adequate living and working conditions.

Considering reefers operating in the FCWC region a number were operating with flags that are considered to be high risk, based on their limited capacity to manage and control vessels under their flag, and low uptake of key international treaties in areas such as maritime safety (see Figure 2.20).

Figure 2.20: Reefers active in the FCWC region and their Paris MoU status (2018)



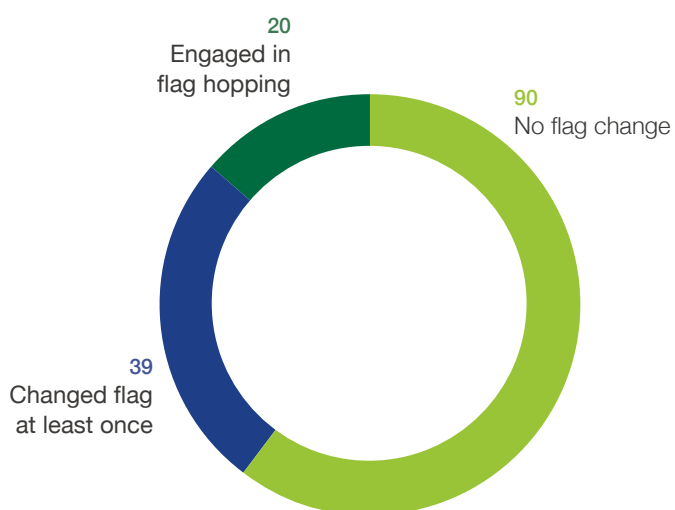


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Changing flag State

Vessel ownership and flag history was analysed to identify vessels that had reflagged whilst under their current (2018) control (defined as vessels that changed flag since first coming under the control of their current owner/operator, whichever started earlier). Flagging history was also analysed to identify vessels that engaged in flag hopping whilst under their current control.

Figure 2.21: Reefers active in the FCWC region and their frequency of changing flag (2018)



Flag hopping

When vessels switch flag multiple times in a relatively short space of time, whilst remaining under the same beneficial ownership and operator control, this is known as flag hopping. Flag hopping can be done to secure access to benefits such as fishing access and subsidies, for example in cases where one flag State confers good subsidies, and another confers fishing access a vessel may switch back and forth between those two flags in order to benefit from both.

However, in some cases, flag hopping is to evade flag State sanctions or takes place alongside a name change in an attempt to avoid detection by authorities, e.g. where a vessel has been involved in non-compliance under a previous name and/or flag.

There is currently no standard accepted definition to determine whether flag hopping has occurred – for the purpose of this analysis a vessel was considered to have engaged in flag hopping if it meets any of the following criteria:

- The vessel has flagged in and out of the same registry multiple times whilst under current ownership.
- The vessel has spent less than one year under at least one flag whilst under current ownership.
- The vessel has spent less than two years under at least two flags whilst under current ownership.




REEFER CASE STUDIES

These case studies have been selected to provide a snapshot of transshipment activities involving reefers. They show where, what and how fish are transhipped and also highlight risk factors associated with the vessel activity.

 VESSEL NAMES	PAGE NUMBER	 OPERATIONAL AREA				 TRANSHIPMENT LOCATION		 TRANSHIPMENT TYPE	
		Africa specialised	Africa-Europe	Africa-Northern Europe	Global	In port	At sea	FV to reefer	
VOLTA GLORY and VOLTA VICTORY	78	●				●	●	●	
MENG XIN YU YUN 369	80	●				●	●	●	
GABU REEFER, SALY REEFER and SILVER ICE	82	●	●			●	●	●	
GREEN AUSTEVOLL and GREEN MALOY	84				●	●	●	●	
ACONCAGUA BAY	86				●	●			
HAI FENG fleet	88	●				●	●	●	
ZHOU YU LENG 8	90		●			●	●	●	
SAN ELPIDIO	91		●			●	●	●	
FRIO CHIKUMA	92				●	●	●	●	
VERACRUZ	94	●	●			●	●	●	

● IDENTIFIED ● SUSPECTED

		 SPECIES					 RISK INDICATORS				
	Reefer to reefer	Factory vessel to reefer	Small pelagics	Demersal	Tuna	Crustaceans and molluscs	Encounters	Loitering	AIS gaps	Compliance	Flagging issues
			●	●	●			●	●	●	
			●	●	●			●	●	●	●
			●				●	●		●	●
			●	●	●			●	●		
			●	●	●			●	●		
	●	●	●	●			●	●	●	●	
	●	●	●	●			●	●	●		
	●	●	●	●			●	●	●		
	●	●	●	●	●	●	●	●	●	●	●
			●					●	●		●



CASE STUDY

VOLTA GLORY and VOLTA VICTORY

Tuna reefers supplying canneries in Tema and Abidjan



In port
At sea (suspected)
Fishing vessel to reefer
Reefer to port



Tuna



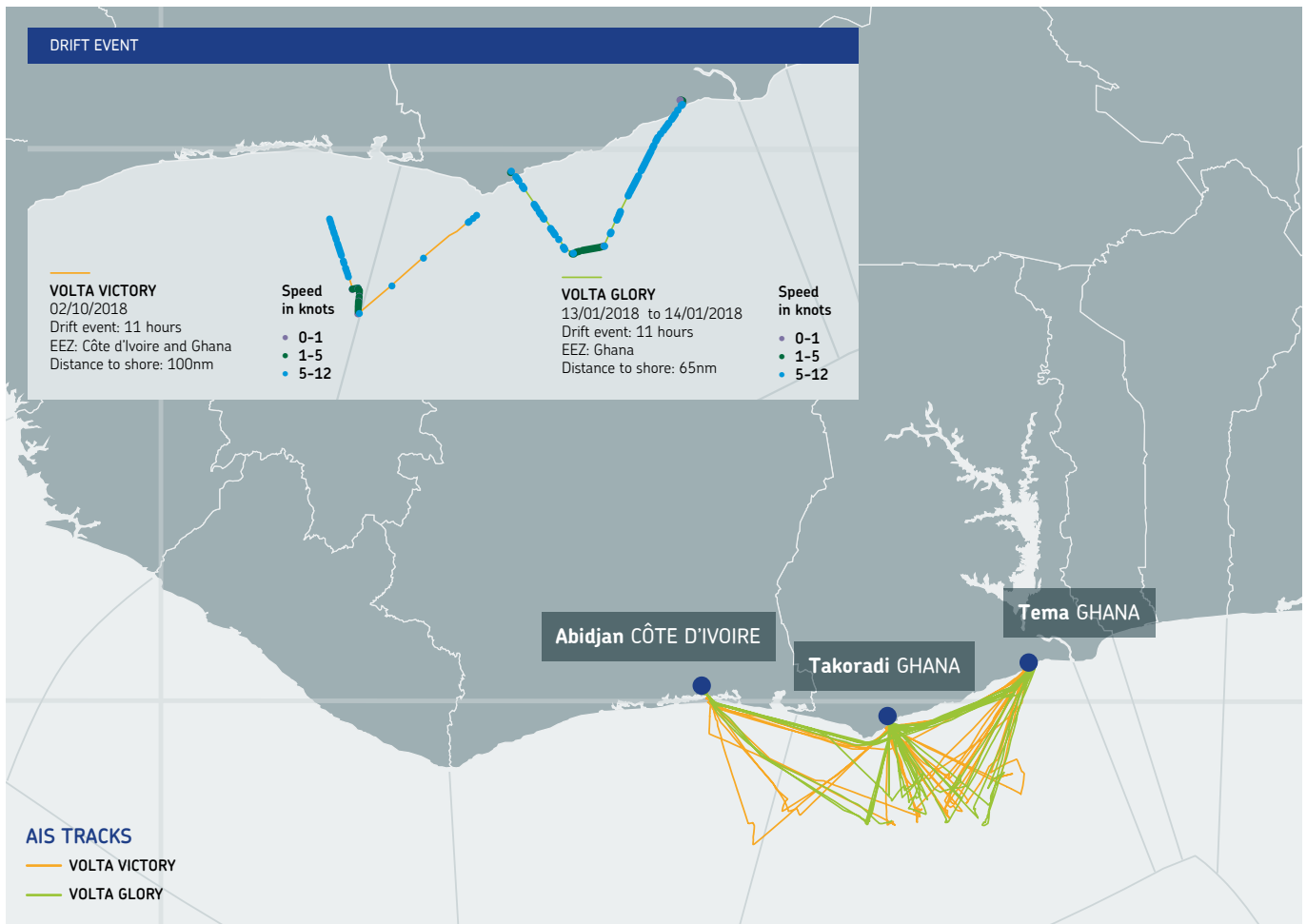
Compliance
Loitering
Drift events

In 2018 Ghana-flagged reefers VOLTA GLORY and VOLTA VICTORY were part of the fleet operated by the company PANOFI CO. LTD.; a joint-venture established in Ghana in 2002 by Korean group SILLA CO. LTD. The company currently operates six tuna purse seiners operating in the waters of Benin, Côte d'Ivoire, Ghana, Liberia, Sierra Leone, and in the high seas. The fleet lands fish in Tema and Abidjan or tranship their catch to the two affiliated reefers. In port (at anchorage) transhipments are reported to regularly take place in Tema and Takoradi, between the PANOFI seiners and the two reefers.

The VOLTA GLORY and VOLTA VICTORY regularly landed tuna in Tema where the catch is sorted, transferred to cold storage facilities and sold to local processing plants, including the cannery operated by COSMO SEAFOOD CO. LTD., another affiliate of the SILLA group established in 2011.

The reefers also landed catch in Abidjan when prices paid by the canning sector there are higher than prices in Ghana. As Côte d'Ivoire is a neighbouring country, shipping costs are kept low. Transhipment operations between the PANOFI seiners and the two reefers are also reported to take place in the Abidjan port area.

The two reefers are also known for landing non-target species as well as small size or low-quality tuna, called *faux poisson* or *faux thon*, to be sold on the local market in Abidjan.



Vessel name	VOLTA GLORY	VOLTA VICTORY
IMO number	8323604	9140102
Flag in 2018	Ghana	Ghana
Year of build	1983	1996
GT	2,829	2,716
Insulated capacity	3,957	4,276
TEU	0	0

Compliance history

In 2012 a potential illegal at-sea transhipment was identified to have taken place in the Liberia EEZ between Ghana-flagged purse seiner PANOFI VOLUNTEER and VOLTA VICTORY. ICCAT regulations prohibit purse seiners from transhipping at sea and transhipment at sea was banned in Liberia at the time of the incident.

This incident triggered further analysis of the movements of the VOLTA VICTORY and its sister ship the VOLTA GLORY, which indicated that the reefers conducted frequent at-sea transhipments in 2011 and 2012 in the Liberia EEZ and in large parts of the Central Atlantic. Liberia issued fines for the two reefers, and the company PANOFI was later subject to investigations in Ghana.

Ongoing monitoring suggests a change of operating pattern with fewer voyages to high seas fishing grounds and more port-to-port operations between Tema, Takoradi and Abidjan. The two reefers often take indirect routes between port calls, with frequent drift behaviour suggesting that operations still take place at sea, mainly inside the Ghana EEZ. In 2018, 15 of these 'drift events' were identified for VOLTA GLORY, and 16 were identified for VOLTA VICTORY. Some may correspond with legitimate operations, such as authorised bunkering operations or transfer of supplies to fishing vessels, others may indicate transhipment operations.



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CASE STUDY

MENG XIN YU YUN 369

Shuttle reefer linking Sierra Leone and Ghana



At sea
Fishing vessel to reefer
Fishing vessel to small
transport vessel



Small pelagics
Demersal



Loitering
AIS gaps
Compliance
Flagging issues

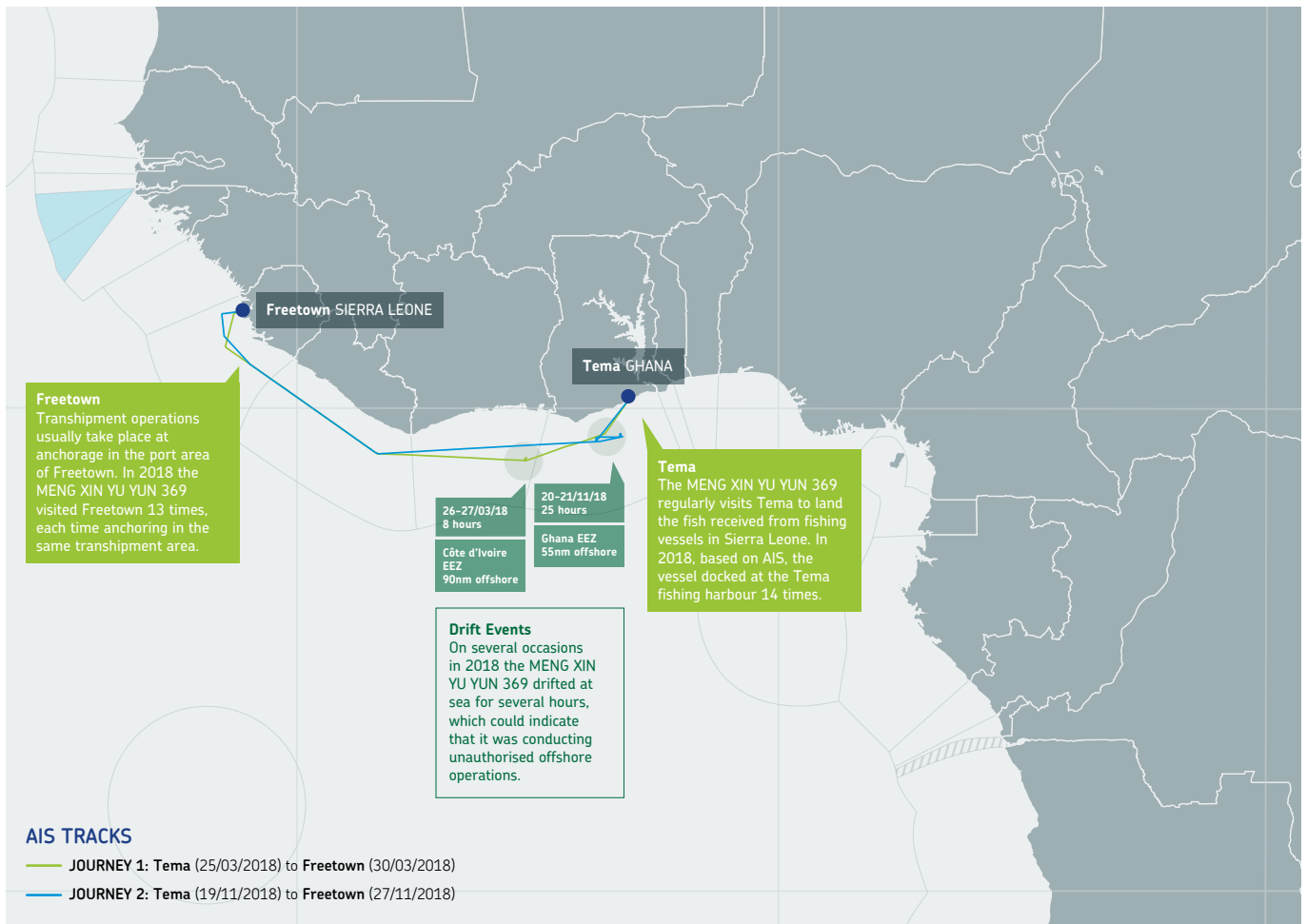
The reefer MENG XIN YU YUN 369 supports the fishing fleet owned by DALIAN MENGXIN YUANYANG FISHERY CO., LTD.⁴, a Chinese state-owned enterprise authorised in 2008 by China to operate as a distant water fishing company. The fleet is comprised of about 30 trawlers built around 2012, with about two thirds operating in Ghana and the remaining vessels operating in Sierra Leone.

Transshipment operations usually take place at anchorage in the port area of Freetown, Sierra Leone. They involve different fishing vessels coming alongside the reefer, simultaneously or sequentially to tranship catch. At the same time, the vessels can also transfer frozen fish cartons to canoes. Although in-port transshipment is allowed in Sierra Leone, these operations have limited oversight, raising the risk of illegally caught fish being mixed, or whitewashed, with legally caught fish.

Under Ghanaian law all vessels must be registered and flagged to Ghana and beneficially owned by Ghanaian citizens to be licensed to fish there. Nine local front companies have been established as the registered owners of the MENG XIN fleet, although the vessels are still beneficially owned by DALIAN MENGXIN YUANYANG FISHERY CO LTD. This set up enables the fishing vessels to fly the Ghana flag and fish in Ghanaian waters.

In Sierra Leone, the vessels are allowed to operate under the Chinese flag through a local company. There are indications that the whole fleet, including those flagged in Ghana, remain part of China's registered distant water fleet, according to China's 2018 official offshore fishing vessel overseas inspection list, which allows them to potentially benefit from State subsidies and other advantages.

⁴ Also referred to as DALIAN MENGXING OCEAN FISHERIES CO., LTD depending on English translations



Vessel name	MING XIN YU YUN 369
IMO number	–
Flag in 2018	China
Year of build	2015
GT	987
Insulated capacity	Not listed
TEU	Not listed

Compliance history of the fishing fleet

A number of vessels in the MING XIN fleet have a history of non-compliance in both Ghana and Sierra Leone. Common infractions observed and/or sanctioned since their arrival in the region in 2012 include unauthorised transshipment at-sea (from trawler to canoe – a practice known as ‘saiko’ in Ghana – and between trawlers), use of illegal gear, fishing in prohibited

areas (no-trawl zones, inshore exclusion zone reserved for small-scale fishing, etc.), misreporting of fishing activity and dumping of juvenile fish⁵. In 2019 a Ghanaian fishing observer went missing while on board the MING XIN 15 – the investigation is still ongoing.

⁵ Environmental Justice Foundation (EJF) (2018) China’s hidden fleet in West Africa: a spotlight on illegal practices within Ghana’s industrial trawl sector



© Pierre Gleizes/Greenpeace

CASE STUDY

GABU REEFER, SALY REEFER and SILVER ICE

Reefers specialized in the transport of small pelagics



**At-sea
Fishing vessel to reefer**



Small pelagics



**Loitering
Encounters
Compliance
Flagging issues**

The reefers SILVER ICE, GABU REEFER and SALY REEFER have been operating in West Africa since 2009 under the ownership of FISHING & CARGO SERVICES S.A., a company incorporated in Panama and believed to be a shell company established to hide beneficial ownership⁶. The vessels are operated and managed by a Spanish company based in Las Palmas de Gran Canaria: WEST COAST FROZEN FISH S.A.

The fishing fleet serviced by the three reefers is the 'FLIPPER' fleet, currently consisting of three Soviet-built pelagic trawlers owned by other front companies established in Panama and operated from Las Palmas de Gran Canaria through the company SEA GROUP SL, which is also reportedly linked to the reefers⁷. The reefers specialise in the transport of frozen small pelagic fish transhipped from the fishing vessels which have been operating in Guinea-Bissau. The fish is destined for the West African market. AIS analysis suggests that until 2017 the three reefers' operations relied largely on at-sea

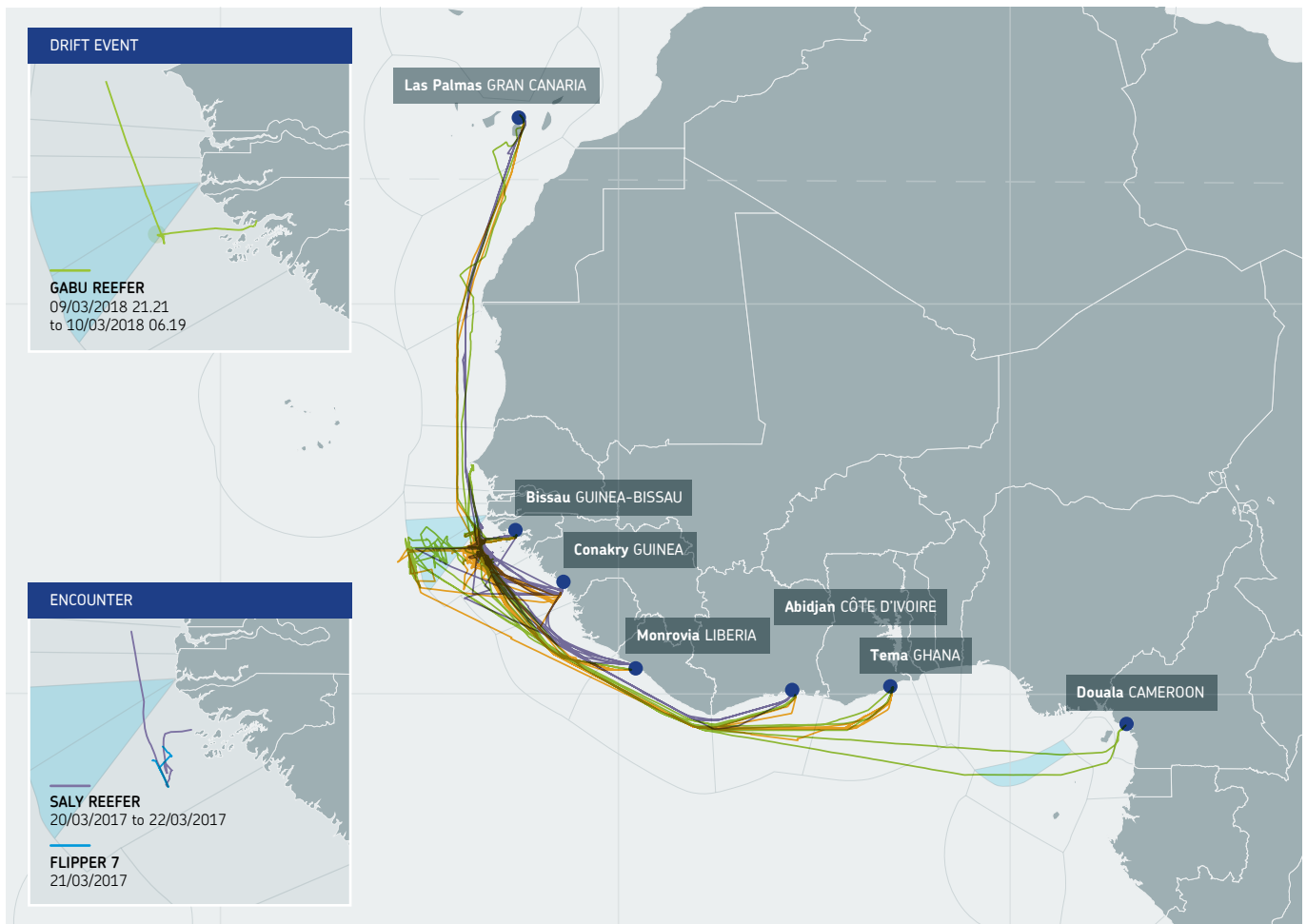
transhipments taking place regularly in the Guinea-Bissau EEZ, including in the Joint Maritime Zone with Senegal where the FLIPPER trawlers regularly operate.

The reefers dock at the port of Bissau, for example in 2018 each vessel docked three times, to land a portion of the trawlers' catch, as per their licence requirements. That catch is sold on the local market by the company AFRIPECHE LDA, the local agent of the FLIPPER vessels. Landings in Bissau are believed to be marginal, most of the fish goes to the FCWC region, with the main ports visited there being Monrovia, Abidjan and Tema.

The reefer owners have systematically flagged their vessels into high-risk registers including Comoros, a country that was issued a red card by the European Union (EU) for operating an open fishing vessel register without having the ability to properly monitor its fleet. All three reefers reflagged to Moldova between 2018 and 2019, also considered a high-risk flag State.

⁶ TMT and C4ADS (2020), Spotlight on: the exploitation of company structures by illegal fishing operators. <https://www.tm-tracking.org/post/illegal-fishing-operators-exploit-company-structures-to-cover-up-illegal-operations>

⁷ C4ADS (2019), Strings attached – Exploring the onshore networks behind Illegal, Unreported, & Unregulated fishing. Retrieved from <https://static1.squarespace.com/static/566ef8b4d8af107232d5358a/t/5d7022301845f300016ee532/1567629912450/Strings+Attached.pdf>



Vessel name	GABU REEFER	SALY REEFER	SILVER ICE
IMO number	8300949	7813925	7819759
Flag in 2018	Comoros / Moldova	Comoros	Comoros / Moldova
Year of build	1983	1979	1979
GT	2,028	2,009	1,753
Insulated capacity	3,620	2,253	2,570
TEU	0	0	12
Compliance	2014 – Fined for attempting to land fish in Liberia without the correct authorisation.	2017 – Illegally transhipped with factory trawlers from the FLIPPER fleet in the Guinea-Bissau EEZ.	2014 – Fined for attempting to land fish in Liberia without the correct authorisation.

Compliance event

In March 2017 SALY REEFER was detained and arrested by Guinea-Bissau authorities, together with fishing vessels FLIPPER 3, FLIPPER 4 and FLIPPER 5, for conducting at-sea transhipments – a practice that had been banned by Guinea-Bissau in 2015.

The arrest was supported by the NGO Greenpeace and led to further investigations into the fishing vessels, which were also suspected of other infractions including the use of prohibited gear and the non-payment of previous fines.

Authorities in Guinea-Bissau have responded to the SALY REEFER arrest by stepping up their enforcement of the at-sea transhipment ban, making it mandatory for all transhipment operations to take place at the anchorage located in the mouth of the river Geba, in the Bissau port area. Increased visits to the anchorage area by the FLIPPER vessels, now flagged to Guinea-Bissau, suggests transhipment is now taking place in the permitted area. However, at-sea drifting behaviour by the reefers has continued to be observed.



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CASE STUDY

GREEN AUSTEVOLL and GREEN MALOY

'Triangular trade' reefers



**At sea
In port
Fishing vessel to reefer**



**Small pelagics
Tuna**



**AIS gaps
Loitering**

GREEN AUSTEVOLL and GREEN MALOY are involved in a 'triangular trade', whereby fish caught in Europe is brought to West Africa, fish caught in West or Southern Africa is traded regionally, and tuna from West Africa is exported to hubs outside of the continent, from where it will eventually be exported to Europe and other markets as a canned product.

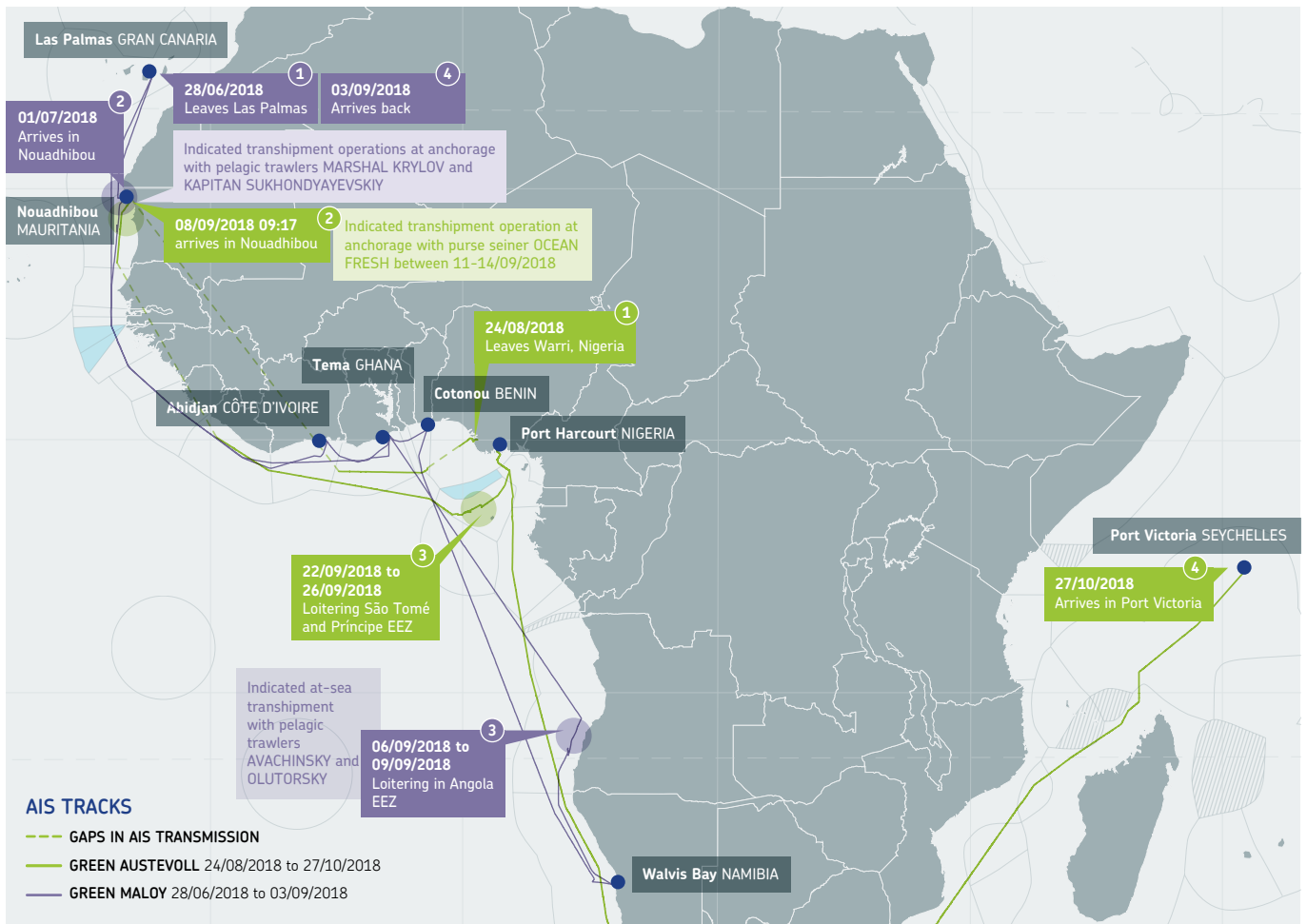
Fish is primarily loaded in Northern Europe at ports in the Faroe Islands and the Netherlands, which are known loading points for blue whiting, herring and mackerel. Fish is also loaded in Mauritania during transshipment operations off Nouadhibou and in Angola through at-sea transshipment operations.

AIS analysis shows that, in addition to the Atlantic trade in small pelagics, both vessels are also involved in transport of tuna caught in the FCWC region and adjacent high seas areas.

This includes catch from purse seiners, which is transhipped in port in Abidjan, Côte d'Ivoire. This catch is transported to international processing hubs, such as Port Victoria, Seychelles and Manta, Ecuador.

GREEN AUSTEVOLL and GREEN MALOY are flagged to Bahamas and owned by Norwegian company GREEN SHIPPING AS, a subsidiary of the GREEN REEFERS AS group, which specializes in the transport of chilled and frozen products. All ship-owning and management companies of the GREEN REEFERS group are owned by CAIANO AS.

The two reefers are operated by GREEN SEA CHARTERING BVBA (GSC), a Belgian company established as a shipping pool by GREEN REEFERS and the SEATRADE group – the largest operator of refrigerated cargo ships in the world.



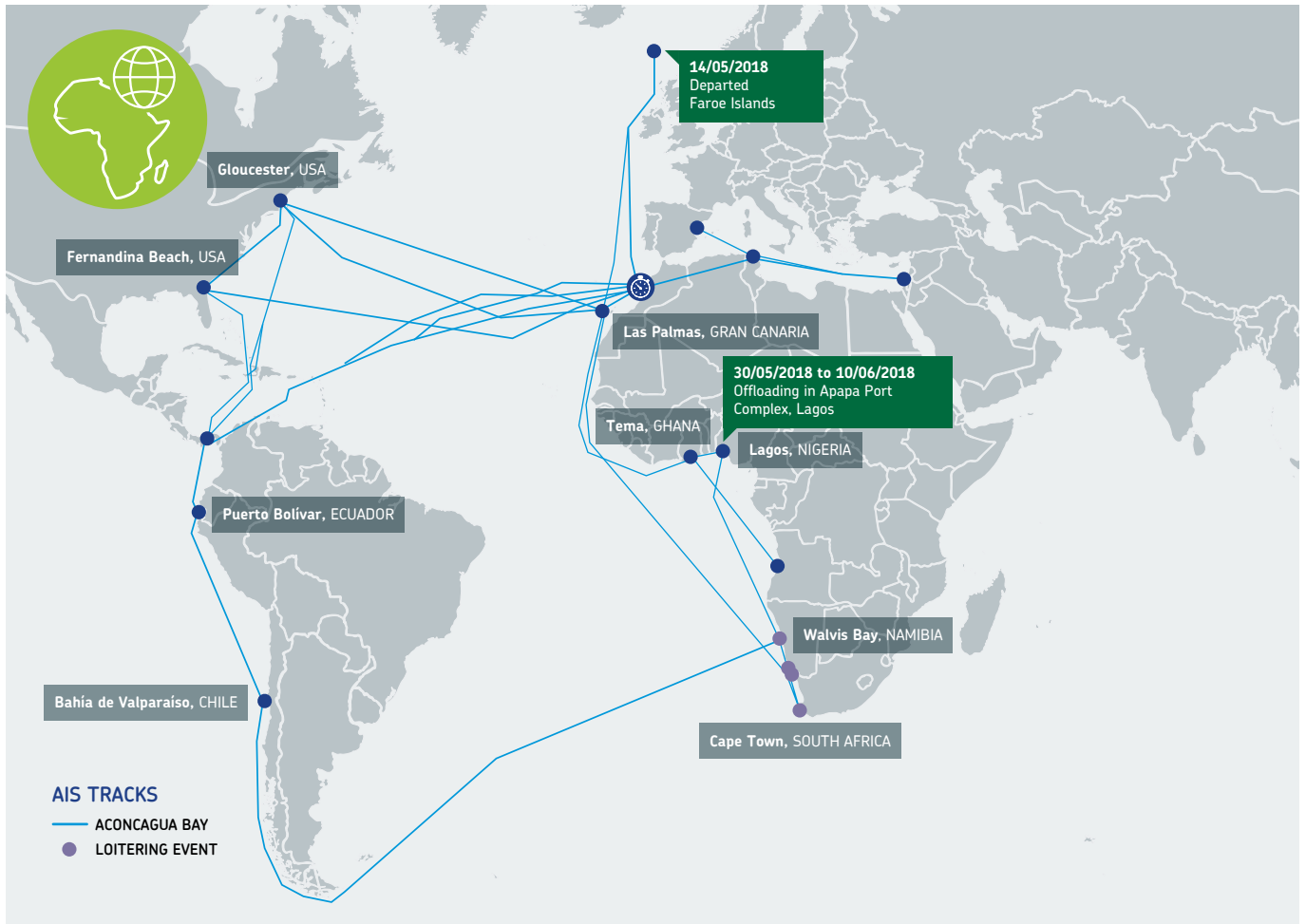
Vessel name	GREEN AUSTEVOLL	GREEN MALOY
IMO number	8819299	8804579
Flag in 2018	Bahamas	Bahamas
Year of build	1991	1990
GT	5,084	5,084
Insulated capacity	7,521	7,525
TEU	142	142

Risk factors

The journey details presented here are not considered to be indicative of illegal activity, but show the complexity of vessel movements and the need to pay attention to factors such as time spent at anchorages and in port, loitering behaviour at sea, indicated encounters and gaps in AIS transmission when analysing a port entry request and the vessel documents received with it.

Transshipment operations at-sea in Angola are not limited to GREEN SEA CHARTERING-operated reefers and are considered high-risk by the WATF. Those operations are banned in the absence of a fishery observer, however according to a recent assessment the number of monitored transshipments is low, raising the possibility that some catch bound for West African ports may have been transhipped illegally⁸. The WATF has also documented cases where allegedly authorised transshipment operations in Angolan waters were not supported by valid export authorisations.

⁸ Pramod, G. (2017) Angola – Country Report 8 pages, In: Policing the Open Seas: Global Assessment of Fisheries Monitoring Control and Surveillance in 84 countries, IJU Risk Intelligence – Policy Report No. 1, Canada



CASE STUDY

ACONCAGUA BAY

Globally trading reefer offloading in Nigeria

Vessel name	ACONCAGUA BAY
IMO number	9019652
Flag in 2018	Liberia
Year of build	1992
GT	11,581
Insulated capacity	14,508
TEU	20

ACONCAGUA BAY operates as part of the SEATRADE group, a leading player in the conventional reefer market. SEATRADE runs a fleet of 51 conventional reefer ships, including those employed by the GREENSEA pool or chartered out long term. ACONCAGUA BAY is one of the four standalone SEATRADE vessels: all are Liberian flagged and are some of the largest in the ICCAT registered carrier fleet.

In 2018 ACONCAGUA BAY was involved in transporting fish between Europe, West Africa, South Africa, South America and North America. This included the supply of blue whiting from the Faroe Islands to the container terminal at the Apapa Port Complex in Lagos, Nigeria. This is Nigeria's largest and busiest port complex. Management of the port is contracted out to private operators with Nigeria Port Authority acting as the landlord and regulator.





© Nicole Schafer/Sea Shepherd

CASE STUDY

HAI FENG fleet

Reefer to reefer encounters



In port
At sea (suspected)
Fishing vessel to reefer
Reefer to reefer (suspected)



Demersal
Small pelagics



Compliance
Loitering
Encounters
AIS gaps

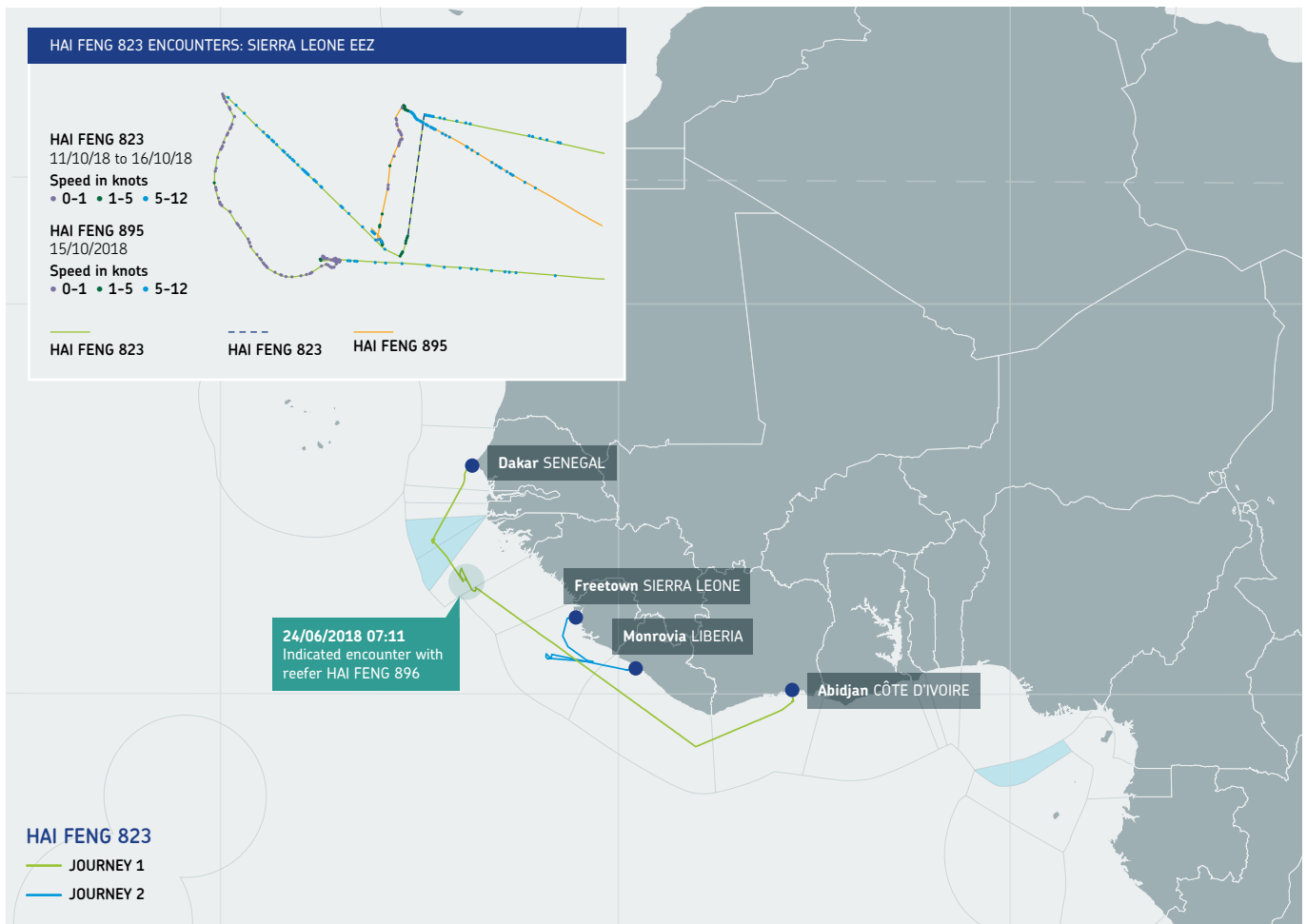
There were 20 encounters detected between reefers and other cargo vessels during 2018 that are of interest to the FCWC region. Many of these reefers have visited FCWC ports while others are servicing vessels linked to the FCWC region. Ten of these were encounters between reefer vessels in the HAI FENG fleet. These ten encounters occurred in the EEZs of Guinea, Guinea-Bissau, Senegal and Sierra Leone and involved HAI FENG 823 and 895 (both of which made calls into FCWC ports) and HAI FENG 896, which although it didn't operate in FCWC EEZs during 2018, but operated in EEZs further north, has connections to the FCWC region.

The HAI FENG 823, HAI FENG 829 and HAI FENG 896 are owned and operated by ZHONGYU GLOBAL SEAFOOD CORP. (ZGSC) a company controlled by the State-owned enterprise CNFC (China National Fisheries Corporation). HAI FENG 896 is operated by a Panamanian shell company, YUN FENG S.A., under the same beneficial ownership.

The HAI FENG reefers regularly land fish in the FCWC region, mainly in the ports of Monrovia (Liberia), Abidjan (Côte d'Ivoire) and Tema (Ghana). On arrival in FCWC ports, HAI FENG reefers are therefore likely to be carrying a combination of fish products loaded or transhipped in multiple ports and at-sea locations across several jurisdictions – which presents a challenge for MCS and due diligence verifications.

Several HAI FENG reefers regularly visit the anchorage area in Bissau port, Guinea-Bissau, where transhipment operations are reported to take place with ZGSC's fishing vessels. They also frequently visit the in-port transhipment area of Freetown, Sierra Leone, where several of their historically associated fishing vessels currently operate, including vessels of the CNFC fleet with which they were previously accused of transhipping illegally in Guinea.

Some also visit the anchorage of Nouadhibou, Mauritania, where CNFC operates a fishing fleet and controls a fish processing company, MAURITANO-CHINOISE DE PÊCHE (MCP). They also regularly visit the port of Dakar to load fish caught by affiliated fleets (such as the CNFC joint venture SENEGAL PECHE).



Vessel name	HAI FENG 823	HAI FENG 895	HAI FENG 896
IMO number	8863496	8814237	8420751
Flag in 2018	China	Panama	St. Kitts and Nevis
Year of build	1992	1989	1985
GT	1,328	3,503	4361
Insulated capacity	1,530	4,248	Not on IHS
TEU	0	0	Not known

Compliance history

The HAI FENG fleet has a history of illegal operations and transhipment in West Africa. Most recently, HAI FENG 823 was arrested by Liberia in December 2018 for lying to a Liberian Coastguard Officer, presenting falsified documents and conspiring to violate the tax and customs laws of Liberia. The vessel was offloading a cargo of fish that had been transhipped at sea in Sierra Leone and presented false documentation that understated the quantity of fish on board. In addition, it was reported that the true quantity of catch on board exceeded that permitted on the Sierra Leone export permit⁹.

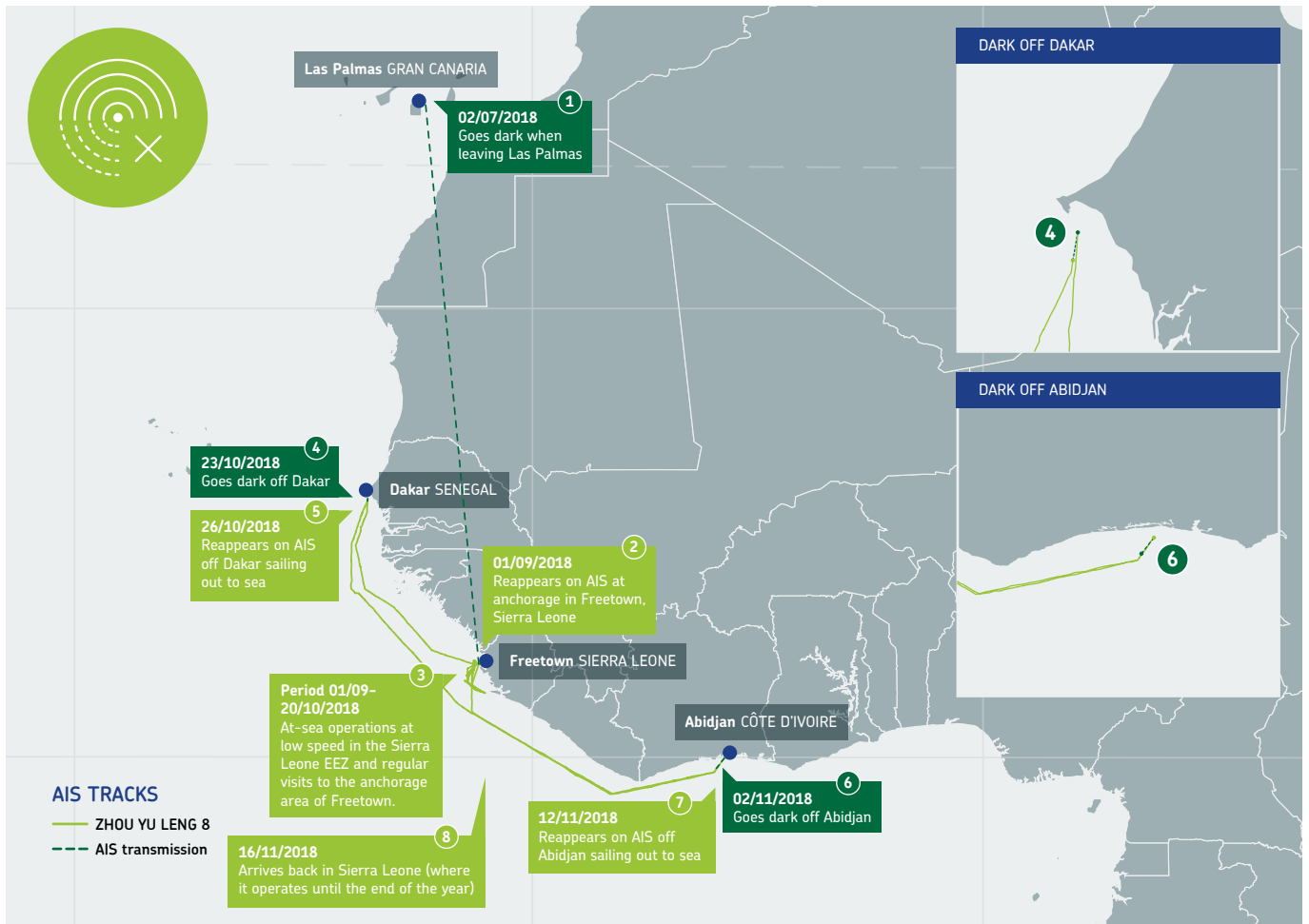
HAI FENG 823, 829, 830 and 896 have a documented history of offences including illegal transhipment in Guinean waters and bypassing customs authorities whilst offloading catch in Spain (2006)¹⁰.

The HAI FENG reefers were directly owned and operated by CNFC and were servicing the group's fishing fleet in West Africa. Historically several unauthorised at-sea transhipment operations between HAI FENG reefers and CNFC fishing vessels have been documented, particularly in Guinea waters¹¹.

⁹ <https://www.seashepherdglobal.org/latest-news/arrest-liberia-haifeng>

¹⁰EJF (2007) Pirate Fish on Your Plate: Tracking illegally-caught fish from West Africa into the European market

¹¹EJF (2009) Dirty Fish – How EU Hygiene Standards facilitates illegal fishing in West Africa



CASE STUDY

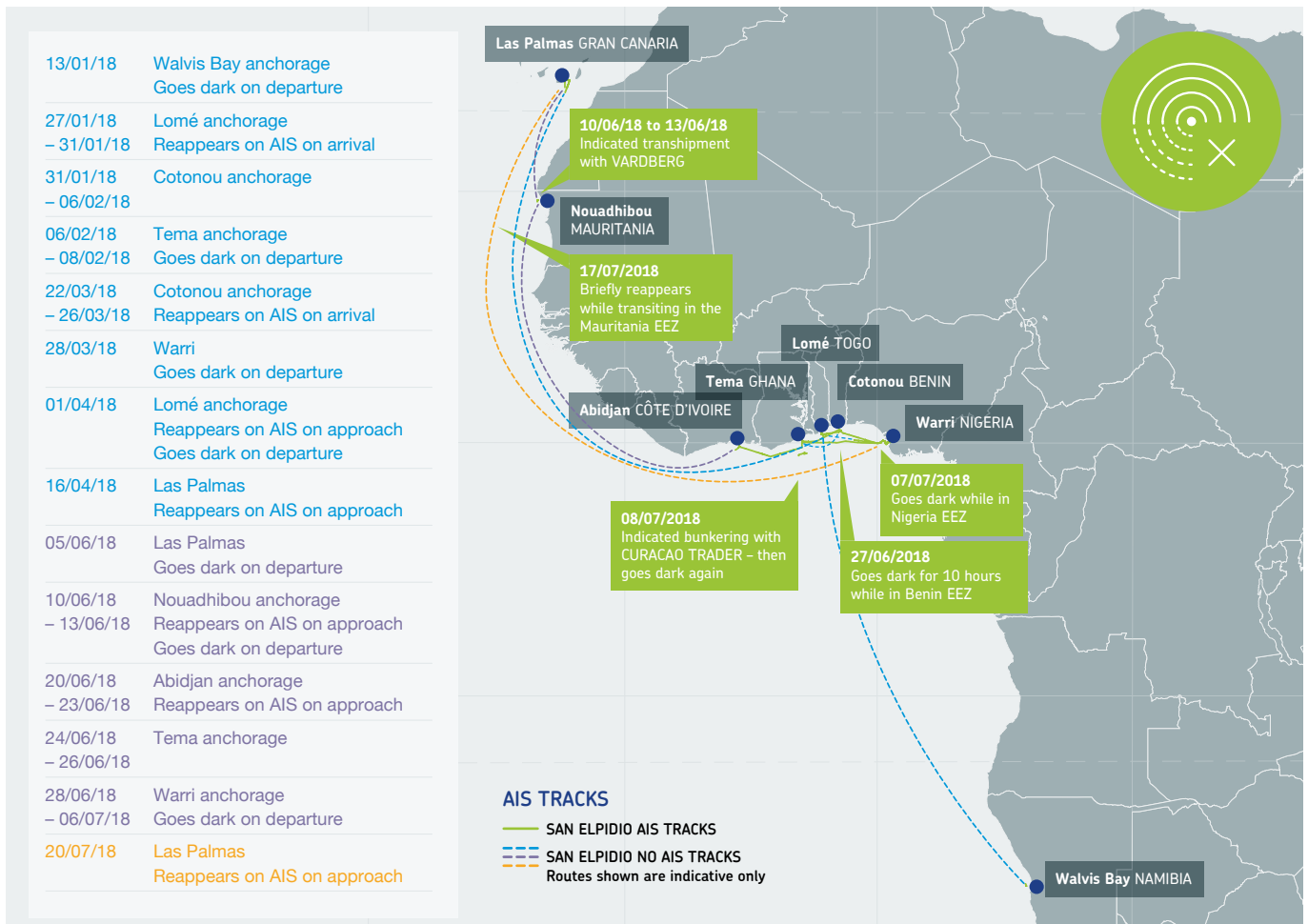
ZHOU YU LENG 8

‘Going dark’ when approaching ports

Vessel name	ZHOU YU LENG 8
IMO number	8887997
Flag in 2018	China
Year of build	1995
GT	943
Insulated capacity	1,285
TEU	0

The reefer ZHOU YU LENG 8 is an example of a vessel that does not appear on AIS for extended periods of time including while operating in the FCWC region and in source fishery areas to the north. During 2018, no AIS transmissions were received from this vessel between January and June, although port records from both Dakar and Abidjan indicate that it was active in the FCWC region and in Senegal during this time. It transmitted briefly from Las Palmas, Gran Canaria in July and then disappeared from AIS again until September – during this period its operations are not known. From September to December, ZHOU YU LENG 8 transmitted more consistently on AIS but had a significant number of shorter AIS gaps.

This reefer appeared to transmit on AIS whilst operating at sea but disappeared from AIS when approaching port in Dakar or Abidjan and did not reappear until after the port visit. Switching AIS off to enter port is particularly risky behaviour from a maritime safety perspective – as AIS is important for reducing collision risk in busy areas, such as the approach to ports. The reason for these gaps in AIS is unclear, but they could indicate attempts to conceal operations in coastal areas.



CASE STUDY

SAN ELPIDIO

AIS turn offs between ports

Vessel name	SAN ELPIDIO
IMO number	8814902
Flag in 2018	Panama
Year of build	1989
GT	4,579
Insulated capacity	5,580
TEU	0

The SAN ELPIDIO is a reefer that almost always systematically switches off its AIS unit between port calls. SAN ELPIDIO operated between Walvis Bay, Namibia in the south to Las Palmas, Gran Canaria in the north during 2018. During these operations, the vessel transited the FCWC area and entered port in Togo, Benin, Ghana and Côte d'Ivoire. During this time, it was responsible for one of the longest recorded AIS gaps amongst the reefers monitored in 2018, the gap started in the EEZ of Ghana on 8 February 2018 and ended in Benin on 22 March 2018, a total of 1,005 hours.

The AIS gaps, usually made while transiting or operating at sea may occur for a number of different reasons including to cover-up legal and/or illegal activities such as unauthorised transshipment.



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CASE STUDY

FRIO CHIKUMA

Potential import risk resulting from high risk encounter



At sea
Fishing vessel to reefer
In port



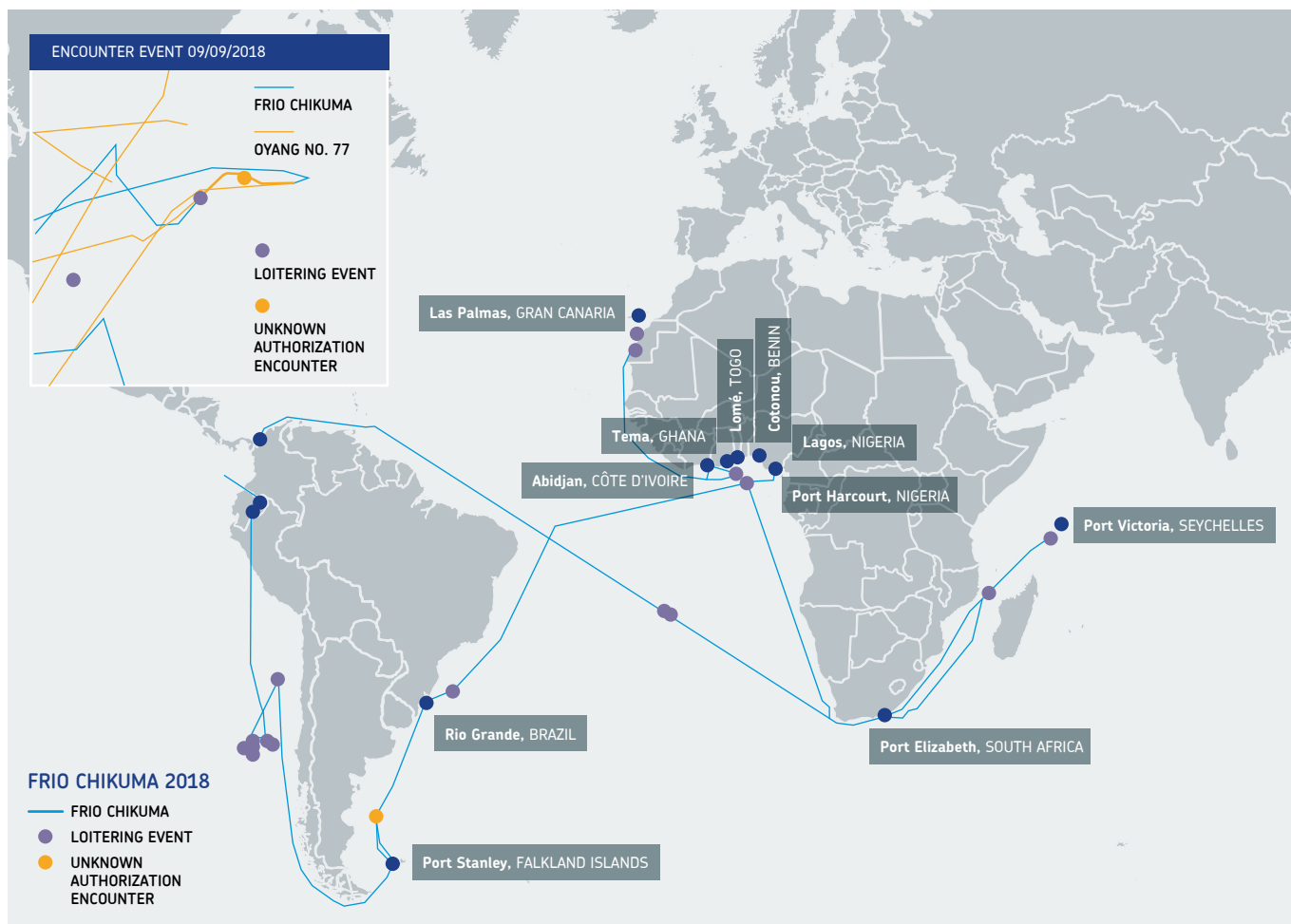
Small pelagics



Loitering
Encounters
Compliance
Flagging issues

During 2018 the trawler OYANG NO. 77 and factory vessel OYANG NO.75, both owned by the South Korean SAJO OYANG CORPORATION, operated in the high seas of the Southwest Atlantic. AIS shows evidence of encounters between these two vessels and four reefers. The reefers involved were AVUNDA REEFER, PAMYAT ILICHA, FRIO CHIKUMA (one encounter each) and FRIO NAGATO (four encounters).

Whilst the majority of reefers that operated in the Southwest Atlantic did not subsequently travel to the FCWC region, the FRIO CHIKUMA did travel directly from a period of operations at sea (with port calls to the Falkland Islands), to Montevideo and from there on to the FCWC region with port calls to Lagos and Port Harcourt. After the port visits to Nigeria, the reefer travelled to Las Palmas and Mauritania. This route raises the possibility that some catch from the south west Atlantic or Montevideo, could be imported in to the FCWC region.



Vessel name	FRIO CHIKUMA	OYANG NO. 77	OYANG NO. 75
Vessel type	Reefer	Fishing vessel	Factory vessel
IMO number	9184536	7416612	8801175
Flag in 2018	Panama	South Korea	South Korea
Year of build	1988	1974	1989
GT	7,367	1,072	1,761
Insulated capacity	11,441	917	1,744
TEU	12	N/A	N/A

Compliance history

Both OYANG NO. 75 and OYANG NO. 77 have a history of illegal fishing and labour abuse, as do several other vessels in the SAJO OYANG fleet. Both were arrested in New Zealand in 2012 for offences including illegal dumping of quota species and misreporting of catch¹². In 2011 the Indonesian crew of OYANG NO. 75 fled the vessel, citing physical, psychological and sexual abuse by officers, as well as non-payment of wages¹³. Both vessels are forfeit to New Zealand but departed with bonds paid and have since been operating in the South Atlantic¹⁴.

More recently, the OYANG NO. 77 was fined 600,000 USD for illegal fishing in the Argentina EEZ. The vessel was reportedly observed by a patrol vessel operating in the Argentinian EEZ with its nets deployed. The vessel was accompanied back to port and found to have 127 tonnes of catch on board and was also found to have fished using illegal small-mesh nets.

¹²<https://www.theguardian.com/world/2019/sep/12/ship-of-horrors-deep-sea-fishing-oyang-70-new-zealand>

¹³<http://docs.business.auckland.ac.nz/Doc/11-01-Not-in-New-Zealand-waters-surely-NZAI-Working-Paper-Sept-2011.pdf>

¹⁴<https://www.stuff.co.nz/business/industries/64344741/wanted-south-korean-boat-found-in-uruguay-port>



© Stop Illegal Fishing

CASE STUDY

VERACRUZ

Flag hopping



At sea
In port
Fishing vessel to reefer



Small pelagics



AIS gaps
Loitering
Flagging issues

An example of a vessel that changed flag under its 2018 ownership, engaged in flag hopping and has also used high risk flags is the VERACRUZ.

This reefer is specialised in the transport of fish from Angola and Namibia to central and West Africa. It has been under the ownership of Atlantico Ltd., a company registered in Belize, since 2016. The vessel's operator since 2016 is listed as Traleriu Laivynas, UAB – a company registered in Lithuania. In July 2016, when the vessel's ownership was recorded as

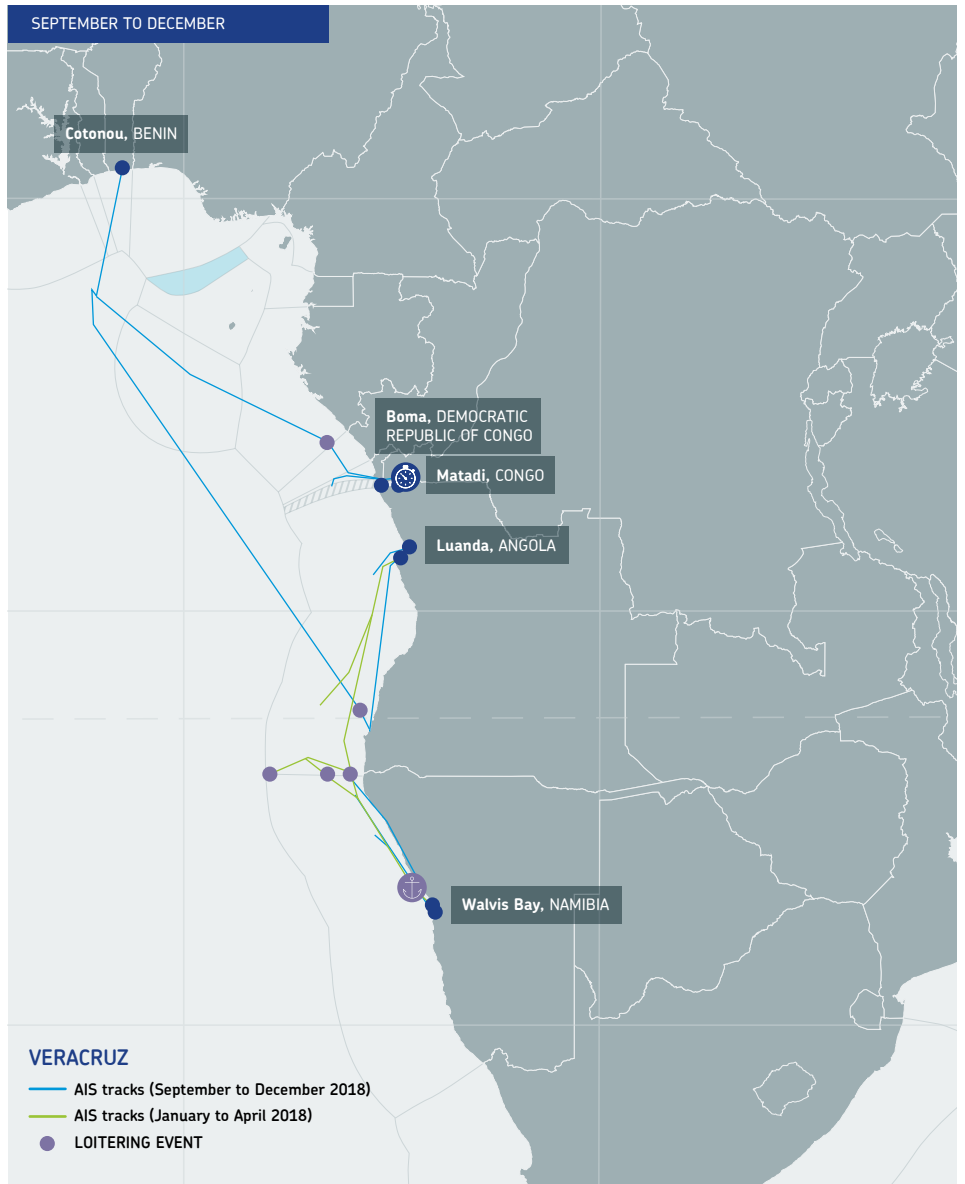
transferred to Atlantico Ltd., it was reflagged from Comoros to Belize. However, it remained under the Belize flag for a period of less than a year and was reportedly reflagged to Comoros in December 2016. It then reflagged to Moldova in September 2018. Both Comoros and Moldova are considered to be high risk flag States due to low levels of oversight and control of vessels in their fleets. Moldova was used as a flag by four reefers that operated in the FCWC region in 2018.

Operating under the flag of Comoros

05/01/18 – 09/01/18	Luanda
09/01/18 – 09/02/18	Active in the EEZs of Angola and Namibia

Loitering activity

09/02/18 – 21/02/18	Walvis Bay
08/03/18 – 11/03/18	Cotonou
12/03/18 – 13/03/18	Lomé
19/03/18 – 20/03/18	Boma
20/03/18 – 25/03/18	Matadi
04/04/18 – 12/04/18	Loitering in the Namibia and Angola EEZs
13/04/18 – 16/03/18	Walvis Bay
04/2018	Reflagged to St Kitts and St Nevis
04/2018 – 09/2018	No AIS data available (no known MMSI)
09/2018	Reflagged to Moldova
15/09/2018 – 21/09/18	Matadi
26/09/18 – 30/09/18	Cotonou
AIS turn off before entering Benin EEZ	
Reappears on AIS on approach	
Goes dark on departure	
09/10/18 – 18/10/18	Walvis Bay
Reappears on AIS on approach	
Goes dark on departure	
12/11/18 – 15/11/18	Walvis Bay
Reappears on AIS on approach	
Goes dark on departure	
26/11/18 – 27/11/18	Boma
27/11/18 – 05/12/18	Matadi
10/12/18 – 15/12/18	Cotonou
AIS turn off before entering Benin EEZ	
Goes dark on departure	
27/12/18 – 31/12/18	Luanda
Reappears on AIS on approach	



Vessel name	VERACRUZ
IMO number	7508300
Flag in 2018	Comoros, St Kitts & Nevis, Moldova
Year of build	1977
GT	3,755
Insulated capacity	5,693
TEU	13

In 2018 the VERACRUZ was operational in the EEZs of Angola and Namibia and made regular port visits in the FCWC region at the ports of Cotonou, Benin and Lomé, Togo.

It can be assumed that VERACRUZ undertook at-sea transshipment operations, and the vessel tracks indicate loitering activity in transshipment hotspots. As VERACRUZ did not transmit on AIS between port visits for the majority of trips it is likely that the flag hopping was used to avoid the monitoring and oversight by the flag State on VMS and identifying transshipment activity.

The VERACRUZ was broken up in 2020 and no longer operates.

2.3 TRANSHIPMENT AND CONTAINERS

In the last two decades, advances in technology have increased the availability and use of refrigerated containers for transporting temperature sensitive products by sea.

'Reefer containers' look almost identical to regular containers but function as large fridges that can control the temperature of their cargo. This makes them ideal for transporting goods such as fish.

Reefer vessels and container vessels are not exclusive. Most reefers have the capacity to carry reefer containers (on the weatherdeck or hatchcovers) and many containerships have refrigerated holds where bulk or palletized goods can be stacked as secondary cargo.

FISHING VESSELS

Offload directly bulk or boxed fish into containers.

CRANES



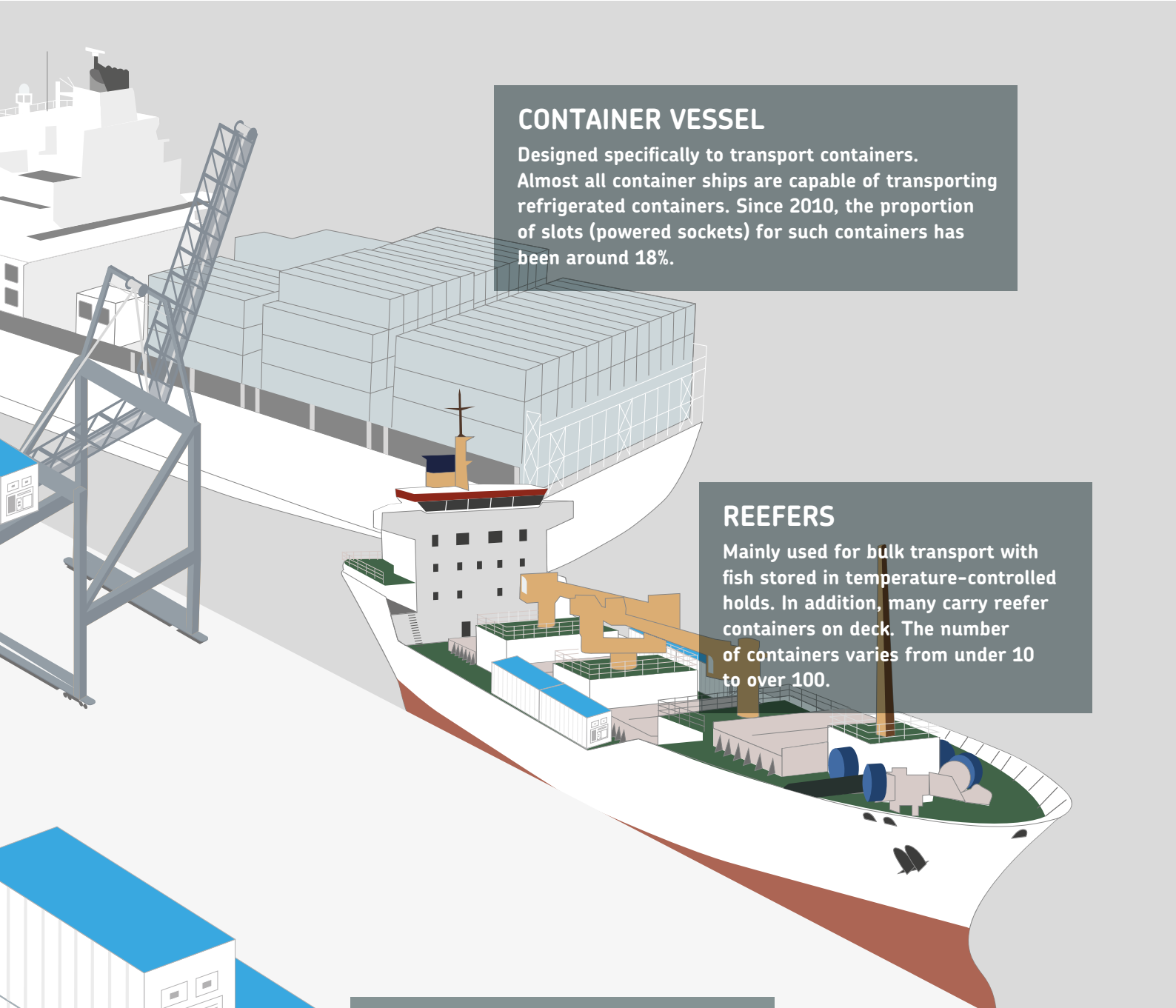
From: **Fishing vessels, reefers**
To: **Container in port**



Tuna
Small pelagics
Large pelagics
Demersal species



Port



CONTAINER VESSEL

Designed specifically to transport containers. Almost all container ships are capable of transporting refrigerated containers. Since 2010, the proportion of slots (powered sockets) for such containers has been around 18%.

REEFERS

Mainly used for bulk transport with fish stored in temperature-controlled holds. In addition, many carry reefer containers on deck. The number of containers varies from under 10 to over 100.

REEFER CONTAINERS

Normally twenty foot long, their standard size makes them easy to stack and operationally cost-effective (intermodal).

Can maintain cargo temperatures of between -65°C and $+40^{\circ}\text{C}$ regardless of the outside environmental conditions.

Require a constant supply of electricity, supplied either by the vessel, truck or terminal generator.



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THE IMPORTANCE OF CONTAINERS

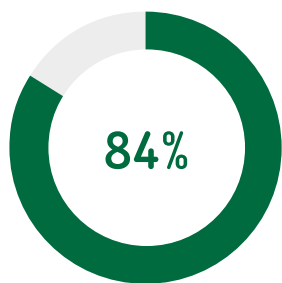
Over the last decade, reefer containers have been successfully competing for trade with reefer ships and have quickly increased their market share. This is in part driven by the shipping industry and the use of fixed routes and schedules with standardised container sizes making port, vessel, and onward transport fast and energy and cost efficient. Reefer ships continue to play a valued and significant role in the fisheries supply chain, offering flexibility and a level of control that containers cannot match.

The growth of container use is in part facilitated by improvements in infrastructure at key ports. In the FCWC region Abidjan, Lagos-Apapa, Port Harcourt, Lomé and Tema are key container ports. This is due to the connectivity of the shipping lines linked to the port, the amount of trade passing through the port, and the size and connectivity of the hinterland to the port.

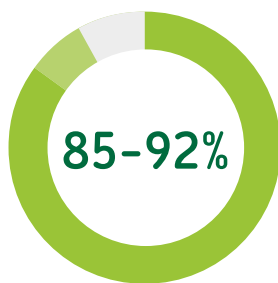
Shortages of containers during the COVID-19 pandemic have reversed the trend to increased levels of containerisation.



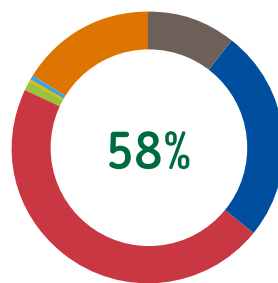
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of fish and fisheries products leaving West Africa, do so in containers carried on ships¹⁵

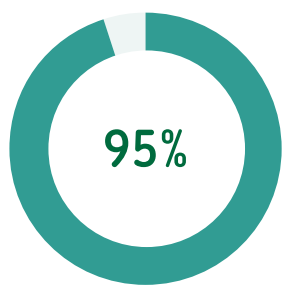


of imported fish enters the EU in a container¹⁶

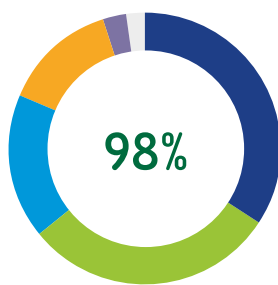


of Nigeria's fish imports come from Europe

- Africa
- Asia
- Europe
- High Seas
- Oceania
- N America
- S America

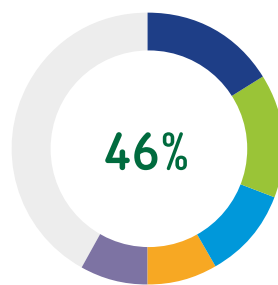


of Nigeria's fish imports arrive by container



of Nigeria's fish imports are small pelagics¹⁷

- Blue Whiting
- Mackerel
- Horse Mackerel
- Herrings
- Sardine
- Other



of Nigeria's fish imports come from five top suppliers, all based in Europe

- J. Marr Seafoods
- Apexpost
- Crystal Frozen Seafood
- Parlevliet
- DanMarin
- Others

¹⁵Overseas Development Institute 2016. Western Africa's missing fish: the impacts of illegal, unreported and unregulated fishing and under-reporting catches by foreign fleets https://cdn.odi.org/media/documents/Western_Africas_missing_fish.pdf

¹⁶EJF, Oceana, Pew & WWF (2017). The EU IUU Regulation Analysis: Implementation of EU seafood import controls

¹⁷Based on 2018 data analysis conducted by the West Africa Task Force

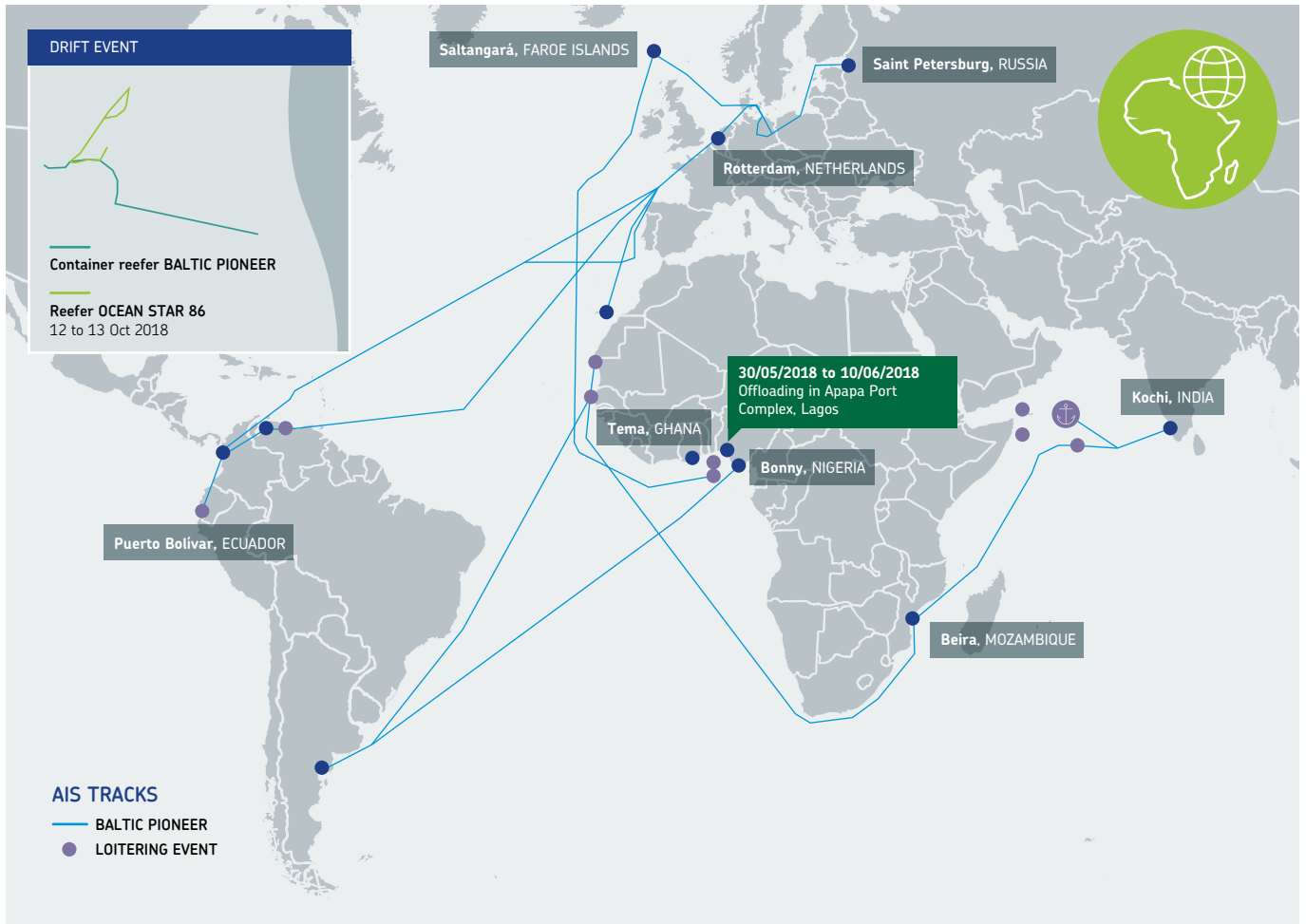


REEFER VERSUS CONTAINER VESSELS

Issue	Reefer vessels	Container vessels
TRANSPORT COSTS	<p>Higher</p> <p>Reefer fuel costs are higher.</p> <p>More actions required along the transport supply chain.</p>	<p>Lower</p> <p>Cost recovery strategies and greater fuel efficiency.</p> <p>Containers are intermodal (e.g. can be loaded directly from vessel to vessel or vessel to truck), which makes transport generally cheaper than conventional reefer transport.</p>
TRANSPORT TIME	<p>Short</p> <p>Direct delivery of fish, from catching vessel to wholesaler/importer.</p> <p>Shorter transit times lead to faster payments and better cash flow.</p>	<p>Long</p> <p>Container vessels operate on fixed schedules and routes, usually with multiple stops and longer transit time. Containers also spend time in hubs when handled from one vessel to another.</p>
FUEL	<p>Higher</p> <p>Reefer fuel costs are higher.</p> <p>IMO regulations, in force from 2020, adopt a global standard of 0.5% sulphur content.</p> <p>Increased costs associated with low sulphur fuel may result in older reefers becoming unviable.</p>	<p>Lower</p> <p>Container ships are typically more fuel efficient than reefers.</p>
TEMPERATURE RISK	<p>Lower</p> <p>Better cooling system with more controlled parameters. No interruption in the cooling process until the vessel reaches destination.</p>	<p>Higher</p> <p>Slower loading and issues with temperature reliability of containers can present risks to the cold chain.</p> <p>Interruptions of the cooling system at the hubs, which can occur several times in a single journey.</p> <p>Improvements to container technology are mitigating cold chain risks.</p>



Issue	Reefer vessels	Container vessels
LOADING EFFICIENCY	<p>Higher</p> <p>Advantages of vessel-to-vessel transshipment: fast and efficient, requiring less manpower and intermediary steps.</p> <p>Can be done at sea or in port.</p>	<p>Lower</p> <p>Loading of containers can be time consuming, e.g., unloading a purse seine vessel to a reefer may take 3 to 4 days, while to containers may take 5 to 6 days.</p> <p>Additional loading time means longer turnarounds.</p> <p>Loading facilities are improving for faster loading times.</p>
FLEXIBILITY OF ROUTES	<p>Higher</p> <p>While transshipment at sea is planned, there is flexibility to respond to changing fishing conditions and locations as well as market demand.</p>	<p>Lower</p> <p>Fixed routes and schedules.</p>
FLEXIBILITY OF PRODUCTS	<p>Lower</p> <p>Ideal for large batches of similar products that can be stacked together and require the same temperature and storage parameters.</p>	<p>Higher</p> <p>Products can be shipped in smaller quantities with specific temperature and humidity requirements.</p> <p>Ability to sort and grade fish to maximise value.</p> <p>Able to target product to markets paying a higher price.</p>
INTERNATIONAL REGULATION AND CONTROL	<p>More</p> <p>Can make compliance more time-consuming but may also provide stronger market credentials.</p>	<p>Less</p> <p>May reduce market access.</p> <p>Increased risk of trading IUU caught fish.</p>



CASE STUDY

BALTIC PIONEER

Blue whiting imports via container

Vessel name	BALTIC PIONEER
IMO number	9070137
Flag in 2018	Liberia
Year of build	1993
GT	10,374
Insulated capacity	17,303
TEU	234

In 2018 BALTIC PIONEER offloaded a total of 138,857 cartons of blue whiting each weighing 30kg for import into Nigeria. Blue whiting occurs throughout the north east Atlantic from Spain to Iceland and Svalbard, but it is most abundant during the spring spawning period in deep water to the west of Scotland and Ireland and along the Faroe-Shetland channel. In Nigeria blue whiting is destined for human consumption and plays an important role in ensuring food security by supplying a nutritious and relatively cheap source of protein.

Import is from European wholesale companies. Source countries and ports of loading are dominated by Faroe Islands, which accounts for 37% of Nigeria's blue whiting imports, followed by Ireland, 27% and Netherlands, 26%.

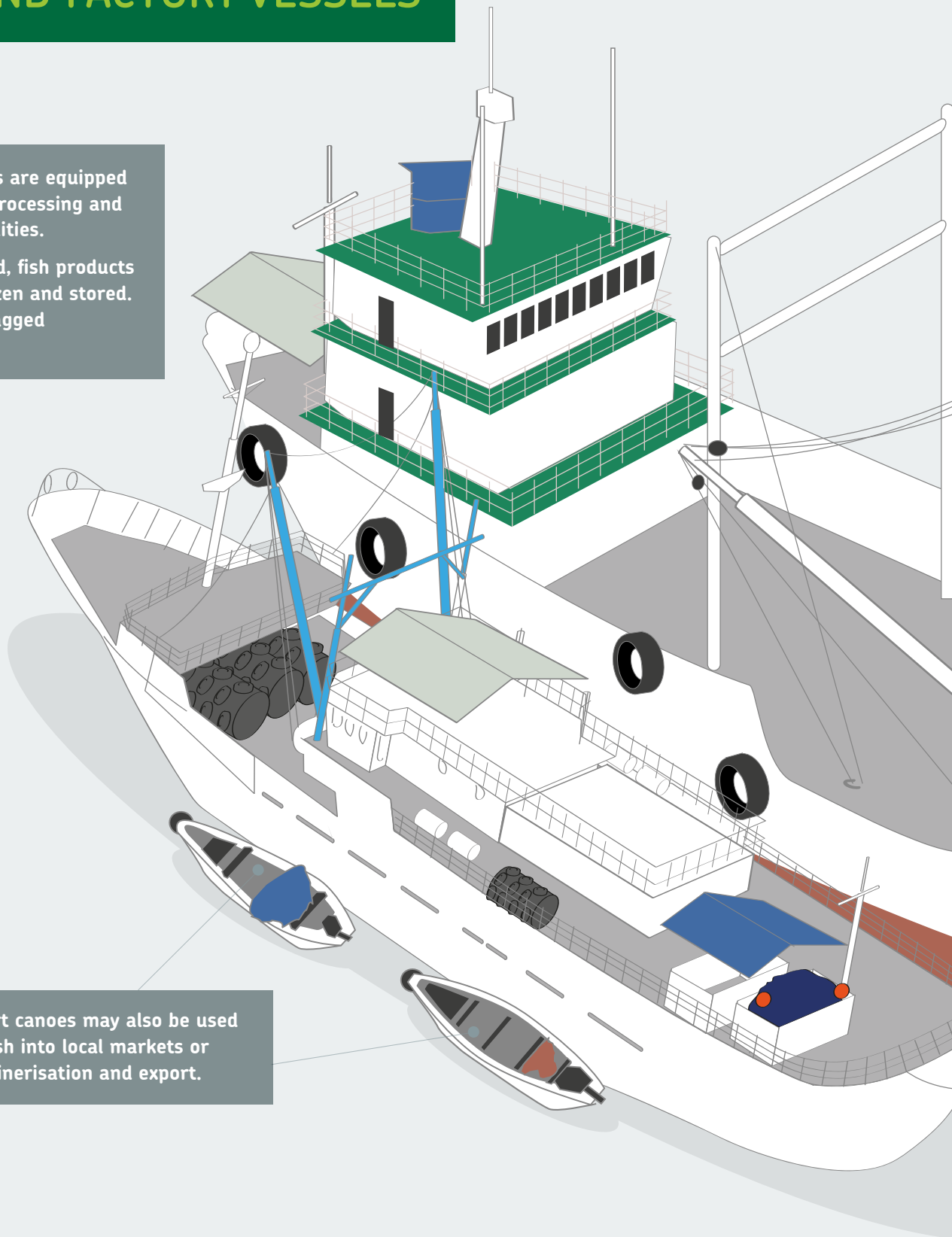
The BALTIC PIONEER had an at-sea encounter in the Arabian Sea with the reefer OCEAN STAR 86.



2.4 TRANSHIPMENT AND FACTORY VESSELS

Factory vessels are equipped with sorting, processing and packaging facilities.

Once processed, fish products are boxed, frozen and stored. Fish meal is bagged and stored.



Small transport canoes may also be used to transport fish into local markets or even for containerisation and export.



From: **Fishing vessels, canoes**
To: **Reefers, transport vessels**



Demersal species
Small pelagics



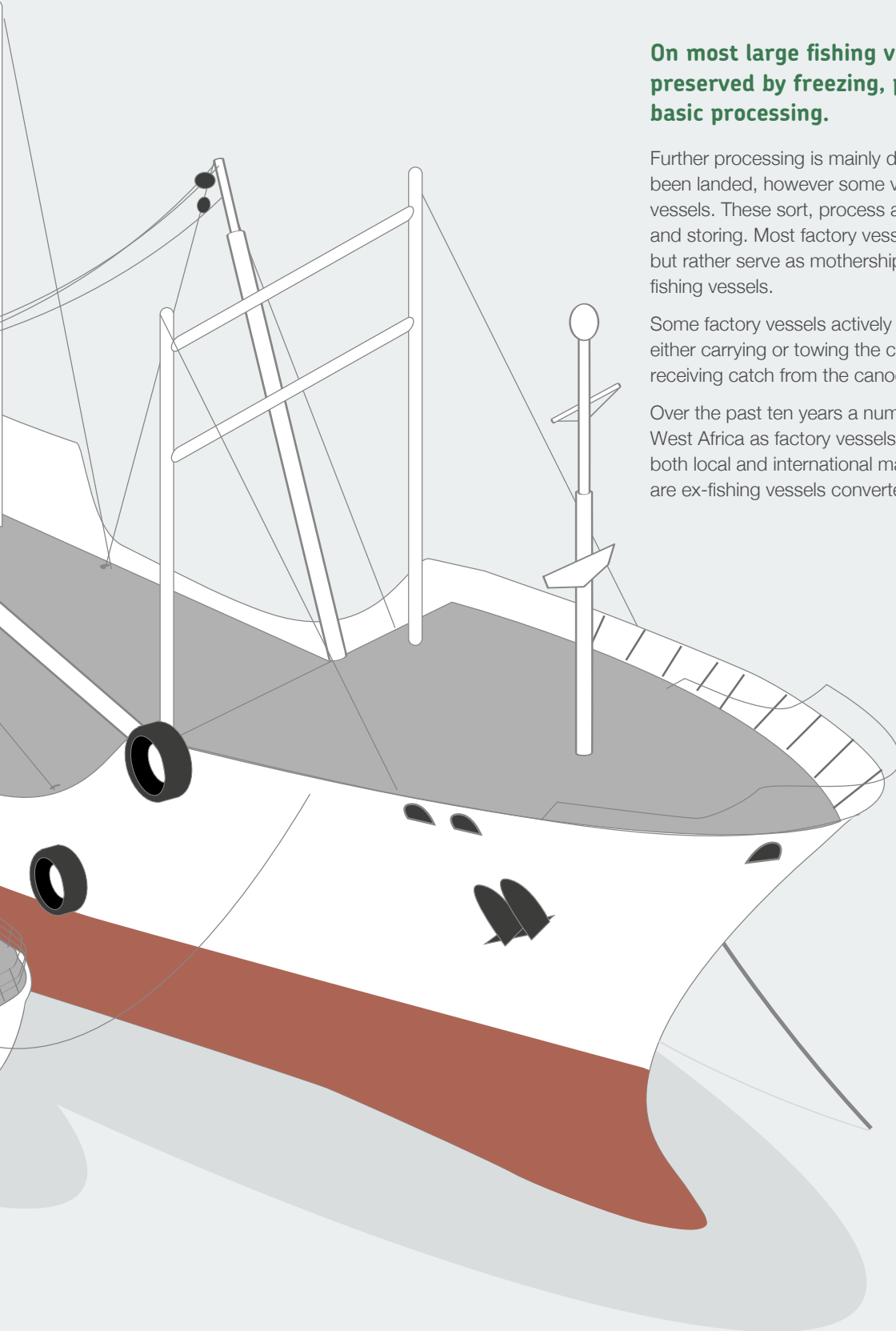
Anchorage – unofficial
EEZs
Port

On most large fishing vessels, the catch is preserved by freezing, possibly after some basic processing.

Further processing is mainly done once the catch has been landed, however some vessels are dedicated factory vessels. These sort, process and package fish before freezing and storing. Most factory vessels do not catch fish themselves but rather serve as motherships for a fleet of trawlers and other fishing vessels.

Some factory vessels actively support canoe fishing operations, either carrying or towing the canoes to a fishing area and then receiving catch from the canoes.

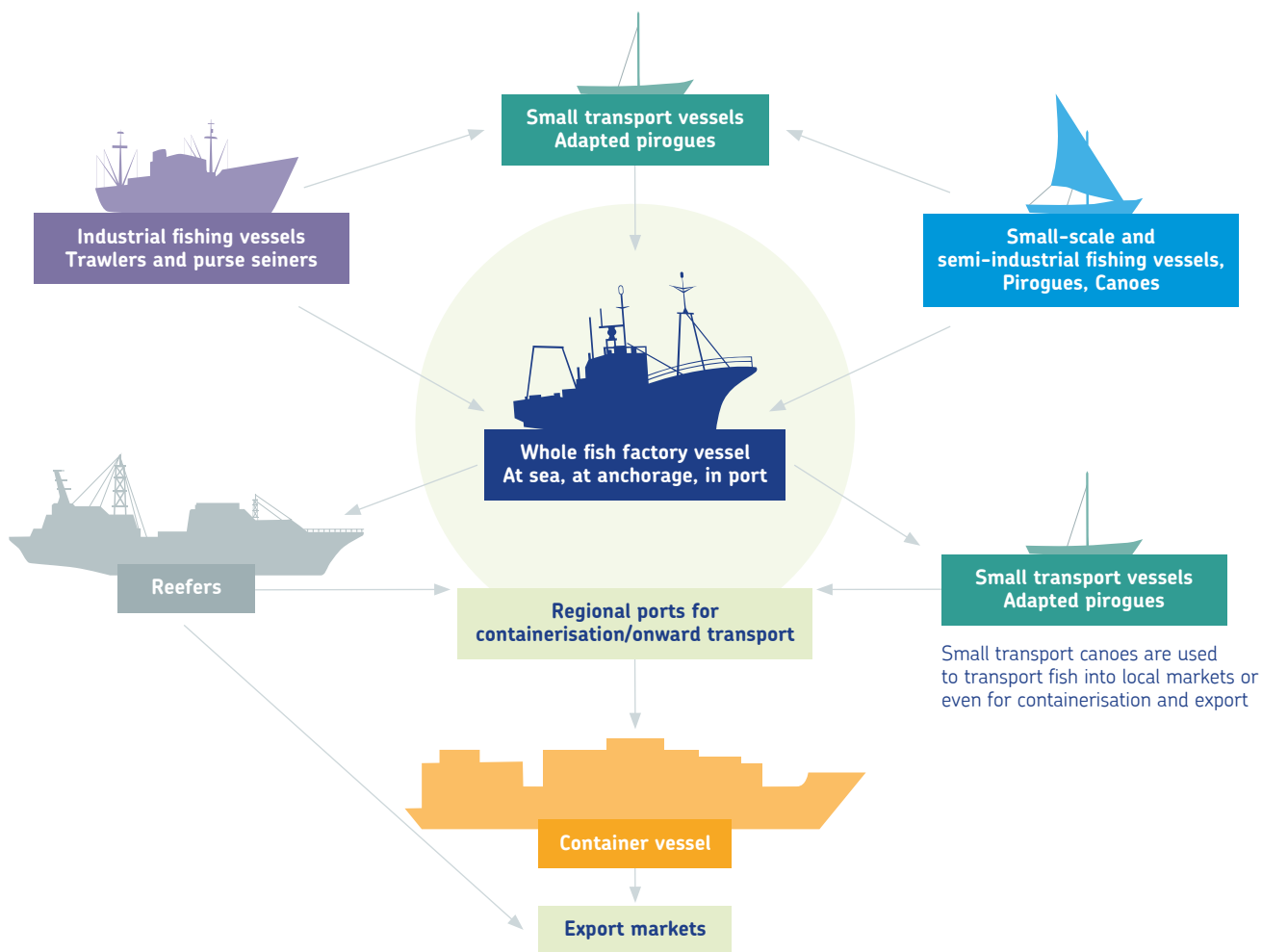
Over the past ten years a number of vessels have operated in West Africa as factory vessels that provide fish and fishmeal into both local and international markets. Frequently these vessels are ex-fishing vessels converted to factory vessels.



WHOLE FISH FACTORY VESSELS

Some factory vessels specialise in the processing of whole fish. High value species (such as croakers) go to the international market; there have been documented cases of the factory vessel transshipping to a reefer for this purpose. Some lower value species may enter the local market. Such vessels may also have the capacity to make fishmeal and fish oil from waste products.

WHOLE FISH FACTORY VESSEL THE SUPPLY CHAIN



FISHMEAL FACTORY VESSELS

There are also factory vessels that specialise in the production of fishmeal and fish oil. Whole fish, fish trimmings or other fish processing by-products can be used to produce fishmeal and fish oil. Small pelagic species are commonly used for this production. Fishmeal is obtained after milling and drying of fish or fish parts, while fish oil is made from pressing cooked fish with subsequent centrifugation of the liquid obtained¹⁸.

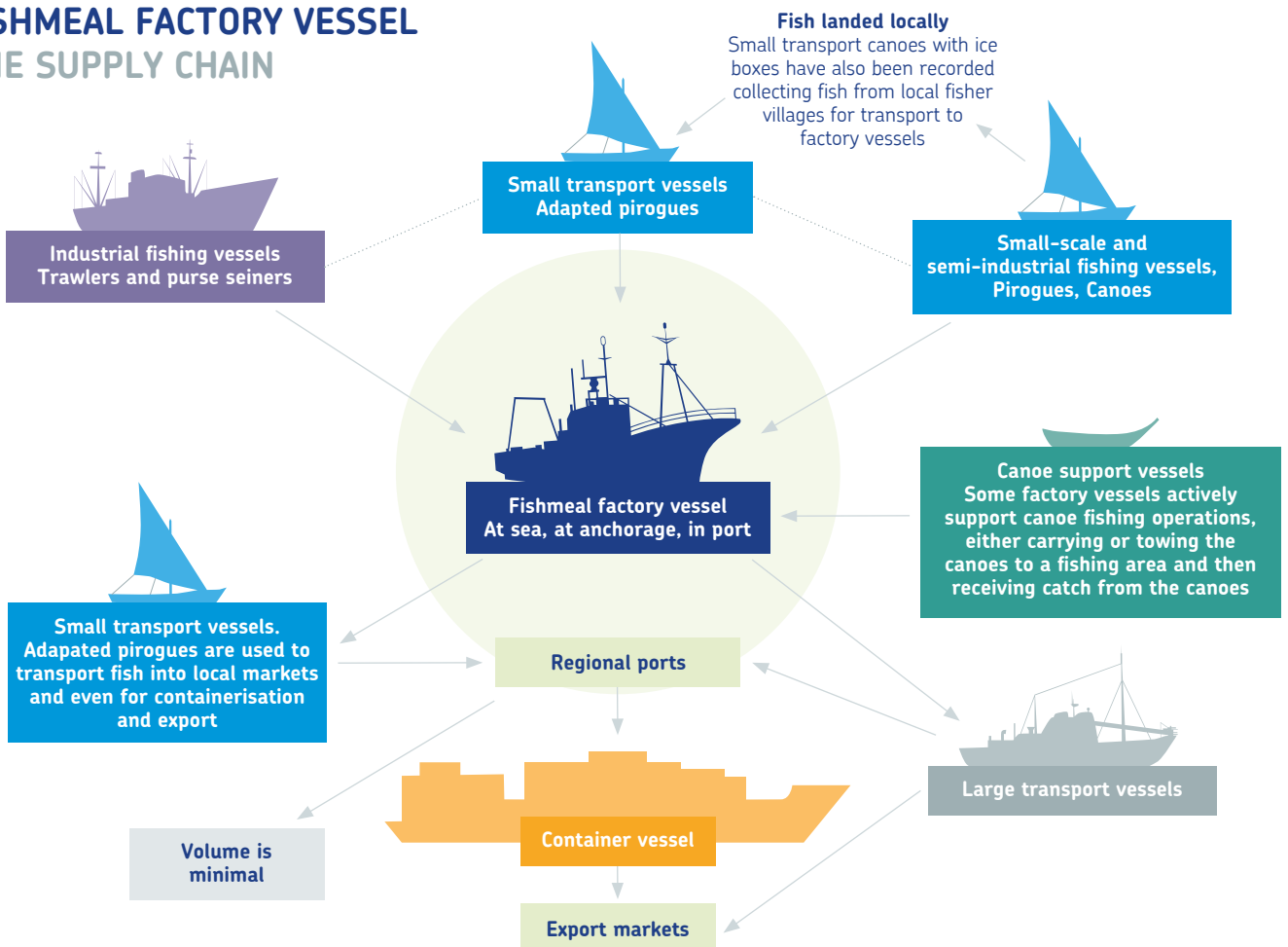
In recent years, the boom in the fishmeal and fish oil (FMFO) sector has led to the development of land-based and sea-based fishmeal processing facilities exploiting the small

pelagic stocks found in the coastal waters off Northwest Africa, particularly in Mauritania, Senegal, and The Gambia. This growth is primarily driven by overseas investors. Primary importers of FMFO from West Africa include China, the European Union (EU) and Turkey.¹⁹

Local food security is considered to be at risk as the primary species for the fishmeal and oil industry are round and flat sardinella and bonga, which are also essential to food security and livelihoods in fishing communities²⁰.

No fishmeal factory vessels are currently active in the FCWC region.

FISHMEAL FACTORY VESSEL THE SUPPLY CHAIN



¹⁸FAO SOFIA. The state of world fisheries and aquaculture 2020. <http://www.fao.org/3/ca9229en/CA9229EN.pdf>

^{19/20}Greenpeace. A waste of fish – food security under threat from the fishmeal and fish oil industry in West Africa. Published by Greenpeace International. June 2019.



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CASE STUDY

TIAN YI HE 6

Fishmeal factory vessel operating in West Africa



At sea (suspected)
Fishing vessel to
factory ship
Factory ship to reefer



Small pelagics

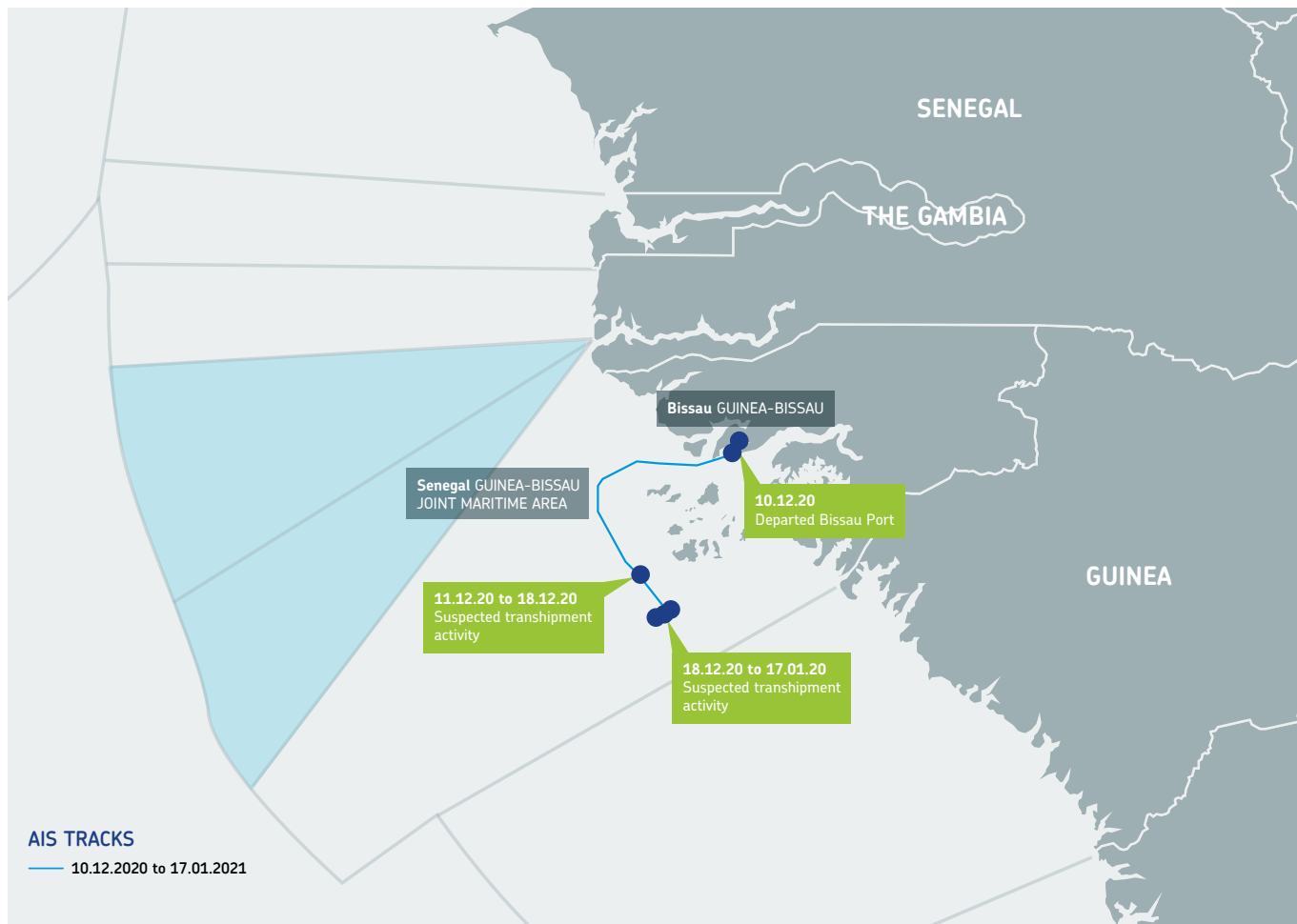


Compliance
Loitering
Encounters

The TIAN YI HE 6 is a fishmeal factory ship that started operations in West Africa in late 2019, after transiting from China. AIS monitoring indicates the vessel was not active on fishing grounds between 2017 and 2019. The vessel was monitored by the WATF when it arrived in the region at a time when small pelagic fishing vessels were looking for new fishing opportunities in West Africa countries, and the Chinese market for fishmeal had a product shortfall, particularly for high quality fishmeal.

The TIAN YI HE 6 was previously active in the Northwest Indian Ocean (potentially in the squid fishery – squid-meal being a known substitute for fishmeal, particularly for use in aquaculture), and then in the Northwest Pacific Ocean.

Shortly after its arrival in Guinea-Bissau, the vessel was accused of hiding its fisheries purpose and as a result was fined for failure to notify Guinea-Bissau authorities when entering the EEZ, a violation of the national fisheries law, and for obstructing the work of fisheries inspectors.



Vessel name	TIAN YI HE 6
IMO number	8698633
Flag in 2018	China
Year of build	2010
GT	11,296
Insulated capacity	Not known
TEU	0

Compliance

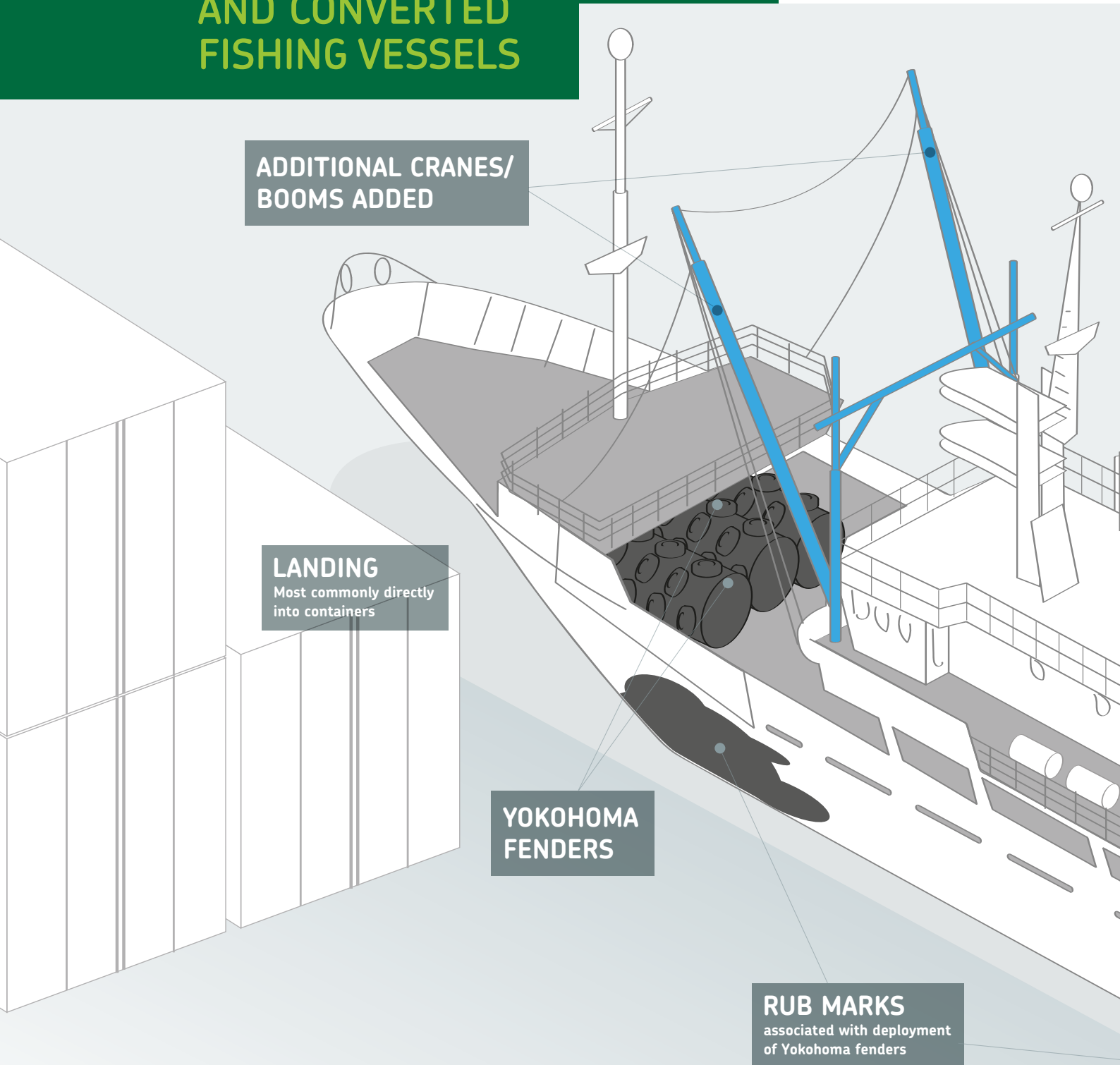
The vessel started operations in Guinea-Bissau in November 2019, and its stationary behaviour in the Senegal-Guinea-Bissau Joint Maritime Area prompted an investigation by Guinea-Bissau authorities. Authorisation is also required to operate as a fish carrier vessel, and transshipment is restricted to a dedicated area near the port of Bissau.

The investigation identified several unauthorised at-sea transshipment operations with Turkish-flagged purse seiners targeting small pelagics, previously operating in Mauritania. The TIAN YI HE 6 and the fishing vessels providing the fish were charged and fined.

The TIAN YI HE 6 resumed operations in the Guinea-Bissau EEZ in February 2020. In March 2020 the TIAN YI HE 6 and a Dakar-based transport vessel were caught in the middle of an unauthorised at-sea transshipment operation. Ongoing monitoring suggests that possible at-sea transshipment operations have continued to take place, involving Turkish-flagged purse seiners, as well as new Chinese-built vessels flagged in São Tomé and Príncipe that arrived in Guinea-Bissau in October 2020. Fishmeal landed in the region's hubs – either by the factory ship itself or by associated transport vessels – for onward exportation to end markets should therefore also be the focus of thorough port controls.

2.5 TRANSHIPMENT

AND CONVERTED FISHING VESSELS



**ADDITIONAL CRANES/
BOOMS ADDED**

LANDING
Most commonly directly
into containers

**YOKOHOMA
FENDERS**

RUB MARKS
associated with deployment
of Yokohoma fenders



From: **Fishing vessels**
To: **Container in port**



Tuna
Shark
Demersal species
Small pelagics



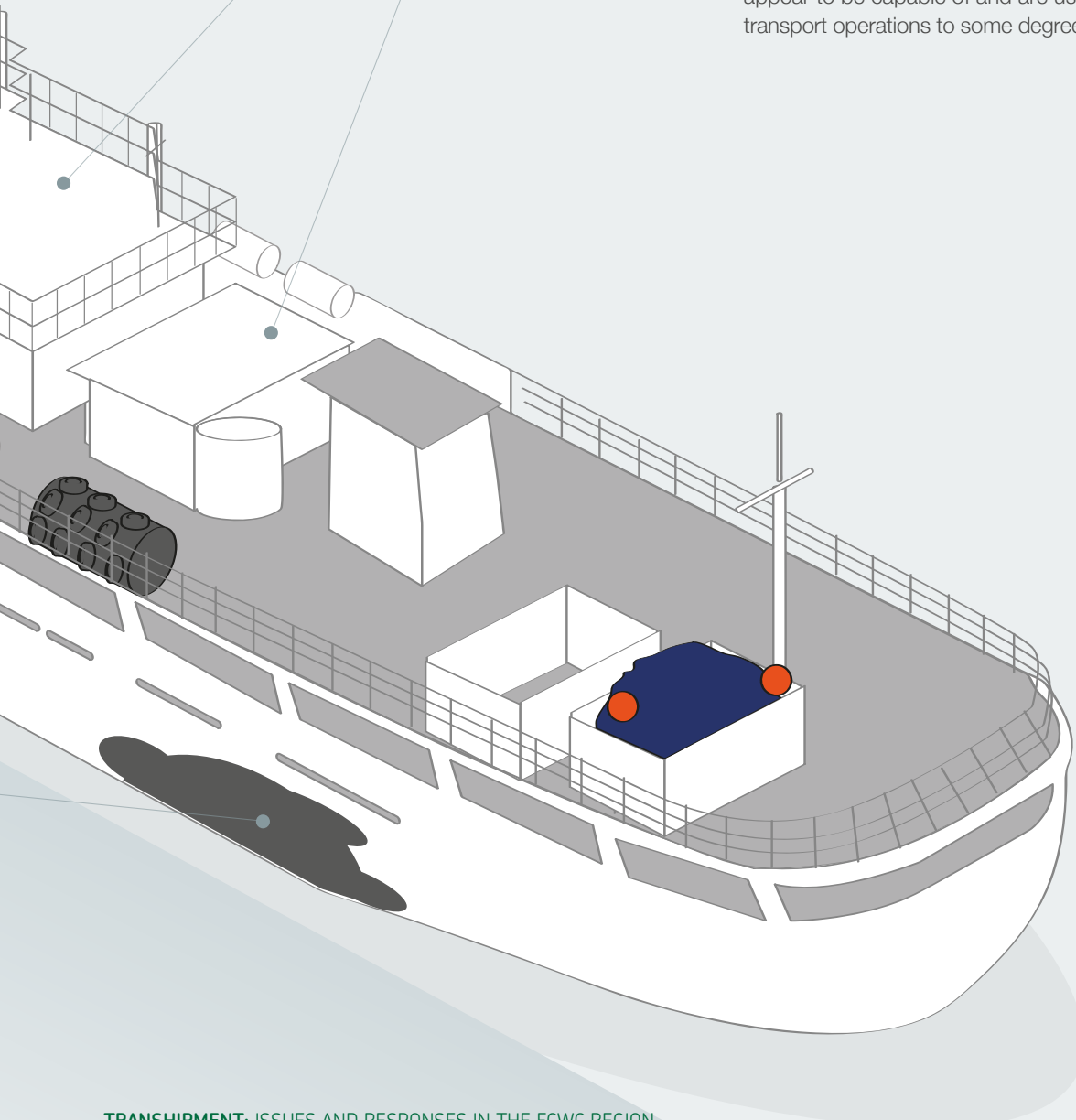
High seas
EEZs

In recent years a new type of transshipment vessel has appeared in the broader West Africa region. Fishing vessels are switching operations from fish catching to fish transport operations.

While, visually these vessels can be difficult to distinguish from active fishing vessels, some of them have been linked to illegal fishing, fish laundering, document fraud and forgery, complex company structures and opaque beneficial ownership.

These vessels, sometimes known as ‘mini-reefers’ may be reconfigured to have larger cargo and freezing capacity, as well as deck cranes and booms to conduct at-sea transshipment operations. They may carry Yokohama fenders to enable them to come safely alongside another vessel at sea. Or they may, at the simplest, have the fishing gear removed or stowed, and the holds are used to store transhipped fish. However, these are not necessarily permanent changes, and in some cases, vessels appear to be capable of and are used in both fishing and transport operations to some degree interchangeably.

POSSIBLE ADDITIONAL FREEZER HOLD SPACE ADDED





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CASE STUDY

Converted fishing vessel used as a mini-reefer



**At-sea: Fishing vessel
to mini-reefer**
**In port: Mini-reefer
to container**



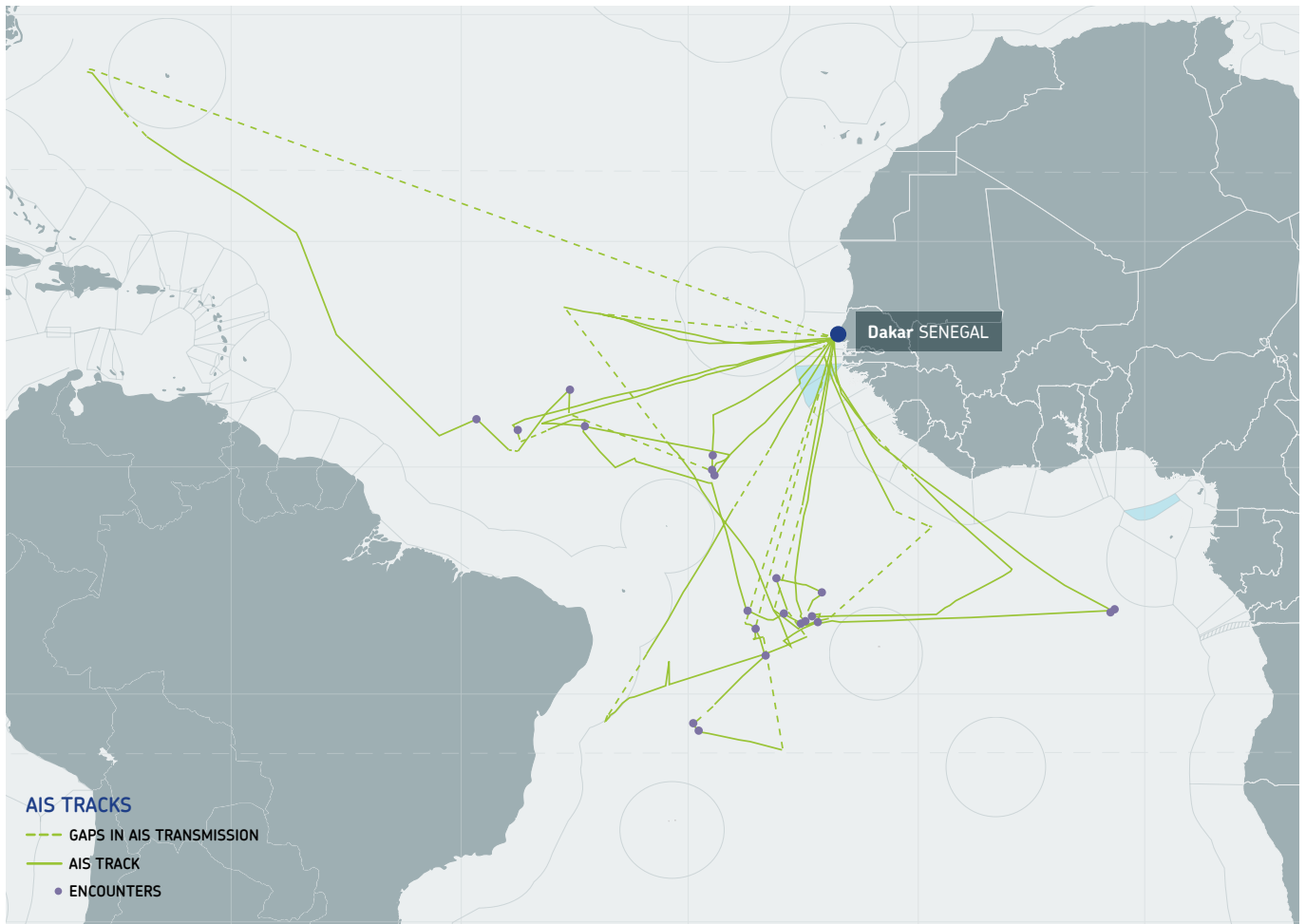
**Tuna
Shark**
Not known



**Monitoring
Enforcement
Authorisation**

While this practice of converting fishing vessels to transport vessels is suspected to be happening in various parts of the world, converted longliners operating in the central and southern Atlantic tuna fisheries, and using West African ports, seem to have particularly expanded operations in the past few years. While a few of these vessels appear to not be authorised to operate in the ICCAT region at all, the majority have carried authorisations and have been recorded in the ICCAT of vessels. However, most commonly these vessels are registered as fishing vessels and authorised to catch fish rather than to conduct at-sea transshipment operations and to transport fish. In both cases, not authorised or wrongly authorised, any transshipment that happens at sea is unauthorised.

These converted vessels have operated primarily out of the port of Dakar, Senegal, but occasionally use other regional ports as well, including within FCWC member States. There are indications of interactions at sea, indicating possible unauthorised transshipment with longliners under various open registry and East Asian flags. Another compliance challenge with these vessels is that if they are registered as fishing vessels and authorised to catch fish, the catch that they collect during illegal at-sea transshipments, possibly from unlicensed fishing vessels, can be laundered into the supply chain disguised as legally caught fish, caught and landed or transhipped by a 'licensed' fishing vessel.



Operational pattern

The system of relatively easy conversion between fishing and transport vessels, enables the vessel to pretend to be an active fishing vessel when required, making monitoring difficult and avoiding suspicion from authorities, even if the vessel is registered on flag or coastal States' VMS.

An indicator that a fishing vessel is operating as a transport vessel is the length of its voyages and frequency of its port visits. For example, the vessel whose track is displayed here shows frequent direct voyages to known fishing grounds,

short loitering events, and then direct voyages back to port – with port visits every four to six weeks. This is very unlike the normal operations of a longliner that will be at sea for several months, display clear gear setting patterns, and enter port only when necessary. Frequent port visits would be un-economic for normal longliner operations unless a high value cargo was being transhipped and landed that needed to quickly access the market. Fish transhipped in port from these converted fishing vessels appears to generally be offloaded directly into containers.



Converted fishing vessels may carry Yokohama fenders to enable them to come safely alongside another vessel at sea.

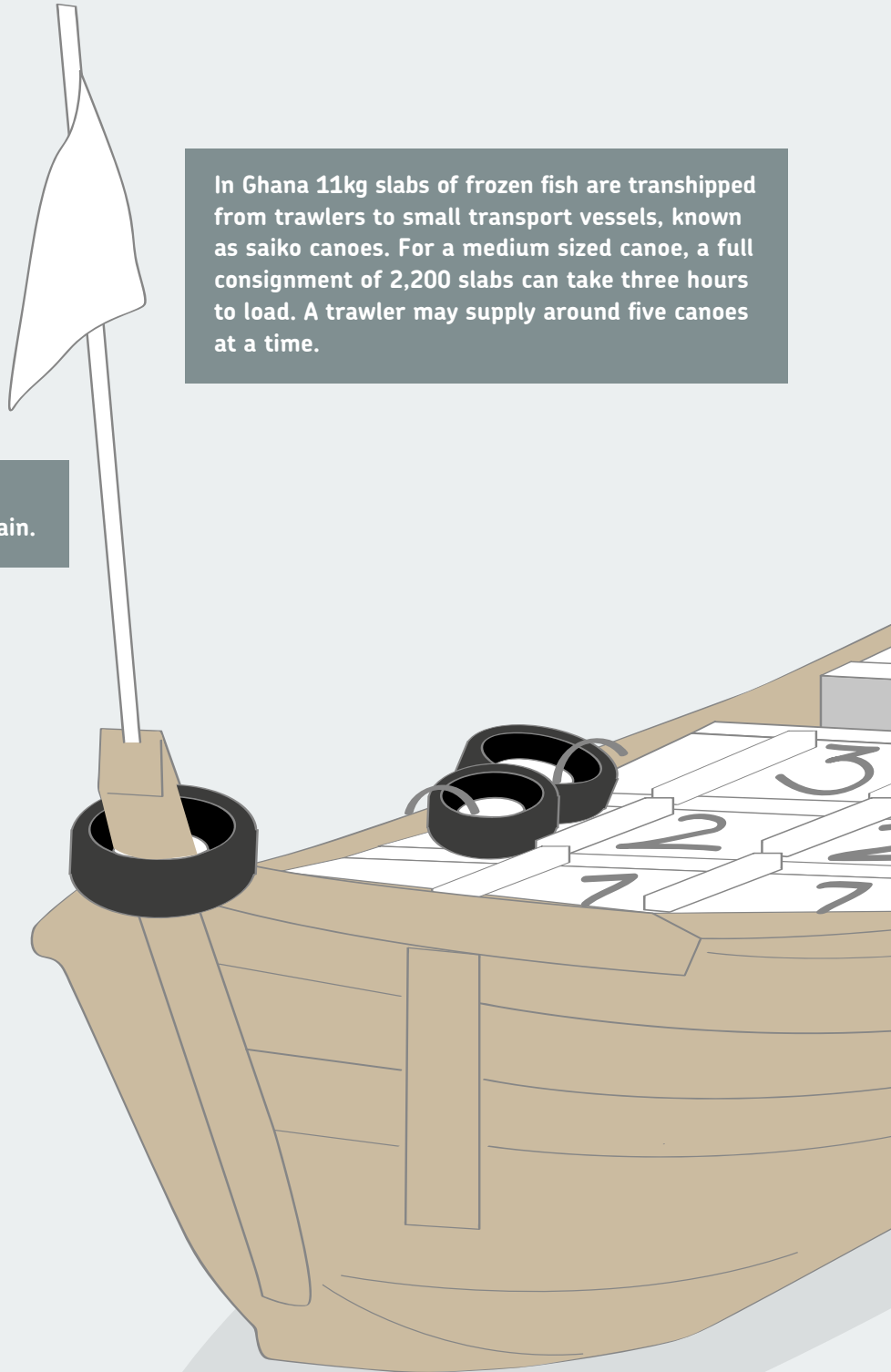
2.6 TRANSHIPMENT

AND SMALL TRANSPORT VESSELS

This type of transshipment used to be a practice whereby canoes would buy the unwanted bycatch of industrial vessels, contributing to food security in seasons when artisanal catches were low. Over time, the practice has developed into an industry.

In Ghana 11kg slabs of frozen fish are transhipped from trawlers to small transport vessels, known as saiko canoes. For a medium sized canoe, a full consignment of 2,200 slabs can take three hours to load. A trawler may supply around five canoes at a time.

Small transport vessels usually deliver supplies for the trawler crew and captain.



Source: EJF and Hen Mpoano (2019). Stolen at sea. How illegal 'saiko' fishing is fuelling the collapse of Ghana's fisheries.



From: **Fishing vessels, reefers, factory vessels**
To: **Port**

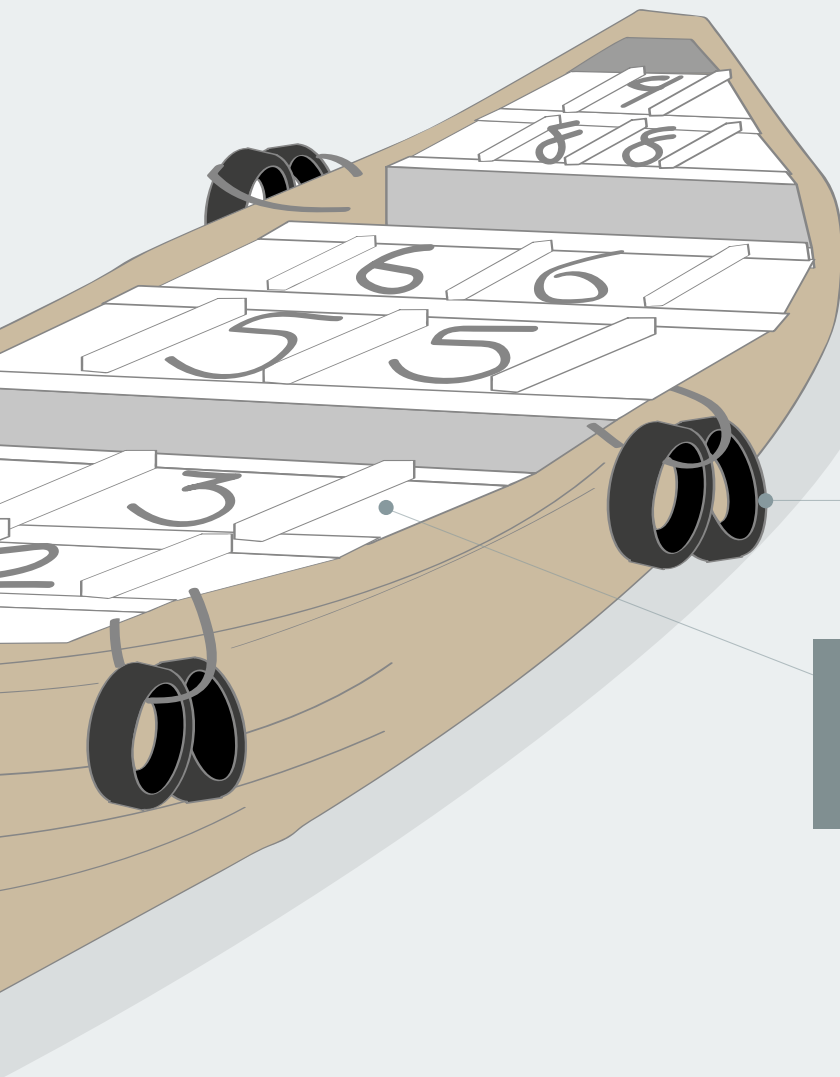


Small pelagics
Demersal
Tuna



At sea

An average transport canoe, with the capacity to hold approximately 2,400 slabs of fish, lands in a single trip the equivalent of around 450 artisanal fishing trips. Larger canoes (>17 meters in length) tend to operate more frequently, often transshipping on a contract basis for industrial fishing companies.



Tyres used as fenders.

The transport canoes do not have cooling facilities but store the fish in planked compartments and use blankets made of thick cloth to keep the deep-frozen slabs of fish frozen for several days.



Status in the FCWC region

CÔTE D'IVOIRE

Vessels	Purse seiners, reefers and trawlers. Foreign purse seiners and trawlers barter with canoes during the lifting of the net or the sorting of catches, with a view to recovering discards and by-catch.
Target species	Tuna (unwanted, damaged or undersized tuna species caught by purse seiners). Demersal species (trawler bycatch).
Market	Local sale and consumption.
Where	At sea or unmonitored anchorages.
Is it legal?	No.

CÔTE D'IVOIRE

GHANA

MONROVIA

LIBERIA

ABIDJAN

TAKORADI

LIBERIA

This practice is reported to take place occasionally in Liberia.

GHANA

Vessels	Trawlers to customised canoes. Of the 70 trawlers operating in Ghana only one company, that controls 20 vessels still operate 'saiko'.
Target species	Small pelagics (targeted by trawlers). Demersal species (trawler bycatch).
Market	Local sale and consumption. Export (uncertain/small volumes).
Where	At sea or unmonitored anchorages. In port or designated anchorage.
Is it legal?	Only legal when it takes place in port or at official anchorage, with prior authorisation and under supervision.

Transshipment of fish from industrial fishing vessels to smaller vessels started as a means of 'bartering' fish for goods. In recent years this has, in some fisheries, developed into a lucrative business, providing a way for industrial fishing vessels to land unwanted, damaged, undersized or illicit catch outside of a port, while evading controls. In trawl fisheries in particular, the practice is considered to have a devastating impact on stocks as it creates a demand for undersized fish.

In Ghana this transshipment is known as 'saiko' and has become an entrenched and well-documented practice. But the practice of illegally transferring fish from industrial fishing vessels to

smaller boats for onward transport and sale appears elsewhere in the FCWC region under various forms. Benin, for instance, has seen attempts by Ghanaian nationals to import the practice and Nigerian officials report that fish bycatch by shrimp trawlers is often transferred to small-scale fishing boats or transport canoes for onward transport.

Countries neighbouring the FCWC region have also seen the practice growing in recent years: in Sierra Leone it is called 'chenji', and in Cameroon the practice of transferring undersized fish to canoes for transport is well established, with the risk that it could have cross-border ramifications for the FCWC region.

TOGO

This practice is reported to take place occasionally in Togo.

BENIN

Vessels Chinese trawlers based at the Cotonou Fishing port.

Target species Sea cucumbers.

Market Export.

Where At sea or unmonitored anchorages.

Is it legal? No.

NIGERIA

Vessels Trawlers.

Target species Demersal species (trawler bycatch).

Market Local sale and consumption.

Where At sea or unmonitored anchorages.

Is it legal? No.



From: **Fishing vessels and reefers**
To: **Canoes**



Demersal species
Sea cucumber
Small pelagics
Tuna



Anchorage – unofficial EEZs

Country	Local name	Does it happen at sea or in unmonitored anchorages?	Is it legal?	Does it happen in port or designated anchorages?	Is it legal?
Benin	–	Yes	No	No	Yes, with prior authorisation
Côte d'Ivoire	–	Yes	No	Yes	Yes, with prior authorisation
Ghana	Saiko	Yes	No	No	Yes, with prior authorisation and under supervision
Liberia	–	No	No	No	No
Nigeria	Yama-yama	Yes	No	No	No
Togo	–	No	No	No	Yes, with prior authorisation and under supervision



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CASE STUDY

SAIKO in GHANA

Transshipment to small transport vessels



**At-sea
Trawler to transport
canoe**



Small pelagics



**Ownership
Monitoring
Enforcement**

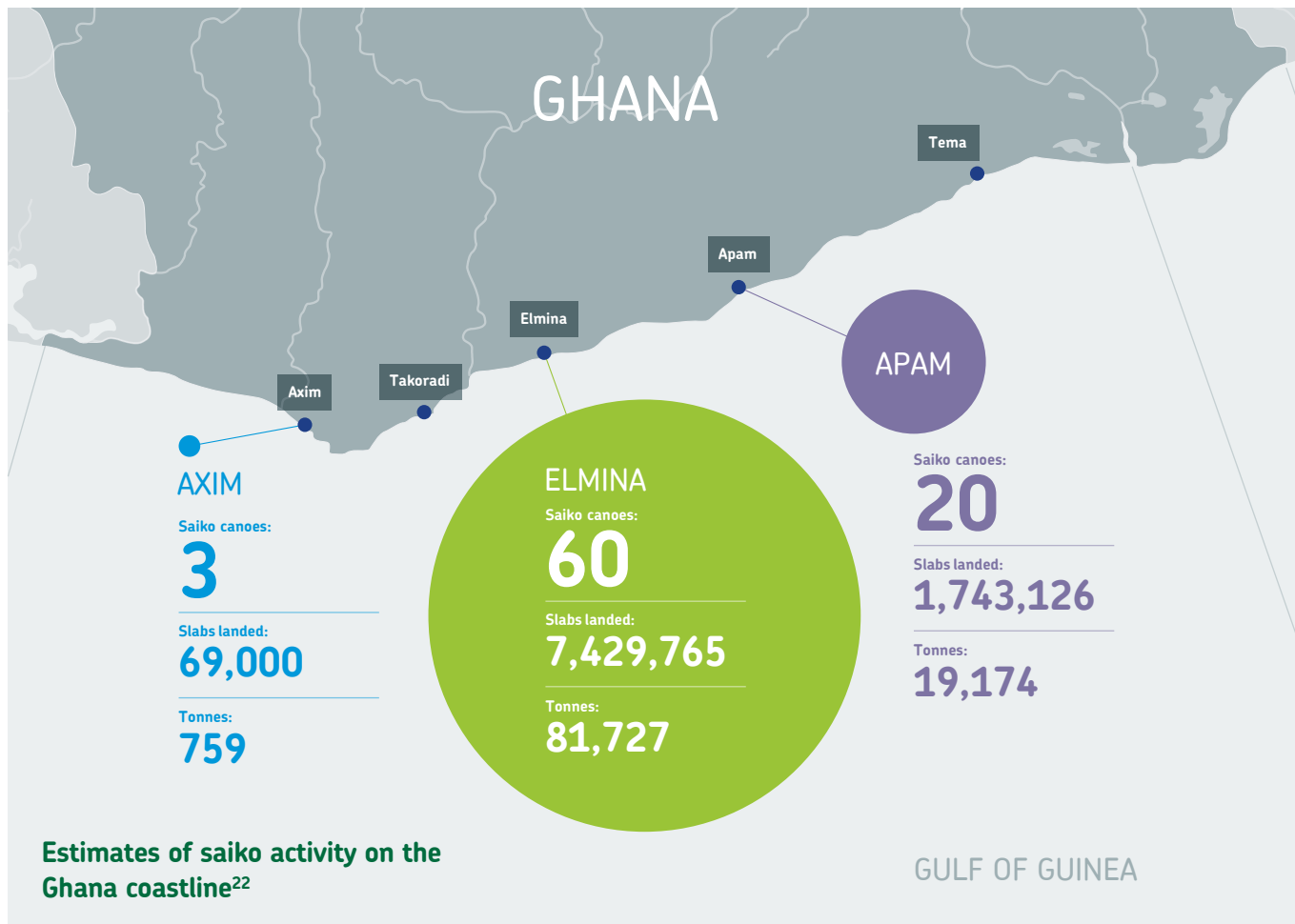
Saiko is an example of transshipment from fishing vessels to small transport vessels. It began as a practice whereby Ghanaian canoes would trade supplies for unwanted bycatch from industrial trawlers. But today these trawlers actively catch such fish to, while still at sea, transfer it frozen to specially adapted canoes. These canoes then transport the fish to landing sites and fish markets. Such trawlers are licensed to catch demersal species but in reality, they also catch small pelagic species such as sardinella and mackerel, thus competing with the artisanal fishing community and contributing to overfishing of the stocks. While saiko is commonly practiced in Ghanaian waters, Ghanaian saiko canoes also travel to the border with Côte d'Ivoire, in order to trade with industrial vessels fishing there.

Due to saiko's illegal and unreported nature, there is limited information on the scale of and composition of the catches. However, a recent study by EJF and Hen Mpoano²¹ estimates that approximately 100,000 MT of fish were landed through saiko in 2017. Small pelagic species make up more than half

of the saiko catch weight, and the value of fish sold at sea is estimated as between USD 40 to 50 million. The value of this increases when it is sold at the landing sites to an estimated USD 53 to USD 81 million.

Combining saiko landings with official landings reported by the industrial trawl fleet of 67,205 MT, it is estimated that trawlers caught approximately 167,000 MT of fish in 2017. Estimated landings of the trawl fleet in 2017 were similar in magnitude to the landings of the entire small-scale fishing sector. This suggests that just 40% of catches were landed legally and reported to the Fisheries Commission in 2017, despite having fishery observers present to monitor fishing activity on some of the vessels. As the saiko fish are not landed in ports but transhipped at sea, Ghanaian inspectors are unable to monitor the transshipment or landing of the catch. This means that they cannot verify catch volume or species composition correctly during their routine implementation of port State measures and vessel inspections.

²¹EJF and Hen Mpoano (2019). Stolen at sea. How illegal 'saiko' fishing is fuelling the collapse of Ghana's fisheries. http://ejf.mudbank.uk/resources/downloads/Stolen-at-sea_06_2019.pdf



Impacts

The transshipment of fish at sea from Ghanaian industrial fishing vessels to canoes is prohibited in Ghana's 2010 Fisheries Regulations. Lack of enforcement means that industrial trawlers lack incentive to reduce their bycatch and artisanal fishers are demotivated to address their own destructive fishing practices – including the use of dynamite, poison and undersized mesh nets – as well as their over-capacity.

The saiko industry employs significantly fewer people than the artisanal sector, 1,500 versus two million in the artisanal sector²³. However, an average saiko canoe lands in a single trip the equivalent of around 450 artisanal fishing trips. So while the saiko industry has expanded rapidly, the catches of the artisanal fishery have been declining despite increased fishing effort. This affects livelihoods and poverty levels as around 200 coastal villages rely on fisheries as their primary source of income. Furthermore, saiko depresses the prices on the market, in particular for small pelagics, which means the artisanal fishers get less for the fish they manage to catch.

The substantial catch of small pelagic fish through saiko is unreported and not included in marine fishery statistics. Juveniles make up a significant portion of the saiko catch, affecting the viability of the stock. Recent assessments suggest that Ghana's small pelagics fishery may collapse in the short term²⁴.

Despite national laws prohibiting foreign ownership and control in the sector, over 90% of the industrial trawl fleet operating in Ghana are linked to Chinese beneficial owners, although the fishing vessels are flagged to Ghana.

²²Slabs landed (≈11kg).

²³Crewmembers, watchmen and hustlers (EJF & Hen Mpoano, 2019).

²⁴Lazar, N., et al. (2018). Status of the small pelagic stocks in Ghana and recommendations to achieve sustainable fishing 2017. Scientific and Technical Working Group. USAID/ Ghana Sustainable Fisheries Management Project (SFMP). Coastal Resources Center, Graduate School of Oceanography, University of Rhode Island.

MINISTÈRE DES RESSOURCES
DIRECTION DE L'AQUACULTURE
SOUS-DIRECTION DE LA PÊCHE MARITIME
ET LAGUNAIRE

BUREAU DE CONTRÔLE
ET D'INSPECTION
DES NAVIRES DE PÊCHE
ET DES NAVIRES D'ENTRETIEN
A LA MER



03

FCWC TRANSHIPMENT ISSUES AND RESPONSES

3.1	Transhipment issues	122
3.2	Transhipment responses	132

3.1 TRANSHIPMENT

ISSUES

From an MCS perspective, transshipment is a known operational opportunity for monitoring fishery catches and other aspects related to the fishing vessel, its documents, gear and crew. An opportunity, which once missed makes later identification of IUU caught fish more difficult, and often impossible. However, as this report demonstrates, the movement of fish from catching vessel to consumer is complex, with fish being transhipped multiple times, between different vessel types, operators and jurisdictions, making its monitoring highly complex and challenging.

Analysis presented in the first two sections of this report has led to identification of cross-cutting transshipment issues of relevance to the FCWC region. They are discussed in the following sections:



Definition and interpretation



Regulatory gaps and loopholes



Rethinking blue growth



Accountability and oversight



Capacity at critical points



Imports versus exports



Information sharing and cooperation



DEFINITION AND INTERPRETATION

The definition of transshipment, when provided, varies within different national, regional, and international frameworks but often, despite its wide use, transshipment is not defined. This has led to the term transshipment having different interpretations and a variety of applications. The different explicit definitions and implicit meanings can cause challenges for discussions, decision making, MCS efforts and enforcement – because even if the same words are used, the meaning may differ. For example:

Transshipment or landing?

The term transshipment suggests the involvement of two or more vessels, but this is not always the case. Some interpretations include the movement of items from a vessel to or from a container or cold storage, which can also be known as landing or offloading. Interpretation of this may impact on the MCS regime that the product falls into, such as if port State measures are applicable, or which tax and trade tariffs are applicable to it.

Fishing or carrier vessel?

Transshipment can involve various types of vessels, including the movement of items between one or more fishing, transport or support vessels or any other type of vessel. As explained above, defining vessel types can also be complex. For example, many States do not consider carrier and fishing vessels to be mutually exclusive and some States, including Liberia and Panama, do not require that a carrier vessel does not fish.

What is being transhipped?

Catch is often the main item of concern in transshipment, but it may include supplies, crew, bait, fish cartons, fuel, food, water, or equipment.

Which transshipments?

In different legislation or definitions, it is sometimes only the movement of fish or seafood from the catching vessel that is included. Whilst in others, it is the movement of fish until the first point of 'landing' or 'importation' to a country, and in others all movement of fish and seafood and their products between, from or to a vessel are included in the definition of transshipment.

Only industrial catches?

Regulations and monitoring efforts often only deal with industrial fisheries and larger scale vessels. As has been demonstrated in this report, all types of transshipment are important and small scale and artisanal transshipment need to be incorporated into definitions.

New and well-defined wording for transshipment and landing is required. This needs to include scope to include and differentiate between types of transshipment, including those explained in this report, and between different vessels such as reefers, fishing vessels, converted fishing vessels, containers, factory vessels and small transport vessels. The definitions should be unambiguous, in line, as far as possible with other FAO instruments that include definitions of the terms, and applicable to the different national and regional scenarios identified including incorporating industrial and small-scale fisheries.



REGULATORY GAPS AND LOOPHOLES

The regulatory regime that applies to transshipment is complex, overlapping and with gaps which can result in unclear interpretation and variable application.

It is usually fisheries with high value species destined for consumption in the developed world that have systematic regulatory and traceability systems. These fisheries and their catch attract focused MCS effort, including in transshipment monitoring and the application of port State measures. This is generally related to the RFMO regulatory systems that require monitoring and/or implementing by States and trade related traceability schemes established to meet consumer demands.

Regional fishery bodies such as the FCWC, CECAF, and ATLAFCO play a significant role in policy development and provide technical advice that feeds into international regulatory frameworks. In the FCWC region there is a significant gap in the regulatory framework for non-tuna species in the Atlantic Ocean (see Figure 3.2). This leaves, in particular, the West Africa high seas small pelagic fishery without a shared regulatory system including for transshipment or landing of the catch.

Shared fisheries that are not within the jurisdiction of an RFMO have limited regulatory frameworks resulting in data poor fisheries that are then also poorly managed. Fisheries that are not of interest to developed world consumers are less likely to have a meaningful regulatory framework in place.

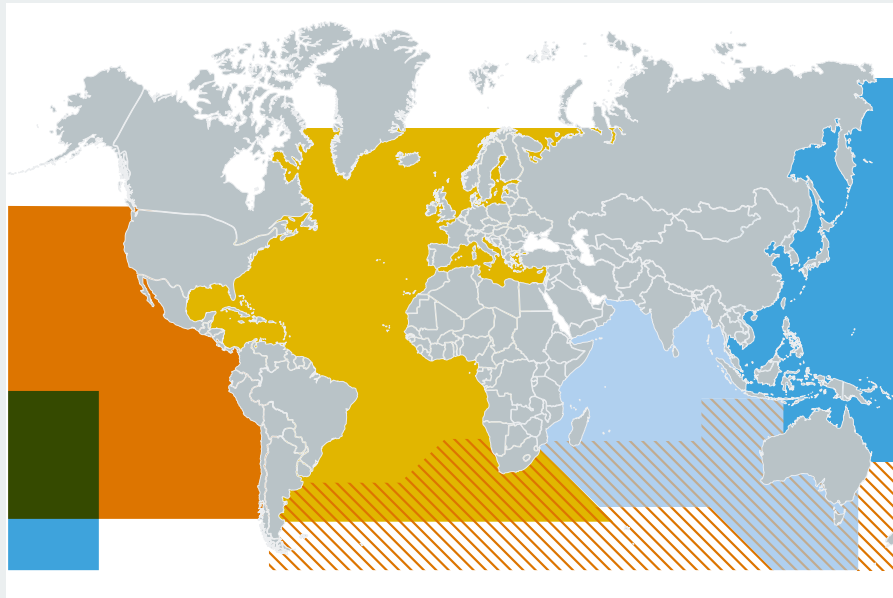
In the absence of a shared regulatory system, disparities between national regulations on transshipment can cause misinterpretations and other challenges on the part of fisheries inspectors in port States of the FCWC region where transhipped products are being landed.

The way coastal, flag and port States in the broader West African region issue a transshipment authorisation, and the way they issue the underlying permits that donor and receiving vessels may require, vary a lot. The requirements for a transshipment operation to be considered fully legal and authorised are therefore difficult to apprehend.

This is particularly true when looking at countries such as Angola, Guinea Bissau, Mauritania, Sierra Leone, etc. that are key for fish import into the FCWC region. As a result, the conditions surrounding the transshipment of fish in key source fisheries are largely unknown by fisheries inspectors in FCWC ports, impeding their ability to conduct informed controls.

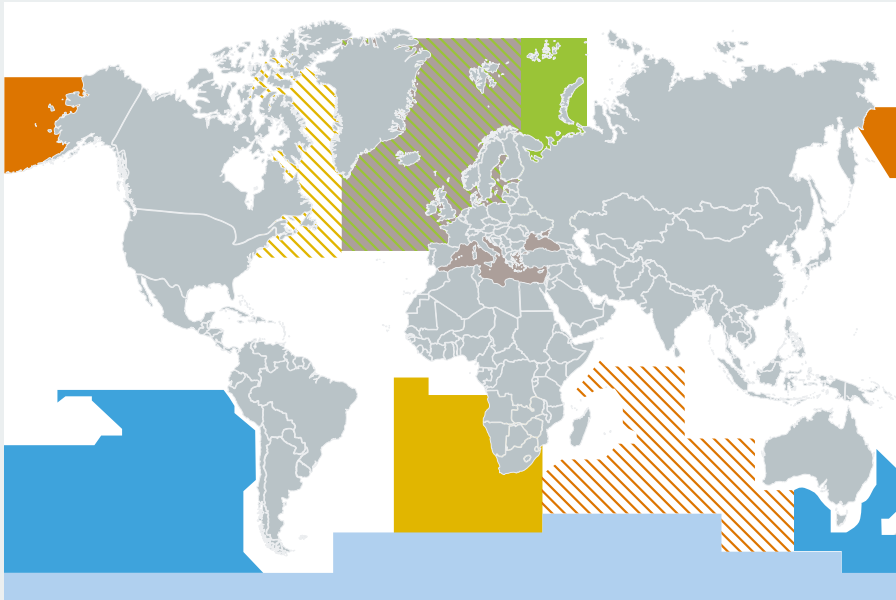
There is a pressing need to look at the entire ecosystem and to rebalance the distribution and coverage of regulatory frameworks. A more comprehensive regulatory system could include improved MCS capacity and monitoring requirements for less economically valuable fisheries that bring high nutritional and social benefits to West Africa.

Figure 3.1: Tuna RFMO jurisdiction



- **ICCAT:** International Commission for the Conservation of Atlantic Tunas
- **IOTC:** Indian Ocean Tuna Commission
- **IATTC:** Inter-American Tropical Tuna Commission
- ▨ **CCSBT:** Commission for the Conservation of Southern Bluefin Tuna
- **WCPFC:** Western and Central Pacific Fisheries Commission

Figure 3.2: Non-tuna RFMO jurisdiction



- **NEAFC:** North-East Atlantic Fisheries Commission
- **SEAFO:** South-East Atlantic Fisheries Organisation
- **GFCM:** General Fisheries Commission for the Mediterranean
- ▨ **NAFO:** Northwest Atlantic Fisheries Organisation
- **SPRFMO:** South Pacific Regional Fisheries Management Organisation
- **CCBSB:** Convention on the Conservation and Management of Pollock Resources in Central Bering Sea
- ▨ **NASCO:** North Atlantic Salmon Conservation Organisation
- ▨ **SIOFA:** South Indian Ocean Fisheries Agreement
- **CCAMLR:** Commission for the Conservation of Antarctic Marine Living Resources



RETHINKING BLUE GROWTH

Understanding how to achieve sustainable growth from the ocean is an important consideration and one that regional fisheries policies and strategies must speak to.

How the agenda is set, and who is in control of setting it, are key to the successful development of African-focused blue growth strategies. The influence of distant water fishing nations and foreign industry players can sway this agenda to support the status quo. For example, by strengthening those already active and economically powerful in the fisheries sector rather than opening dialogue with new players, and implementing smarter and more ecologically balanced approaches and strategies.

Harmful subsidies are also distorting both the current picture and limiting the opportunity to widen the playing field for future growth. Local industry that wants to compete with subsidised foreign operators can be pushed to take short and sometimes illegal cuts to make their fishing more competitive, resulting in harmful social and environmental impacts that ultimately undermine sustainable blue growth.

The blue growth agenda provides an opportunity to rethink and reprioritise domestic needs and domestic markets. This report provides a start point for exploring who is benefiting from fisheries in the FCWC region and asking strategic questions – such as how west Africans could benefit more from the protein rich and low-cost canned tuna that is currently exported to Europe.

Future transshipment guidelines, policy and regulations could encourage or require local landing of fish and seafood to promote processing facilities, encourage genuine local ownership, and provide the domestic market with high protein products. Smart blue growth agendas could bring environmental benefits in terms of fishing, transport costs, reduced food miles and more – while providing nutrition and employment for local populations.





ACCOUNTABILITY AND OVERSIGHT

Adequate oversight of transshipment within the West Africa region requires accountability from all the players involved.

A recent Stop Illegal Fishing report looked at the transshipment of tuna in the Western Indian Ocean and concluded that there is significant imbalance in accountability which results in lack of oversight¹. A few developing country port States are responsible to finance the monitoring of 90% of the catch as it is transhipped through their ports, mainly in transit, whilst the vessel's flag States, mainly European, do not pay for transshipment monitoring and are ultimately not monitored due to capacity limitations. In contrast, the IOTC regionally coordinated and independent observer programme that monitors at-sea transshipments provides a professional standard of monitoring and oversight for the 10% of at-sea transshipments – financed by the Asian flag States. Whilst this study used a different approach, it appears that the same imbalance in accountability is echoed in the FCWC region with the resultant skewing of oversight. This situation opens the door for flag States to voice support for strong in-port transshipment monitoring while knowing that due to capacity and financial limitations in the port States, implementation will be limited.

Flag States are accountable for ensuring that their vessels are correctly identified and marked, which is essential for transshipment monitoring. Consistent vessel identifiers are required, such as the IMO number, which should be displayed on the vessel itself, on all documentation and linked to electronic transmissions such as AIS. Many of the cases in this report demonstrate the challenges faced by port and coastal State MCS officials due to flag States not adequately implementing their responsibility in respect to vessel identification, resulting in reduced oversight.

It is not only State players that need to be accountable, but industry players should also provide transparency in respect to their ownership. An example is the use of joint venture agreements between several companies and/or possibly governments, which can be used to perpetrate illegal fishing and related offences by enabling foreign actors to access fisheries resources while remaining hidden behind the joint venture, avoiding any need to be accountable for illegal actions.

Actors representing non-governmental organisations (NGOs) need to be accountable to ensure that their support is transparent and driven by the needs and agenda of the country or region they are assisting. For example, research behind this report used AIS monitoring to understand transshipment dynamics and to provide case studies. This information can be validated to see if an encounter was illegal or not through secondary data that is provided by a flag, coastal and port State. This mutual accountability enables ground truthing of monitoring and ensures it is aligned to local priorities.

Accountability needs to be inclusive of all players and fully applied if oversight is to be balanced and comprehensive. All fisheries require oversight to ensure catch and effort data collection and the monitoring of compliance to both sustainability of stocks and that IUU fishing does not occur. When some players are less accountable than others, the monitoring of transshipment becomes skewed and less meaningful.

¹ Stop Illegal Fishing (2020): Moving Tuna: Transshipment in the Western Indian Ocean. Gaborone, Botswana.



CAPACITY AT CRITICAL POINTS

Fishery MCS capacity exists in all FCWC countries, but with limitations requiring countries to focus capacity on critical points that help to yield the most useful results. Setting priorities for targeting effort, including for monitoring transshipment can be guided by various factors, such as, national, regional or international policy, strategy or legislation, risk assessments, or the agendas of those paying for the monitoring.

Transshipment is a recognised critical point for monitoring catches and in the FCWC region this is mainly conducted in ports, often in connection with implementing port State measures. Ensuring that fisheries inspectors systematically gain access to the advanced request for entry into port (AREP) or other information notifying them that a fishing, reefer or factory vessel is due to arrive or has arrived is essential. This enables the fisheries inspectors to conduct a risk assessment and if necessary, arrange for an inspection. In some cases, more complex multi-agency inspections may be required, especially in the case of reefers.

Ensuring and requiring fishery inspectors to gain access to reefers and fishing vessels wherever they offload or tranship in ports is essential but often challenging given the complex nature of port structures with various docks and anchorages for different types of transshipment and offloading. For inspectors to reach anchorages, even if only a few 100 metres from the dock, requires a small craft to take the inspector to the fishing or reefer vessel, often these vessels are not available and transshipments at anchorages go unmonitored. Reefer offloads and containerisation often take place in different locations in the port, which are not always accessible to fisheries inspectors. If this initial opportunity to monitor fish being moved from the fishing vessel to a container or reefer is lost, there is unlikely to be another opportunity for a fisheries inspector to monitor that fish again within the FCWC region.

Many of these transshipment monitoring challenges are shared with the challenges being faced to implement port State measures, and they also include the issues related to nationally flagged vessels and to uncertainty around the responsibilities with previously landed fish.

Targeting MCS efforts at transshipment events is an efficient way to utilise critical points for MCS monitoring. However, as there is a great deal of transshipment of many types, involving many different fisheries and vessels there is a need for more human resource capacity – fisheries inspectors – in many FCWC ports to be able to conduct meaningful and comprehensive monitoring of transshipment. While training and mentoring are important for capacity growth, access to information about vessels arriving in port, improved access to all transshipment locations for inspectors, and better cooperation for interagency inspections are key areas for improvement.



IMPORTS VERSUS EXPORTS

The imbalance in the monitoring of fish imported into the FCWC region and that applied to exports needs consideration.

The region is an important market for receiving low value frozen or dried small pelagics or demersal fish species for consumption. While some of this fish has previously been landed and is arriving in containers or on reefers other fish arrives on fishing vessels, however very little of this fish is subjected to fisheries MCS checks. This is partly due to it having been previously landed but also because the consumers main concern is highly nutritious fish for a low cost rather than sustainability with the associated traceability issues. However, the IUU risk related to these fisheries is high, especially with products transhipped at sea outside of any monitoring such as near to Angolan or Mauritanian waters or in respect to competition and interplay with the artisanal fisheries, including the provision of fish to fishmeal factory vessels and on shore factories by artisanal fishers.

The main exports from the region are tuna to Europe, which may or may not have been caught in the FCWC EEZs and crustaceans and molluscs, generally processed. Although the region benefits very little from the tuna fishery in comparison to the small pelagics, there are high expectations due to demands by foreign consumers and RFMO requirements, that MCS for traceability is conducted for tuna landed or transhipped in FCWC ports. Interestingly, crustacean and molluscs which are also exported mainly to Europe, do not attract the same level of MCS expectation, which may be because they are not highly migratory and therefore, they do not fall under RFMO regimes but are managed locally.

Guidelines for the management and monitoring of transhipment would be useful if they take a holistic view that incorporates fish that is destined for consumption and export from the FCWC region. Management and monitoring aspects should not only focus on well-regulated fisheries or on fisheries where the end consumer demands sustainability and traceability. It will be important that they incorporate fish for local consumption, which may come from a range of sources, including fish caught within FCWC EEZs by small scale, locally and foreign flagged vessels, fish that is caught outside of the region and landed or transhipped within the region from fishing vessels, reefers or containers.



INFORMATION SHARING AND COOPERATION

Transshipment of fish, as demonstrated above, often involves great distances, a range of countries and jurisdictions and many different vessels. Transshipment also often takes place relatively quickly after arrival in port, providing a fisheries inspector with limited time to make judgements and decisions about which vessels to inspect and what to look out for. This decision making process is benefited and informed by the sharing and cross-checking of information – within a country, within a region and internationally.

Nationally, by systematically sharing information, the work of a fisheries inspector can become more effective. For example, if the fisheries, maritime, customs and port authorities have effective communication channels, they will all be aware about vessel movements and can cooperate in risk assessments. Having multiple agencies cooperating helps authorities to quickly clear compliant operators for fast transshipment and to target monitoring and inspection efforts on high-risk players.

Regionally, sharing information such as through the WATF has made significant improvements in countries ability to target monitoring efforts at vessels and operators with compliance issues or concerns. It has also helped in validating and cross-checking information provided to the authorities such as registration and licence documents with those provided to other countries. Regional cooperation also enables officials to request another country to conduct an inspection to cross-check and triangulate information, giving a fuller picture about activity in the region. Transshipment reporting to RFMOs is generally weak and provides limited helpful information to port State inspectors conducting inspections. This is an area that needs improvement and greater transparency.

Internationally, the FAO is leading efforts to develop guidelines for improving transshipment and its governance, and these will link closely to implementation of the PSMA, the Global Record and other instruments. Information sharing between countries outside of the region is facilitated by pan-African cooperation such as the sharing of information between task forces and international players under the African Ports Network or through bilateral cooperation. However, systematic cooperation and information sharing between port and flag States remains a challenge, hampering efforts to quickly obtain information for risk assessments.

Systematic, routine and ad-hoc information gathering and sharing, should be in place nationally, regionally and internationally in a way that is detailed enough to be useful but not overwhelming. Protocols and procedures are required and there are good examples for this including from the FCWC region, such as through the WATF and implementing a national interagency Ports Task Force in Ghana.





3.2 TRANSHIPMENT RESPONSES

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There are common threads running through the issues identified above and common solutions – such as the need for better and more inclusive accountability and information sharing and for holistic and ecosystem-based approaches to how we think about, regulate and monitor transshipment in the FCWC region.

The high value of fish and fish products imported and exported from the FCWC region have made transshipment and the role it plays in fisheries management and governance a priority area for investigation and action. FCWC’s work in fisheries management, and to address IUU more generally also feeds directly into transshipment responses.

As a result, the key responses of the FCWC to tackling the identified issues to stop illegal transshipment can be categorised under three main FCWC initiatives that have evolved over the last six years, one organically leading to the next and each contributing to better understanding of the issues:

- Firstly, the WATF which was formed in 2015 to strengthen and catalyse MCS cooperation in the region between the six member States.

- Secondly, transshipment was quickly identified as a challenge within the region for monitoring and potentially a high-risk activity enabling IUU fishing. This led to the 2017 regional strategy to combat illegal transshipment at sea², a key policy commitment by the FCWC Conference of Ministers.
- Thirdly, the Regional MCS Centre (RMCSC) established in 2020 to guide and support regional cooperation for MCS including implementing the regional transshipment strategy.

The following sections provide a brief overview on each of these responses.

² FCWC Strategy to Combat Illegal Transshipment at Sea <https://fcwc-fish.org/download/3089/institutional-documents/5582/fcwc-strategy-to-combat-illegal-transshipment-at-sea.pdf>



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THE WEST AFRICA TASK FORCE

The WATF has been operational for six years and it was established as a working group of the FCWC to bring together the six member States to tackle illegal fishing and stop trade in illegally caught fish. Inspired by the model of FISH-i Africa in East Africa, the WATF focuses on information sharing, and cooperative approaches to fighting illegal fishing in support of the FCWC agreements. The WATF members routinely share information on vessels active in the region, on high-risk vessels and operators, and they cooperate to receive operational MCS support and capacity building.

The FCWC Secretariat works in partnership with a Technical Team that includes TM-Tracking and Stop Illegal Fishing, with funding from Norad and this collaboration has proved a successful catalyst for cooperation, information sharing, and policy reform, including the at sea transshipment strategy. Prior to COVID-19, the Task Force met twice per year, providing an opportunity for building relationships, trust and understanding, and for creating contact points between agencies and countries within the region.

The shared WATF online communications platform has helped to enable confidential information to be shared easily, such as licence lists, port inspections, intelligence, publications or media reports, and it provides a space for discussion about ongoing investigations and to request information or assistance. This operational-level communication enables quick responses to requests for information and cooperation within the region and has been an important element in gathering information and supporting action in respect to transshipment – both at-sea and in-port.

Although the WATF focuses on industrial fisheries, by facilitating the sharing of national level information throughout the region; and, by cross-checking licence lists; by sharing VMS data and, by encouraging the move to make information publicly available, the WATF is actively promoting efforts to make governance of fisheries more inclusive of all players to support accountability across all fisheries of the region.



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THE FCWC TRANSHIPMENT STRATEGY

The strategy and its implementation plan aim to combat illegal transshipment at sea, through the promotion of a regional approach to transshipment. It establishes a common strategic approach to at-sea transshipment and acknowledges transshipment as a priority issue. Issues include shared fishery resources, shared fishing vessels that may be flagged to one country, licensed to fish in another and use the ports of a third, and shared reefers that service vessels licensed by many countries.

Unobserved transshipment makes it easier for vessels to breach their licence and authorisation conditions, fish without a licence, catch restricted species, under-report catches and avoid paying taxes. It also enables vessels to stay at sea for long periods of time, which is one of several factors linked to increased risk of labour abuse and human trafficking.

As transshipment at sea is banned in the EEZs of all WATF members it is important that the countries work together to improve the enforcement of these bans. If the bans are fully implemented it will help to increase compliance to licensing conditions, safety and sanitary requirements, and will also help to crack down on labour abuses at sea.

The strategy sets out requirements for improved monitoring and control of vessels involved in at-sea transshipment in the FCWC region. It promotes relevant controls such as mandatory VMS, AIS and IMO numbers for vessels. To date, region wide monitoring of reefer movements has identified many vessels' movement patterns that deviate from the expected norm of direct transit from port to port, and this has led to the understanding outlined in Section 2.

Strategies are required to operationalise the FCWC agreements related to IUU fishing and cooperative approaches to fighting illegal fishing. As transshipment at sea represents a major loophole in control systems that can facilitate illegal fishing and laundering of illegally caught fish, the at sea transshipment strategy is a key strategy that the WATF is working to implement.



THE REGIONAL MCS CENTRE

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The FCWC Regional Monitoring Control and Surveillance Centre (RMCS) is primarily providing coordination for improved regional monitoring of the activity of fishing vessels, reefers and support vessels in West Africa including monitoring of transshipment activity. It is also supporting and facilitating cooperation and information sharing between States and coordinating and delivering capacity building.

Current capacity to monitor fishing related activity in national EEZs is limited. The Centre will monitor all fishing vessels flagged or licensed by FCWC member States, on a regional VMS. This will give States without an existing VMS the opportunity to monitor vessels operating in their waters, and improve the ability to monitor the highly mobile fleet active in the FCWC region including transshipment activity.

The Centre will be able to combine VMS information from a regional system with AIS information, and other data. This will assist in monitoring the position, speed, direction and activity of registered fishing vessels and support vessels, and more broadly the tracking and monitoring of fishing activities across the region. It will also help facilitate regional cooperation including the planning and operation aspects of FCWC joint patrols and the targeting of in-port inspections within the region.

The RMCS is not a small undertaking for the region. It will take some years to develop procedures and systems to underpin the vision for regional cooperation and regional monitoring of fisheries. However, once this is achieved, the FCWC States will gain a fuller understanding about the dynamics of their fisheries – the fish, the fishers and the vessels – and with this knowledge be well positioned to drive more balanced, inclusive and home-focused fisheries governance, which will provide the basis for better transshipment oversight and management.

ACRONYMS AND ABBREVIATIONS

AIS	Automatic identification system	HDI	Human development index
AREP	Advanced request for entry into port	IATTC	Inter-American Tropical Tuna Commission
C188	ILO Work in Fishing Convention	ICCAT	The International Commission for the Conservation of Atlantic Tunas
CCAMLR	Convention on Conservation of Antarctic Marine Living Resources	ILO	International Labor Organization
CCBSP	Convention on the Conservation and Management of Pollock Resources in the Central Bering Sea	IMO	International Maritime Organization
CCSBT	Commission for the Conservation of Southern Bluefin Tuna	IOTC	Indian Ocean Tuna Commission
CECAF	Fishery Committee for the Eastern Central Atlantic	ITF	International Transport Workers' Federation
CNFC	China National Fisheries Corporation	IUU	Illegal, unreported and unregulated fishing
COMHAFAT-ATLAFCO	Ministerial Conference on Fisheries Cooperation Among African States Bordering the Atlantic	km	kilometre
CTA	IMO Cape Town Agreement	LDC	Least developed country
EEZ	Exclusive economic zone	LSPLV	Large scale pelagic longliner vessels
EJF	Environmental Justice Foundation	M	million
EU	European Union	MAEP	Ministry of Agriculture, Livestock and Fisheries, Benin
FAD	Fish aggregating device	MCS	Monitoring, control and surveillance
FAO	Food and Agriculture Organization	MOFAD	Ministry of Fisheries and Aquaculture Development, Ghana
FAOCA	FAO Compliance Agreement	MoU	Memorandum of understanding
FCWC	Fisheries Committee for the West Central Gulf of Guinea	MT	metric tonne
FMARD	Federal Ministry of Agriculture and Rural Development, Nigeria	NaFAA	National Fisheries and Aquaculture Authority, Liberia
FMFO	Fishmeal and fish oil	NAFO	Northwest Atlantic Fisheries Organization
FOC	Flag of convenience	NASCO	North Atlantic Salmon Conservation Organisation
GDP	Gross domestic product	NEAFC	North-East Atlantic Fisheries Commission
GFCM	General Fisheries Commission for the Mediterranean	NGO	Non-governmental Organisation
GFW	Global Fishing Watch	NIMASA	Nigerian Maritime Administration and Safety Agency
GT	Gross tonnage	nm	nautical mile
		PSMA	FAO Agreement on Port State Measures to Prevent, Deter and Eliminate IUU Fishing

RFAB	Regional fisheries advisory body
RFB	Regional fisheries body
RFMO	Regional fisheries management organisation
RMCS	Regional MCS Centre, FCWC
ROP	Regional observer programme
SEAFO	South-East Atlantic Fisheries Organisation
SIF	Stop Illegal Fishing
SIOFA	Southern Indian Ocean Fisheries Agreement
SPRFMO	South Pacific Regional Fisheries Management Organisation
t	tonnes
TEU	Twenty-foot equivalent unit
TMT	TM-Tracking
UK	United Kingdom
UNCLOS	UN Convention on the Law of the Sea
UNDP	UN Development Programme
UNFSA	UN Fish Stocks Agreement
USD	United States Dollar
VMS	Vessel monitoring system
WATF	West Africa Task Force
WCPFC	Western and Central Pacific Fisheries Commission
ZGSC	Zhongyu Global Seafood Corporation



SOURCES

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Norad

The West Africa Task Force brings together the six member countries of the FCWC – Benin, Côte d'Ivoire, Ghana, Liberia, Nigeria and Togo – to tackle illegal fishing and fisheries crime. The Task Force is hosted by the FCWC and supported by a Technical Team that includes TMT and Stop Illegal Fishing with funding from Norad. By actively cooperating, by sharing information and by supporting interagency working groups the West Africa Task Force is working together to stop illegal fishing.

For more information go to:

www.fcwc-fish.org