EUROPE – A MARKET FOR ILLEGAL SEAFOOD FROM WEST AFRICA:

The case of Ghana's industrial trawl sector







Protecting People and Planet

The Environmental Justice Foundation

(EJF) is a UK-based environmental and human rights charity registered in England and Wales (1088128).

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OUR MISSION

Protecting People and Planet

EJF believes environmental security is a human right.

EJF strives to:

- Protect the natural environment and the people and wildlife that depend upon it by linking environmental security, human rights and social need
- Create and implement solutions where they are needed most

 training local people and communities who are directly
 affected to investigate, expose and combat environmental
 degradation and associated human rights abuses
- Provide training in the latest video technologies, research and advocacy skills to document both the problems and solutions, working through the media to create public and political platforms for constructive change
- Raise international awareness of the issues our partners are working locally to resolve

Our Oceans Campaign

EJF's Oceans Campaign aims to protect the marine environment, its biodiversity and the livelihoods dependent upon it. We are working to eradicate illegal, unreported and unregulated fishing and to create full transparency and traceability within seafood supply chains and markets. We conduct detailed investigations into illegal, unsustainable and unethical practices and actively promote improvements to policy making, corporate governance and management of fisheries along with consumer activism and market-driven solutions.

EJF is working to secure sustainable, legal and ethical seafood.

Our ambition is to secure truly sustainable, well-managed fisheries and with this the conservation of marine biodiversity and ecosystems and the protection of human rights.

EJF believes that there must be greater equity in global fisheries to ensure developing countries and vulnerable communities are given fair access and support to sustainably manage their natural marine resources and the right to work in the seafood industry without suffering labour and human rights abuses.

We believe in working collaboratively with all stakeholders to achieve these goals.

For further information visit www.ejfoundation.org

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GLOSSARY

Beneficial owner	a natural person who ultimately owns or controls a legal entity or arrangement.
Bottom trawl	a method of fishing that involves towing a cone-shaped net along the seabed to target fish living close to or on the bottom.
Cephalopod	any marine mollusc of the class Cephalopoda including the cuttlefish, octopus and squid.
Demersal	term used to describe species that live on or near the seabed (demersal zone). Examples include flat fish, as well as groupers, snappers and cephalopods.
Juvenile	a fish that has not reached reproductive maturity.
Pelagic	term used to describe fish that live in the water column (pelagic zone), as opposed to near or on the seabed. Coastal pelagic fish include species such as anchovies and sardines.
Saiko	the local name for illegal fish trans-shipments in Ghana, where industrial trawlers transfer frozen fish to specially adapted canoes out at sea.

Executive summary

Introduction

This report looks at the linkages between the European seafood market and illegal practices in Ghana's industrial trawl sector.

In 2008, the European Union (EU) adopted Council Regulation (EC) No. 1005/2008 to prevent, deter and eliminate illegal, unreported and unregulated (IUU) fishing. The Regulation introduces a catch certification scheme to assist EU Member States in stemming the flow of illegally caught seafood to the EU market. This is supported by a system of warnings (yellow cards) and trade sanctions (red cards) for third (non-EU) countries that fail to comply with international standards for fisheries management and cooperate in the fight against IUU fishing.

The EU is Ghana's main market for fisheries exports, accounting for around 85% of the country's seafood export value in recent years¹. In 2018, the EU² imported 33,574 tonnes of fisheries products from Ghana, worth €157.3 million³. The vast majority of these imports involved processed and unprocessed tuna products.

A number of Ghana-flagged industrial trawlers, with licences to catch demersal species such as snappers and cephalopods, are authorised under EU health legislation to export fisheries products to the EU market. Each year, Ghana's industrial trawl fleet exports between 2,000 and 3,500 tonnes of cuttlefish, octopus and squid to the EU, primarily to Portugal, Italy and Spain, worth around €10 million⁴.

While exports from the industrial trawl fleet represent less than 10% of total seafood trade from Ghana to the EU, the activities of these vessels are having a disproportionate impact, driving the collapse of Ghana's coastal fisheries⁵.

In 2013, Ghana received a yellow card warning under the EU IUU Regulation for failing to discharge its obligations under international law to control the activities of its vessels, sustainably manage fish populations within its waters and prevent access of fisheries products stemming from IUU fishing to its market⁶. The yellow card was lifted in October 2015⁷ in recognition of widespread reforms, although progress has since stalled in several areas⁸.

Illegal practices in Ghana's industrial trawl fleet and impacts on local communities

Ghana's marine fisheries are a primary source of income for 186 coastal villages⁹, providing livelihoods for over 2.7 million people¹⁰ and food security for the nation. However, fish populations are in steep decline, with imports now making up around half of Ghana's domestic fish consumption¹¹. Over the past two decades, incomes of local fishers have also declined¹², with increasing numbers of fishers returning from sea with no catch¹³. Scientists have predicted the collapse of Ghana's small pelagic fishery—the mainstay of the artisanal fishing sector—in less than five years if current trends continue¹⁴.

In recent years, industrial trawlers have engaged in widespread illegal fishing in Ghana, including the illegal targeting of small pelagic species for a trade known locally as "saiko" Saiko involves the illegal trans-shipment of fish from trawlers to specially adapted canoes out at sea for onward sale on local markets. Much of the fish traded are juveniles, fuelling the rapid decline of Ghana's small pelagic fishery. Despite being prohibited under Ghanaian law, saiko fishing has expanded rapidly over the past decade, putting livelihoods and food security at risk.

Currently, 72 industrial trawlers are licensed to fish in Ghana's waters¹⁸, the vast majority of which–an estimated 90% –are beneficially owned¹⁹ by Chinese corporations²⁰. To circumvent a legal prohibition against foreign involvement in the trawl sector²¹, operators set up opaque corporate structures to gain access to Ghana's fisheries on local licences²². The result is a complete lack of transparency as to who owns and controls vessels operating in Ghana's severely depleted coastal waters, confounding attempts to identify the true beneficiaries of illegal activities and ensure those individuals are held to account.

The information presented in this report is indicative of a high risk that seafood caught by, or in association with, illegal fishing practices continues to enter the EU market.

According to this research, industrial trawlers that are authorised to export seafood to the EU have been implicated in the illegal saiko trade and other forms of illegal fishing.

How illegal practices and overfishing are sustained by export opportunities to the EU market

The information presented in this report is indicative of a high risk that seafood caught by, or in association with, illegal fishing practices continues to enter the EU market. There is evidence of systemic illegalities in Ghana's industrial trawl sector which, alongside a severe lack of transparency, impede Ghana's ability to sustainably manage its marine fisheries and discharge its obligations under international fisheries law.

According to this research, industrial trawlers that are authorised to export seafood to the EU have been implicated in the illegal saiko trade and other forms of illegal fishing. While Ghana's tuna sector accounts for the greater proportion of seafood trade to the EU, there are strong links between the country's trawl and tuna sectors. This study found that industrial trawlers with a record of IUU fishing—including a trawler fined a record US\$1 million for illegal fishing in 2019—are linked to the same beneficial owners as tuna vessels authorised to export seafood to the EU.

This study raises further questions regarding non-compliance of vessel operations with Ghana's laws on foreign investment and nationality of beneficial ownership. The vast majority of Ghanaian-flagged trawlers are linked to Chinese beneficial owners, in spite of a prohibition on foreign involvement in Ghana's trawl sector.

Trawlers operating under the Ghanaian flag have also been implicated in alleged human rights abuses and labour violations at sea, including potential cases of forced labour. Allegations include physical violence directed at crew members, absence of employment contracts for workers, poor living and working conditions on board the vessels, and blacklisting of workers attempting to form and join trade unions to protect their interests²³.

In addition, irregularities have been identified in relation to EU health requirements, with products apparently routed via China and imported to the EU as products of Chinese rather than Ghanaian origin. The lack of traceability in supply chains may mean that, in reality, considerably more products from Ghana's trawl fishery are finding their way to the EU market.

As a market for seafood caught by the Ghana-flagged trawl fleet, EU consumers are inadvertently supporting illegal practices and severe overfishing in Ghana's waters. This is having devastating impacts on local fishing communities, and the 2.7 million people in Ghana that rely on marine fisheries for their livelihoods.

Given the severity of impacts of illegal fishing on Ghana's coastal communities and marine resources, it is critical that European industry, the European Commission and Member States undertake detailed scrutiny of seafood imports from Ghana to ensure products caught by, or in association with, illegal practices are blocked from entering the EU market.

It is imperative that all Member States implement rigorous and effective import controls under the EU IUU Regulation. While the recent development of the EU-wide IT database (CATCH) is a welcome step towards the harmonisation of controls for wild-caught fisheries products at EU borders, it is important that the system's use by Member States be made mandatory. The European Commission should also endeavour to enhance CATCH's risk analyses capability to ensure illegally-caught fishery products imported from third countries are effectively barred from entering the EU market.

As a market for seafood caught by the Ghana-flagged trawl fleet, EU consumers are inadvertently supporting these illegal practices and severe overfishing in Ghana's waters. This has potentially devastating implications for local fishing communities, and the 2.7 million people in Ghana that rely on marine fisheries for their livelihoods.



Action from all stakeholders, including the EU as a market state, is urgently required to end the destructive illegal fishing practice known as saiko and bring the activities of Ghana's industrial trawl fleet into line with national and international law.



Recommendations

Action from all stakeholders, including the EU as a market state, is urgently required to end the destructive illegal fishing practice known as saiko and bring the activities of Ghana's industrial trawl fleet into line with national and international law. Improving transparency in the sector, in accordance with EJF's ten principles for global transparency in the fishing industry²⁴, is critical to eliminating IUU fishing and other illegal practices and averting the collapse of Ghana's fisheries.

Below are concrete and actionable recommendations to address the ongoing crisis in Ghana's fisheries sector. Further recommendations targeted at the governments of Ghana and China are set out in detail in previous EJF reports²⁵.

To the Government of Ghana:

- 1. Ensure the effective, consistent and transparent enforcement of the law and imposition of sanctions of sufficient severity to prevent, deter and eliminate IUU fishing, including the suspension and withdrawal of licences for repeat offenders.
- 2. Take urgent action to bring a permanent end to illegal saiko fishing, in line with the government's commitment in the 2020 Budget Statement and Economic Policy.
- 3. Scrutinise, in detail, publishing the results, the ownership arrangements of all industrial trawl vessels currently operating in Ghana to ensure compliance with requirements regarding the nationality of beneficial owners set out in the 2002 Fisheries Act, and that all aspects of their operations are carried out legally.
- 4. Adopt all necessary measures, including a reduction in the number of licensed trawlers and fishing days, and implementation of closed seasons, to ensure the fishing effort of the industrial trawl fleet is brought down to sustainable levels.
- 5. In the interests of transparent and accountable decision-making, make publicly available and maintain updated key fisheries-related information, including IUU fishing infringements and sanctions imposed/paid, licences and authorisations for fishing activities, allocated fishing days and reported catches, and details of vessel beneficial ownership.

To the European Union:

- 1. Cooperate with the government of Ghana through the EU-Ghana IUU Working Group established after the lifting of the yellow card to address illegal and destructive fishing practices, with a specific focus on ending saiko and improving transparency in Ghana's industrial fishing sector.
- 2. Be prepared to use all tools foreseen under the EU IUU Regulation if it is demonstrated that Ghana has failed to discharge its duties under international law as flag, port, coastal or market state and to remedy this situation as envisaged in Commissioner Sinkevičius' mission letter²⁶.
- 3. Bring, through the appropriate channels, IUU fishing risks to the attention of EU Member States, particularly Portugal, Italy and Spain, which receive the majority of cephalopod imports from Ghana, and require them to increase scrutiny of fisheries imports stemming from Ghana's trawl sector.
- 4. Bring, through the appropriate channels, risks of IUU fishing and potential trade diversion to the attention of other EU Member States, such as France, Germany and the Netherlands, as well as the United Kingdom, which are major importers of tuna products from the country.
- 5. Use the information gathered from EU Member States' verifications to best orient the actions under the auspices of the EU-Ghana IUU Working Group.
- 6. Bring IUU fishing risks to the attention of importers and other relevant seafood businesses in the EU, particularly in the Member States mentioned above.

- 7. Cooperate with the governments of Ghana and China to ensure industrial trawlers exporting catches to the EU comply with EU health requirements, as well as local laws on beneficial ownership and foreign investment, and international human rights and labour standards.
- 8. Promote the implementation of the EU IUU Regulation catch certificate IT system (CATCH) and make it mandatory for EU Member States as stated in the Commission's proposal for the revision of the Control Regulation²⁷. Encourage the swift adoption of more comprehensive risk criteria and seamless data cross-checks during the next iterations of the CATCH IT system.
- 9. Ensure application of standardised risk analysis criteria and procedures for the verification of high-risk catch certificates and inspection of consignments, taking into account best practices currently implemented in the EU.

To the EU Member States:

- Increase scrutiny of fisheries imports from Ghana, particularly those stemming from its trawl sector, through standardised verification and inspection procedures in accordance with risk criteria under the EU IUU Regulation catch certification scheme, making full use of the provisions under Article 17 of the EU IUU Regulation.
- 2. Request all relevant data, particularly from vessel monitoring systems, for all fishing activities of industrial trawlers operating under the Ghanaian flag through the catch certificate verification process to ensure compliance with relevant laws and management measures.
- 3. Reject consignments of seafood where there is evidence to suggest non-compliance with applicable laws and management measures such as saiko.
- 4. Involve the European Commission in, and promptly report to its services, any actions taken under Articles 17 and 18 of the EU IUU Regulation for the institution to take them into consideration in the context of the EU-Ghana IUU Working Group.
- 5. Scrutinise the provenance of exports of demersal species originating from China to ensure compliance with the EU IUU Regulation and EU health rules.
- 6. Support the mandatory introduction of CATCH and look to adopt the system at the earliest possible date, so as to ensure its effectiveness.
- 7. Support the implementation of a standardised EU-wide approach to risk analysis through CATCH, ensuring it is effectively applied in the detection of high-risk catch certificates/consignments.

To EU industry:

- 1. Scrutinise supply chains connected to the Ghanaian industrial fishing fleet and implement robust due diligence measures²⁸ to identify and address IUU fishing, human rights and labour risks.
- 2. Demand sufficient data on sourcing vessels to ensure no vessel with a history of committing IUU fishing, human rights abuses or labour violations can enter supply chains.
- 3. Implement due diligence measures to reduce the risk of supplying IUU seafood or products tainted by human rights abuses. Guidance for doing this is provided in the PAS 1550 Code of Conduct.
- 4. To make due diligence measures more efficient and effective, support the adoption of the transparency measures set out in EJF's Charter for Transparency.
- 5. Adopt a zero-tolerance approach to human rights abuses, labour rights violations and IUU fishing where they are detected.

1. Introduction

Council Regulation (EC) No. 1005/2008²⁹ entered into force in January 2010 with the aim of addressing illegal, unreported and unregulated (IUU) fishing globally and preventing the import of illegally caught fisheries products into the EU market. Prior to the adoption of the EU IUU Regulation in 2008, approximately 500,000 tonnes of illegal fisheries imports were estimated as entering the EU annually, to a value of approximately €1.1 billion³⁰.

The EU IUU Regulation requires operators to present a catch certificate for the import of seafood from third (non-EU) countries into the EU. Catch certificates must be validated by the flag state of the catching vessel, attesting that the seafood was caught in accordance with relevant laws and management measures. On the importing side, EU Member States are required to check and potentially verify the information in the catch certificates they receive based on the risk that the consignment concerned stems from IUU fishing activities³¹. Since 2010, Member States have refused the import of over 400 consignments of seafood under the EU IUU Regulation and carried out over 1,000 flag state verifications annually to confirm the legality of seafood destined for the EU market³².

The catch certification scheme is complemented by a procedure to identify third countries as non-cooperating in the fight against IUU fishing (the 'carding' process). As part of this process, countries may be pre-identified (yellow-carded) and, as a last resort, identified (red-carded) by the European Commission for failing to meet international standards for fisheries management and cooperate in the fight against IUU fishing. From the date of the Commission's decision to red card a third country, the importation of products caught by the carded country's vessels to the EU is prohibited³³.

To date, the EU has initiated dialogue with more than 50 third countries seeking improvements in measures to combat IUU fishing. Most countries in dialogue with the EU have undertaken the required reforms without the need for an official warning. At the time of writing, 26 countries have been issued with yellow cards under the Regulation, of which six have received red cards for failing to undertake reforms or take them in a timely manner³⁴. Sixteen countries have carried out fisheries management reforms to address identified shortcomings and have had their yellow or red cards revoked/lifted (green-carded). One country, Panama, has been re-issued with a yellow card following a failure to sustain the improvements made.

While the EU IUU Regulation has had far-reaching impacts in the fight against illegal fishing³⁵, concerns remain that products stemming from illegal fishing continue to enter the EU market. Studies have highlighted the uneven implementation of import controls across the EU, potentially resulting in the diversion of high-risk trade flows to Member States with weaker controls, and leaving the system open to abuse³⁶.

This report looks at imports from one country, Ghana, to demonstrate how seafood caught through illegal and destructive fishing practices continues to find its way onto the EU market. The report focuses specifically on the linkages between the EU seafood market and illegal practices in Ghana's industrial trawl sector.

Ghana received a yellow card warning under the EU IUU Regulation in November 2013 for failing to discharge its obligations under international law to combat IUU fishing and sustainably manage the fisheries resources within its Exclusive Economic Zone (EEZ).



Image of an industrial trawler captured by a local canoe fisher in Ghana.

The European Commission's decision to pre-identify Ghana under the EU IUU Regulation cited shortcomings including³⁷:

- Failure to apply deterrent sanctions foreseen in the legislation with respect to IUU fishing infringements.
- Failure to prevent the registration of IUU fishing vessels under its flag.
- Failure to detect recurrent violations of international and national fisheries rules.
- Failure to take appropriate measures to prevent IUU seafood from being landed at its ports and entering its supply chains.
- Repeated infringements by Ghanaian-flagged vessels of regional conservation and management measures, including a ban on trans-shipment at sea.
- Inadequate measures to reduce the number of industrial vessels operating in Ghanaian waters in line with monitoring, control and surveillance (MCS) and enforcement capacity.
- Overfishing of resources in the area managed by the International Commission for the Conservation of Atlantic Tunas (ICCAT) and over-capacity in the Ghanaian-flagged tuna fleet.

The yellow card prompted a range of improvements in fisheries management and MCS leading to the lifting of the yellow card in October 2015³⁸. These reforms included:

- Adoption of revised legislation to strengthen the legal framework and introduce dissuasive sanctions ranging from US\$1-4 million³⁹.
- Adoption of a fisheries management plan for the period 2015-2019 setting out measures to reduce capacity and fishing effort in the industrial and artisanal fishing sectors⁴⁰.
- Adoption of a National Plan of Action (NPOA) to fight IUU fishing⁴¹.
- Creation of a fisheries enforcement unit and related investments to ensure effective MCS.
- Implementation of a mandatory vessel monitoring system (VMS) requirement for vessels fishing within Ghanaian waters, and for Ghanaian-flagged vessels fishing in external waters.

However, in the years following the lifting of the yellow card, concerns have emerged regarding implementation of these policies and continued shortcomings in addressing illegal fishing and over-capacity, specifically in relation to the country's industrial trawl sector⁴².

While the 2014 Fisheries (Amendment) Act 880 introduced a deterrent sanctioning regime for fisheries-related infringements, the minimum fine of US\$1 million has been rarely applied in practice. Fines are often imposed at well below the statutory minimum through opaque out of court settlement processes⁴³, and in some cases go unpaid⁴⁴.

In October 2019, a trawler was fined US\$1 million for IUU fishing in a landmark case⁴⁵. However, by January 2020, the fine had not been paid and the vessel was back fishing in the waters of Ghana and Côte d'Ivoire⁴⁶. The vessel was arrested again for illegal fishing offences in May 2020⁴⁷.

New trawlers continue to arrive in Ghana, in spite of widespread illegal fishing and over-exploitation resulting in the severe depletion of stocks. 72 trawlers are currently licensed to fish in Ghana's waters⁴⁸, above the recommended target of 48 trawlers in the Fisheries Management Plan for 2015-2019⁴⁹. Although the number of trawlers has decreased since 2015, studies suggest an effective increase in fishing effort over the same period⁵⁰. Recently, three new industrial trawlers were registered to the Ghanaian flag and are awaiting licensing at Tema port, in spite of a government moratorium on new fishing licences⁵¹. The licence list is not published routinely on the website of the Ministry for Fisheries and Aquaculture Development, precluding external scrutiny of the number of licences⁵².

This report is structured as follows. **Section 2** provides an overview of the EU market for seafood products from Ghana and, in particular, from the Ghana-flagged industrial trawl fleet. **Section 3** sets out evidence of systemic illegalities in Ghana's industrial trawl sector, namely the destructive form of illegal fishing known locally as "saiko" and foreign beneficial ownership of trawlers flying the Ghanaian flag. **Section 4** provides examples of specific cases of alleged and confirmed illegal fishing involving trawlers authorised to export fisheries products to the EU market. **Sections 5 and 6** set out conclusions and recommendations for actions by the European Union, the EU Member States and EU industry players to help address the issues identified.



A trawler previously flagged to China and now registered to the Ghanaian flag awaits licensing at Tema port.

2. The EU market for seafood products from Ghana's industrial trawl fleet

The EU is Ghana's main market for fisheries exports, accounting for around 85% of the country's seafood export value in recent years⁵³. In 2018, the EU imported 33,574 tonnes of fisheries products from Ghana, worth €157.3 million⁵⁴ (**Figure 1**). The vast majority of these imports involved processed and unprocessed tuna products.

A number of Ghana-flagged industrial trawlers, with licences to catch demersal species such as snappers and cephalopods, are authorised under EU health legislation to export fisheries products to the EU market. Each year, Ghana's industrial trawl fleet exports between 2,000 and 3,500 tonnes of cuttlefish, octopus and squid to the EU, primarily to Portugal, Italy and Spain, worth around €10 million (**Figure 2**)⁵⁵. As a proportion of exports appear to be routed via China (**Box 1**), it is likely that this figure is higher⁵⁶.

Although exports from the industrial trawl fleet represent less than 10% of total seafood trade from Ghana to the EU, the activities of these vessels are having a disproportionate impact, driving the collapse

of Ghana's coastal fisheries⁵⁷. There are also strong links between the country's trawl and tuna sectors, the latter accounting for a greater proportion of seafood trade to the EU. In some cases, the same beneficial owners control both trawl and tuna vessels (see **Sections 3.1** and **4** below).



An industrial trawler operating under the Ghanaian flag and authorised to export seafood to the EU under EU health legislation. It is one of 72 industrial trawlers currently licensed to fish in Ghana's waters.



Table 1: Imports of fisheries products* from Ghana reported by the EU Member States and the United Kingdom (2018)

	Volume (tonnes)	Value (EUR, millions)
United Kingdom	12,112	57.6
France	7,860	40.5
Italy	3,875	18.8
Netherlands	3,397	14.1
Germany	3,006	10.9
Spain	1,374	5.1
Portugal	1,191	7.4
Rest of EU	759	3.0
Total	33,574	157.3

Source: Eurostat

Note: * Reported under chapter 03 and sub-headings 1604 and 1605, of the World Customs Organization Harmonized System.

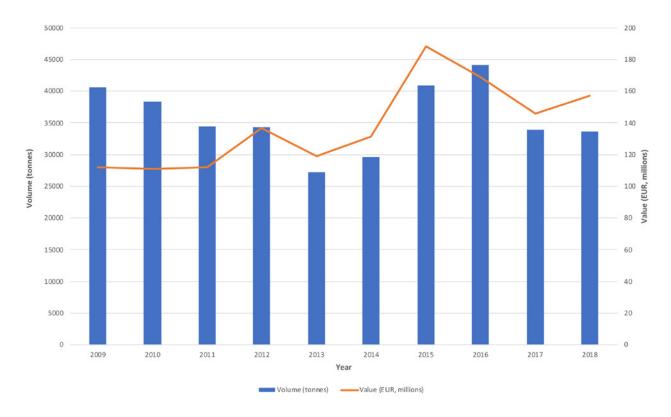
Table 2: Imports of cephalopods* from Ghana reported by the EU Member States and the United Kingdom (2018)

	Volume (tonnes)	Value (EUR, millions)
Portugal	897	5.46
Italy	660	4.70
Spain	588	3.18
Rest of EU	42	0.30
Total	2,186	13.6

Source: Eurostat

Note: * Reported under sub-heading 0307, of the World Customs Organization Harmonized System.

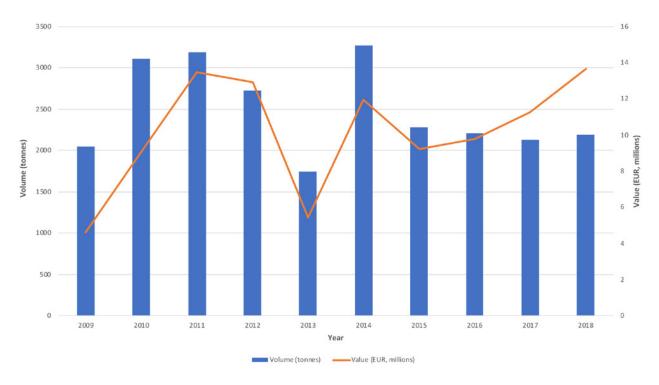
Figure 1: Imports of fisheries products from Ghana reported by the EU Member States and the United Kingdom (2009-2018)*



Source: Eurostat

 $Note: *Reported under chapter O 3 \ and \ sub-headings 1604 \ and 1605, of the World Customs \ Organization \ Harmonized \ System.$

Figure 2: Imports of cephalopod* products from Ghana reported by the EU Member States and the United Kingdom (2009-2018)



Source: Eurostat

Note: *Reported under sub-heading 0307 of the World Customs Organization Harmonized System

Fishing vessels must be authorised under EU health legislation in order to be allowed to export seafood to the EU market. Currently, thirteen industrial trawlers operating under the Ghanaian flag appear on Ghana's list of authorised establishments for fisheries exports to the EU (**Table 3**)⁵⁸.

Once authorised to export fisheries products to the EU market, fishing vessels should appear in their flag state's list of authorised establishments under EU health legislation⁵⁹. However, nine trawlers operating under

the Ghanaian flag appeared in China's list of authorised establishments up until the end of 2019⁶⁰ (**Box 1**).

The presence of Ghanaian-flagged vessels in China's list of authorised establishments under EU health legislation raises the question of potential 'double flagging' of these vessels to both Ghana and China⁶¹. The lack of traceability in supply chains may also mean that, in reality, considerably more products from Ghana's trawl fishery are finding their way to the EU market as products of Chinese rather than Ghanaian origin.



An industrial trawler operating in Ghana's waters. The image was taken by a local canoe fisher during a fishing trip in February 2020.

Table 3: Ghanaian-flagged trawlers authorised to export catches to the EU

Approval number	Name of vessel	Date of request
GS/SF/E096	Adum	27/08/2012
GS/SF/E097	Asona	27/08/2012
GS/SF/E021	LONG XIAN 601	07/11/2016
GS/SF/Eo38	LONG XIAN 602	07/11/2016
GS/SF/E082	LONG XIAN 603	15/02/2018
GS/SF/E024	LONG XIAN 606	07/11/2016
GS/SF/E012	LONG XIAN 607	07/11/2016
GS/SF/E048	LONG XIAN 608	07/11/2016
GS/SF/E018	LONG XIAN 609	07/11/2016
GS/SF/E101	Sapele	
GS/SF/E102	Tormabum	
GS/SF/E115	Zhong Lu Yu 1003	01/08/2008
GS/SF/E116	Zhong Lu Yu 1004	01/08/2008

 $Source: European\ Commission\ (18.08.19),\ 'Non-EU\ Countries\ Authorised\ Establishments,\ Ghana,\ Fishery\ Products',\ accessed\ 9.7.20.$ $https://webgate.ec.europa.eu/sanco/traces/output/GH/FFP_GH_en.pdf$

Box 1: Ghanaian-flagged trawlers in China's list of authorised establishments for fisheries product exports to the EU

Until the end of 2019, the Ghana-flagged trawlers, LU RONG YUAN YU 906, 907, 908, 910, 916, 917, 918, 919, and 920, appeared in China's list of authorised establishments for fisheries product exports to the EU, as opposed to the list for Ghana as flag state⁶².

China's list of authorised establishments cited the vessels as owned by Chinese company Rongcheng Marine Fishery Co. Ltd⁶³. Other sources, including China's list of vessels for overseas inspection⁶⁴ and the website of Rongcheng Marine Fishery Co. Ltd⁶⁵, appear to confirm the company as the owner of the vessels, despite Ghana's laws prohibiting foreign involvement in the country's trawl sector (see **Section 3.2** below). In Ghana's licence list, the vessels are registered to seven different local companies (see **Table 4** below)⁶⁶.



Image of an industrial trawler, the LU RONG YUAN YU 920, captured by artisanal fishers using a geotagged camera provided by EJF. Until 2019, the vessel was authorised to export seafood products to the European Union. In December 2018, the vessel was filmed by an EJF film crew allegedly carrying out a saiko transshipment at sea off the coast of Elmina.

Table 4: Inclusion of Ghanaian-flagged trawlers in China's list of establishments authorised to export fisheries products to the EU⁶⁷

EU list of autho	rised establish	ments for Cl	nina*	Ghana licence list for industrial trawlers**			
Name	City / Region	Activities	Date of request	Name in licence list	Licence holder	IMO number	Licence
LURONGYUANYU 917 (RongCheng Marine Fisheries CO., LTD)	Rongchang / Shandong	ZV	07/12/17	LU RONG YUAN YU 917	MYSTICAL GRACE CO. LTD.	8673906	Current (June 2020)
LURONGYUANYU 916 (RongCheng Marine Fisheries CO., LTD)	Rongchang / Shandong	ZV	07/12/17	LU RONG YUAN YU 916	REONQ FISHERIES CO. LTD.	8673891	Current (June 2020)
LURONGYUANYU 910 (RongCheng Marine Fisheries CO., LTD)	Rongchang / Shandong	ZV	07/12/17	LU RONG YUAN YU 910	REONQ FISHERIES CO. LTD.	8673889	Current (June 2020)
LURONGYUANYU 918 (RongCheng Marine Fisheries CO., LTD)	Rongchang / Shandong	ZV	07/12/17	LU RONG YUAN YU 918	GAINSVILLE VENTURES LTD.	8673918	Current (June 2020)
LURONGYUANYU 919 (RongCheng Marine Fisheries CO., LTD)	Rongchang / Shandong	ZV	07/12/17	LU RONG YUAN YU 919	CONNADO ENT. LTD.	8673920	Up to 2018
LURONGYUANYU 920 (RongCheng Marine Fisheries CO., LTD)	Rongchang / Shandong	ZV	07/12/17	LU RONG YUAN YU 920	NYAME DOME COLDSTORE LTD.	8673932	Current (June 2020)
Lu Rong Yuan Yu 906 (RongCheng Marine Fisheries Co., Ltd)	Rongchang / Shandong	ZV	29/08/13	LU RONG YUAN YU 906	DANAC FISHERIES LTD.	8683640	Current (June 2020)
Lu Rong Yuan Yu 907 (RongCheng Marine Fisheries Co., Ltd)	Rongchang / Shandong	ZV	29/08/13	LU RONG YUAN YU 907	DANAC FISHERIES LTD.	8683652	Current (June 2020)
Lu Rong Yuan Yu 908 (RongCheng Marine Fisheries Co., Ltd)	Rongchang / Shandong	ZV	29/08/13	LU RONG YUAN YU 908	MOVELLE CO. LTD.	8697994	Current (June 2020)

Abbreviations: ZV - freezing vessel

Notes

According to a representative of Shandong Bodelong Group Co. Ltd, the parent company of Rongcheng Marine Fishery Co. Ltd, frozen octopus caught by the company's vessels in Ghana (see below) is exported first to China for subsequent re-export to the EU:

"We can't export to France from Ghana without EU [registration], [b]ut we can do it from China to EU. Since most of our octopus have alreay [sic.] shipped back to China, we have [them in] storage in China now."68



Product described as 'African frozen trawling octopus' frozen and packaged for export from the Ghanaian company SANTA FISHERIES GHANA LTD © Shandong Bodelong Group Co. Ltd on Alibaba.com

^{*} European Commission (15.1.19), 'Non-EU Countries Authorised Establishments, China, Fishery Products', accessed 11.6.19. https://webgate.ec.europa.eu/sanco/traces/output/CN/FFP_CN_en.pdf

^{**} Republic of Ghana, MoFAD, 'Vessel Registry', https://www.mofad.gov.gh/publications/statistics-and-reports/vessel-registry/, accessed 23.3.18 and 4.6.20.

3. Systemic illegalities in Ghana's industrial trawl sector

3.1. The illegal fishing practice known as 'saiko'

Ghana's marine fisheries are a primary source of income for 186 coastal villages⁶⁹, providing livelihoods for over 2.7 million people⁷⁰ and food security for the nation. However, fish populations are in steep decline, with imports now making up around half of Ghana's domestic fish consumption⁷¹. Over the past two decades, incomes of local fishers have also declined⁷², with increasing numbers of fishers returning from sea with no catch⁷³. Scientists have predicted the collapse of Ghana's small pelagic fishery–the mainstay of the artisanal fishing sector–in less than five years if current trends continue⁷⁴.

Recent years have seen an increase in the illegal and highly destructive practice known locally in Ghana as 'saiko'⁷⁵. While industrial trawlers in Ghana are licensed to fish for demersal species such as octopus, saiko involves these vessels illegally targeting small pelagic species such as sardinella (**Box 2**)-the staple catch of artisanal fishers-for trans-shipment at sea to specially adapted canoes. The catches, which often include large numbers of juvenile fish that are critical to rebuilding the fishery⁷⁶ (**Box 3**), are then landed and sold back to fishing communities for profit.

Saiko is prohibited under Ghana's fisheries laws, attracting a fine of between US\$100,000 and US\$2 million⁷⁷. The minimum fine increases to US\$1 million where catches involve juvenile fish or the use of prohibited fishing gears⁷⁸ (**Box 4**).

Investigations by EJF suggest that saiko activities are widespread in Ghana's industrial trawl sector? In 2017, an estimated 100,000 metric tonnes of fish were traded illegally through saiko, with an estimated landed value of between US\$52.7 and US\$81.1 million80. Ghanaian-flagged trawlers caught approximately 167,000 metric tonnes of fish in 2017, when illegal and unreported catches are taken into account (**Figure 3**). This suggests that just 40% of catches were landed legally and reported to the Fisheries Commission in 2017. From January to June 2020, over 300 saiko canoes landed fish illegally at Elmina port, the main hub for saiko landings on Ghana's coast81.

Saiko has severe implications for Ghana's artisanal fishing sector and the livelihoods of coastal communities. As fishing communities have seen their catches and incomes plummet, industrial trawlers have been observed landing small pelagics in significant quantities⁸² (**Boxes 2-4**). In 2017, Ghana's industrial trawl fleet of around 75 vessels landed almost the same amount of fish as the entire artisanal sector of 11,000 canoes or over 100,000 fishers⁸³ (**Figure 3**).



200,000 180,000 160,000 Saiko landings Reported Catches in metric tonnes 140,000 (estimate, landings unreported) 120,000 100,000 80,000 60,000 Reported landings 40,000 20,000 Trawlers Canoes

Figure 3: Landings of the industrial trawl and artisanal sectors in 2017

Notes:

- · Reported landings for the trawl and artisanal sectors are derived from the annual report of the Fisheries Commission for 2017 (unpublished)
- · Estimate of unreported catches for the industrial trawl fleet excludes discards and other unreported catches.
- Artisanal landings do not include unreported catches not captured in official statistics.

Box 2: Saiko and the collapse of Ghana's small pelagic fishery

Small pelagic species, such as sardinella, anchovy and mackerel, are in high demand on local markets⁸⁴. The illegal saiko trade offers a route to market for these catches, incentivising trawlers to target small pelagics and not only the demersal species, such as snappers and cephalopods, for which they are licensed.

In September 2019 and January 2020, EJF conducted interviews with ten crewmembers and three fisheries observers working on-board the Ghana-flagged trawl fleet. Respondents reported the use of illegal nets to target small pelagic species for the saiko trade. According to respondents, trawl nets are lined with illegal small mesh 'inner sacks', resulting in the capture of small pelagics and under-sized (juvenile) fish of various species⁸⁵. While the vessels are licensed to fish as bottom trawlers, in addition to bottom trawl nets, the vessels also deploy pelagic trawl nets to target fish living in the mid-water column and near the sea surface⁸⁶.

"The nets that we trawl with are the bigger size mesh nets but the captain wants to catch plenty fish so he puts small mesh size nets into it."

Ghanaian crewmember #1, industrial trawler

"The pelagic net catches salmone [mackerel], anchovies, sardinella and some other small small [sic.] fishes. The pelagic net is big so we have inner sack that we insert into the pelagic net, which helps us. The eye space of the net is too small, so if they found out at the harbour, they will seize it. So we hide it inside the hatch when we are reporting to the shore."

Ghanaian crewmember #2, industrial trawler

"We have the approved net to be 60 mm in measurement. But some of them don't use those nets – they use mesh which is less than the 60 mm... If they use those nets, the fingerlings [juvenile fish] will not be able to go out. So, by the end of the day, they will bring [catch] everything."⁸⁷

Fisheries observer #1, industrial trawler88

Saiko is driving Ghana's small pelagic fishery–known as the 'people's fish' due to its role in livelihood provision-to the brink of collapse. Scientists predict the collapse of Ghana's small pelagic fishery in less than five years in the absence of ambitious management interventions⁸⁹.

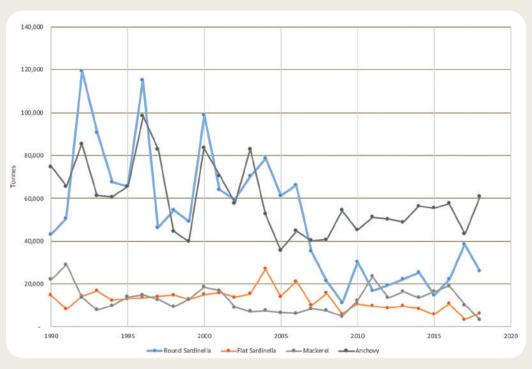


Figure 4: Small pelagic landings by major species (1990-2018, metric tonnes)

Source: Scientific and Technical Working Group (STWG) (2019, unpublished)

Landings of sardinella have declined by around 80% over the past two decades, from 135,628 metric tonnes in 1996, to 29,111 tonnes in 2016. A recent assessment by the United Nations Food and Agriculture Organization (FAO) recommended the closure of the sardinella fishery shared between Côte d'Ivoire, Ghana, Togo and Benin to allow fish populations to recover⁹⁰. Yet, in spite of these warnings, industrial trawlers continue to illegally target and land juvenile sardinella in significant quantities (**Boxes 3 and 4**).

Box 3: Results of analyses of by-catch landed by Ghana's industrial trawl fleet

Since mid-2018, EJF has been analysing blocks of saiko fish landed at Elmina port to assess species composition and presence of juveniles against length at maturity indices. When saiko fish was unavailable, 'official' by-catch landed by trawlers at Tema port was obtained and analysed. In contrast to the saiko catches, this fish is packed in boxes marked with the registered owner of the trawler that caught the fish. Analyses were carried out on an approximately fortnightly basis for a one-year period, from 27 September 2018 to 24 September 2019. A total of 22 blocks of fish were analysed during this period (18 saiko blocks, 4 blocks of official by-catch).

Of the individual fish of *Sardinella* spp. recorded, 98.9% of individuals were below the minimum accepted landing size as stipulated in the 2010 Fisheries Regulations, LI 1968. This figure was 99.0% for saiko fish landed at Elmina, and 98.7% for by-catch landed at Tema. The mean length (FL) of Round Sardinella analysed was 13.9 cm. The mean length (FL) of Flat Sardinella analysed was 12.4 cm. The minimum commercial landing size for both species in Ghana is 18 cm.



Block of saiko fish analysed in April 2019 - juvenile Sardinella spp. contributed 44.6% by weight.

Sardinella spp. were present in 12 out of 18 blocks of saiko fish sampled (67%), and 2 out of 4 blocks of by-catch sampled from Tema port (50%). Where present, Sardinella spp. accounted for between 0.2% and 44.4% of individuals in the blocks of saiko fish sampled and contributed between 0.3% and 44.6% by weight. In two blocks of by-catch landed at Tema port, juvenile sardinella accounted for over 97% of individual fish sampled and contributed over 95% by weight.

Figure 5: Overview of length at maturity indices of fish in 22 blocks of trawler by-catch (sampled between 27 September 2018 and 24 September 2019)

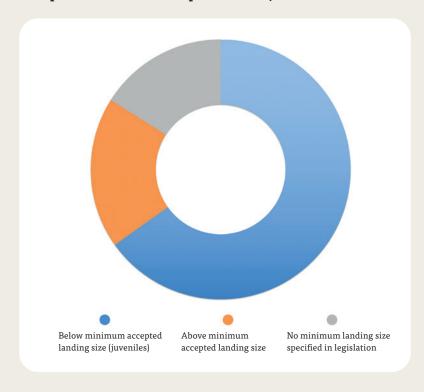
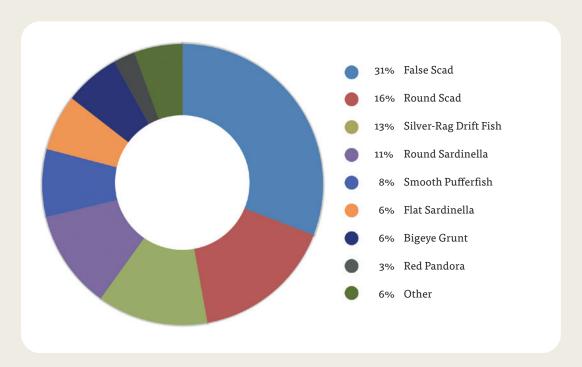


Figure 6: Overview of species composition by weight in 22 blocks of trawler by-catch - saiko landings at Elmina and fish landed at Tema (sampled between 27 September 2018 and 24 September 2019)



In two cases, *Sardinella* spp. accounted for 97% of fish in the individual blocks, nearly all of which were juveniles. As both of the blocks were landed at Tema, it was possible to discern information on the vessel that caught the fish:

• 10 September 2019: Analysis of by-catch in a box marked with the name of the company LYEMYLFEN CO. LTD. This company was listed in the 2019 licence list⁹¹ as the registered owner of two industrial trawl vessels operating in Ghana, LU RONG YUAN YU 928 and LU RONG YUAN YU 929.

According to information from the Chinese Ministry of Agriculture and Rural Affairs⁹², the vessels LU RONG YUAN YU 928 and 929 are operated by the company Rongcheng Marine Fishery Co Ltd. **This company also operates trawlers that, up to the end of 2019, received authorisation to export fisheries products to the EU**⁹³ (see **Box 1**).

Table 5: Size information for Sardinella spp. in by-catch analysed on 10 September 2019

Species	Number of individuals	% of total	% below minimum size in LI 1968	Average size (fork length)	Minimum size (fork length)	Maximum size (fork length)
Round Sardinella	93	22.4	90.3	13.7	10.9	19.6
Flat Sardinella	312	75.1	99.4	13.1	10.3	18.6



Composition of fish in box of by-catch labelled with the company details LYEMYLFEN CO. LTD and analysed on 10 September 2019

• 24 September 2019: Analysis of by-catch in a box marked with the name of the company GAZIMPEX GHANA LTD. This company is listed in the 2019 licence list⁹⁴ as the registered owner of two industrial trawl vessels operating in Ghana, LU RONG YUAN YU 968 and LU RONG YUAN YU 969.

According to information from the Chinese Ministry of Agriculture and Rural Affairs⁹⁵, the vessels LU RONG YUAN YU 968 and 969 are operated by the company Rongcheng Marine Fishery Co Ltd. **This company also operates trawlers that, up to the end of 2019, received authorisation to export fisheries products to the EU**⁹⁶ (see **Box 1**).

Table 6: Size information for Sardinella spp. in by-catch analysed on 24 September 2019

Species	Number of individuals	% of total	% below minimum size in LI 1968	Average size (fork length)	Minimum size (fork length)	Maximum size (fork length)
Round Sardinella	288	59.5	100.0	12.5	9.3	15.7
Flat Sardinella	182	37.6	100.0	11.2	9.3	12.5



Composition of fish in box of by-catch labelled with the company details GAZIMPEX GHANA LTD and analysed on 24 September 2019

EJF reported these cases to the Fisheries Commission in September and October 2019, respectively. No outcome of any investigation has yet been reported.

Box 4: Sanctions imposed on the trawler LU RONG YUAN YU 956 for illegal fishing



The arrested vessel Lu Rong Yuan Yu 956 at port.

On 17 June 2019, the LU RONG YUAN YU 956 was apprehended with 405 boxes and 864 slabs of frozen mixed small pelagic fish species on board, generally below the minimum landing size. Other fisheries infractions that the vessel was found to have committed included non-reporting of catch on board and use of under-sized mesh nets⁹⁷.

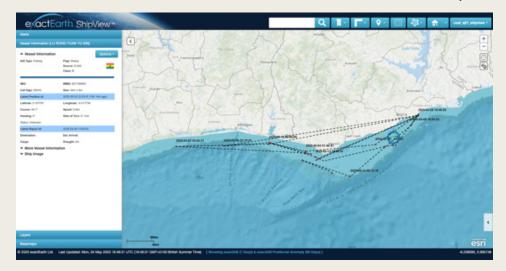
The Fisheries Commission confirmed that the vessel had docked at Tema port but failed to report a portion of its catch. According to the authorities, it then left Tema with the fish on board, with the intention of transshipping the fish at sea to a saiko canoe⁹⁸.

In October 2019, an out of court settlement committee imposed a fine of US\$1 million on the owner of the vessel, and an additional GHS 124,000 (US\$21,470 approx.) for the fish on board the vessel at the time of arrest⁹⁹.

This case is significant as one of very few instances in which the minimum statutory fine has been imposed on a trawler for use of prohibited fishing gears and targeting of under-sized fish. However, the registered owner, Gyinam Fisheries and Sons Ltd, has since refused to pay, resulting in the matter reverting to court¹oo. Between January and April 2020, the vessel was observed fishing in the waters of Ghana and Côte d'Ivoire, despite having failed to pay the fine imposed¹o¹.

In May 2020, the vessel was re-arrested by Ghana's Marine Police for catching juvenile fish and the use of prohibited under-sized mesh nets¹⁰².

Figure 7: Positions of the vessel LU RONG YUAN YU 956 observed on AIS between 1 January and 30 April 2020



Research into the beneficial ownership of the vessel LU RONG YUAN YU 956 reveals linkages to other IUU vessels operating in the Ghanaian EEZ, as well as tuna vessels authorised to export fisheries products to the EU market.

In official documents of the Chinese Ministry of Agriculture and Rural Affairs¹⁰³, the vessel is listed as operated by the company Rongcheng Ocean Fishery Co Ltd. In the same lists, Rongcheng Ocean Fishery Co Ltd is listed as the operator of another Ghanaian-flagged trawler, LU RONG YUAN YU 959, which was fined US\$250,000 and GHS47,980 in 2015 for taking on board under-sized fish. The company is also listed as the operator of two tuna vessels, LU RONG YUAN YU 221 and 222, that are authorised to export fisheries products to the EU¹⁰⁴.

3.2. The prohibition against foreign ownership and control in Ghana's industrial trawl sector

Ghana's 2002 Fisheries Act (Act 625) prohibits foreign ownership or control of vessels in the country's industrial trawl sector. According to Section 47(1), industrial vessels operating under the Ghanaian flag should be owned or controlled by:

- a citizen of Ghana;
- the Government of Ghana;
- a company or partnership registered by law in Ghana which has its principal place of business in Ghana, and the share of which is beneficially owned wholly by the Government, a citizen, a public corporation established by law in Ghana or a combination of any of them.

An exception is provided in the case of tuna vessels, for which at least 50% of the shares must be beneficially owned or controlled by the persons or entities specified above, i.e. a Ghanaian citizen, the government or a Ghanaian company or partnership.

In practice, however, the vast majority of trawlers operating in Ghana are beneficially owned by Chinese corporations¹⁰⁵.

To circumvent the legal prohibition against foreign involvement in the trawl sector, operators set up opaque corporate structures to gain access to Ghana's fisheries on local licences¹⁰⁶ (**Box 5**).

The result is a complete lack of transparency as regards the true nature of ownership of industrial trawl vessels operating in Ghana. In official sources, such as the vessel licence list and the database of vessels maintained by IHS Sea-web¹⁰⁷, only the Ghanaian company appears, often with just a PO box as the contact¹⁰⁸. Further investigation reveals, however, that in reality 90-95% of Ghana's trawl fleet may have some Chinese involvement¹⁰⁹. Evidence indicates substantial control of vessel operations by Chinese operators, including oversight of landings and exports and supply of captains and crew¹¹⁰ (see also **Box 1**). In 2015, Chinese nationals captained over 95% of trawlers with active licences to fish in Ghanaian waters (102 of 106 vessels)¹¹¹.

While companies with foreign participation are required to register with the Ghana Investment Promotion Centre (GIPC) prior to commencing business¹¹², Chinese fishing companies exporting seafood from Ghana do not seem to appear on the list of registered companies with valid GIPC certificates¹¹³.



Image of an industrial trawler allegedly fishing in the IEZ in March 2019.

Box 5: Corporate structures established by Shandong Zhonglu Oceanic Fisheries Co. Ltd, a Chinese company with operations in Ghana

In its Annual Report for 2014, Chinese company, Shandong Zhonglu Oceanic Fisheries Co. Ltd, registered in Shandong Province, describes how it exerts control over a Special Purpose Vehicle (SPV) in Ghana via an operational lease¹¹⁴.

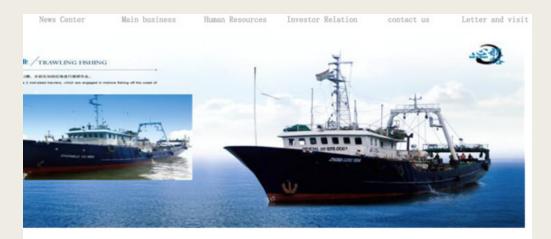
The SPV concerned–Ghanaian company Yaw Addo Fisheries Company Limited–in turn, holds the licences for two trawlers currently operating in Ghana, ZHONG LU YU 1003 and ZHONG LU YU 1004¹¹⁵.



 $Image\ of\ the\ vessel\ ZHONG\ LU\ YU\ 1003\ fishing\ in\ Ghana\ taken\ by\ a\ local\ canoe\ fisher\ in\ July\ 2019.$

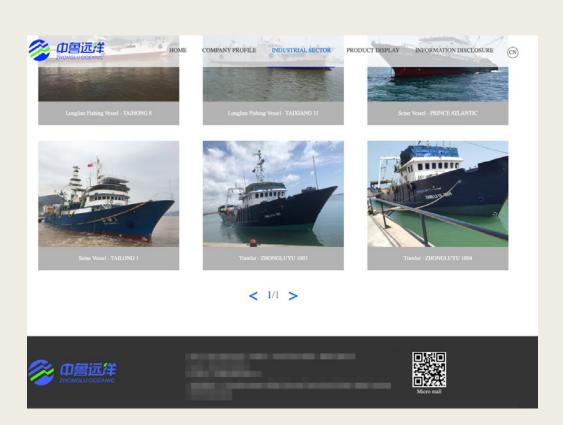
Both vessels are included on the list of Ghanaian establishments authorised to export fishery products to the European Union¹¹⁶. The company also operates two tuna vessels (LONG TAI 1 and 2) via its local joint venture Laif Fisheries Co. Ltd¹¹⁷, both of which are also authorised to export tuna products to the EU¹¹⁸.

Figure 8: Screenshots from the website of Shandong Zhonglu Oceanic Fisheries Co. Ltd119



YAW ADDO FISHERIES CO., LTD.

YAW ADDO FISHERIES CO., LTD. Established in 2007, it is located in Tema City, Republic of Ghana. It mainly operates two medium-sized trawlers "Zhonglu Fishing 1003" and "Zhonglu Fishing 1004". Mainly catching cuttlefish, octopus, etc., the products are sold to European and local markets.



4. Specific cases of illegal fishing by trawlers and linkages to the EU seafood market



An industrial trawler fishing off the coast of Cape Coast in Ghana's Central Region in December 2019. The vessel was observed with its nets allegedly deployed within the Inshore Exclusion Zone (IEZ) reserved for artisanal fishers. The image was captured by artisanal fishers using a geotagged camera provided by EJF.

The sections above raise concerns regarding systemic and widespread illegalities in Ghana's industrial trawl sector, including the engagement of vessels in the highly destructive saiko trade, which is having a devastating impact on the livelihoods and food security of local fishing communities (Section 3.1). Fishing vessels that export seafood to the EU have been implicated in the illegal saiko trade (Box 6) as well as other illegalities, such as incursions into areas reserved for artisanal fishers (Box 7). This research also establishes ownership linkages between trawlers with a record of IUU fishing and vessels with authorisation to export fisheries products to the EU market (Box 4).

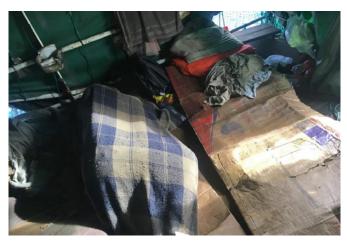
A summary of alleged and confirmed cases of IUU fishing involving trawlers with linkages to the EU seafood market is provided in **Table 7**.

In addition to IUU fishing concerns, EJF research has uncovered potential issues concerning compliance of trawlers with EU health legislation (**Section 2**), as well as nationality requirements under Ghanaian law and legislation on foreign investment (**Section 3.2**).

Trawlers operating under the Ghanaian flag have also been implicated in alleged human rights abuses and labour violations at sea, including potential cases of forced labour. Allegations include physical violence directed at crew members, absence of employment contracts for workers, poor living and working conditions on board the vessels, and blacklisting of workers attempting to form and join trade unions to protect their interests¹²⁰.



Catches waiting to be sorted on board a Ghanaian-flagged industrial trawler.



Living conditions for crew working on board an industrial trawler. Crew members sleep on sheets of cardboard laid out under a tarpaulin on the deck.

Table 7: Examples of alleged and confirmed cases of IUU fishing involving trawlers with linkages to the EU seafood market

Date of alleged infraction	Vessel	Alleged infraction	Status/outcome	Link to the EU market	Source*
April 2015	LU RONG YUAN YU 959	Taking on-board under-sized fish	Settled with payment of fine	Beneficial ownership: Rong Cheng Ocean Fishery Co. Ltd operates two tuna vessels, LU RONG YUAN YU 221 and 222, authorised to export fisheries products to the EU.	Friends of the Nation**
November 2015	LU RONG YUAN YU 916	Use of topside chafers***	Settled with payment of fine	Authorised to export fisheries products to the EU up to the end 2019	Friends of the Nation**
2016	LONG XIANG 607	Unauthorised trans-shipment	Settled with payment of fine	Authorised to export fisheries products to the EU	Fisheries Commission
November 2017	LONG XIANG 606	Fishing in the IEZ of Ghana and below minimum permitted distance in Côte d'Ivoire	Warning issued	Authorised to export fisheries products to the EU	EJF monitoring (AIS)
February 2018	LU RONG YUAN YU 220	Possible fishing below minimum permitted distance in Côte d'Ivoire	No information	Beneficial ownership: Rong Cheng Ocean Fishery Co. Ltd operates two tuna vessels, LU RONG YUAN YU 221 and 222, authorised to export fisheries products to the EU.	EJF monitoring (AIS)
December 2018	LU RONG YUAN YU 920	Possible trawler-canoe trans- shipment (saiko)	No information	Authorised to export fisheries products to the EU up to the end 2019	EJF monitoring (at-sea)
June 2019	LU RONG YUAN YU 956	Use of prohibited fishing gears, catching of under-sized (juvenile) fish, non-reporting of catches	US\$1 million fine imposed by arbitration committee unpaid. Awaiting next court hearing.	Beneficial ownership: Rong Cheng Ocean Fishery Co. Ltd operates two tuna vessels, LU RONG YUAN YU 221 and 222, authorised to export fisheries products to the EU.	Fisheries Commission
September 2019	LU RONG YUAN YU 928 or 929	Possible landing of under- sized fish	No information	Beneficial ownership: Rong Cheng Marine Fishery Co. Ltd operates trawler vessels, LU RONG YUAN YU 906-910 and 916-920, that were authorised to export fisheries products to the EU until the end of 2019.	EJF monitoring (in port)
September 2019	LU RONG YUAN YU 968 or 969	Possible landing of under- sized fish	No information	Beneficial ownership: Rong Cheng Marine Fishery Co. Ltd operates trawler vessels, LU RONG YUAN YU 906-910 and 916-920, that were authorised to export fisheries products to the EU until the end of 2019.	EJF monitoring (in port)
October 2019	ZHONG LU YU 1004	Dumping of juvenile fish, possession of illegal net less than 60 mm, trans-shipment	Prosecution ongoing	Authorised to export fisheries products to the EU. Beneficial owner, Shandong Zhonglu Oceanic Fisheries Co. Ltd, operates two tuna vessels, LONG TAI 1 and 2, authorised to export fisheries products to the EU.	Circuit Court, Takoradi
November 2019	LU RONG YUAN YU 910 or 916	Possible landing of under- sized fish	No information	Authorised to export fisheries products to the EU up to the end 2019	EJF monitoring (in port)
November 2019	LU RONG YUAN YU 920	Dumping of juvenile fish, possession of illegal net less than 60 mm	Prosecution ongoing	Authorised to export fisheries products to the EU up to the end 2019	Circuit Court, Takoradi
March-July 2020	LONG XIANG 606	Possible fishing in the IEZ	No information	Authorised to export fisheries products to the EU	EJF monitoring (AIS)
Ongoing	LONG XIANG fleet	Possible trawler-canoe trans- shipment (saiko)	No information	All vessels are authorised to export fisheries products to the EU	Fisheries observer****
May 2020	LU RONG YUAN YU 956	Use of prohibited fishing gears, catching of under-sized (juvenile) fish	Prosecution ongoing	Beneficial ownership: Rong Cheng Ocean Fishery Co. Ltd operates two tuna vessels, LU RONG YUAN YU 221 and 222, authorised to export fisheries products to the EU.	Circuit Court, Takoradi****

^{*}Cases from EJF monitoring have been reported to the Fisheries Commission for further investigation.

^{**}Friends of the Nation (2015). Baseline for Prosecutions: Summary of Fisheries Arrests and Prosecution in the Western and Eastern Commands. The USAID/Ghana Sustainable Fisheries Management Project (SFMP). Narragansett, RI: Coastal Resources Center, Graduate School of Oceanography, University of Rhode Island and Friends of the Nation. GH2014_POL013_FoN. 30 pp. http://www.crc.uri.edu/download/GH2014_POL013_FoN_FIN508.pdf

^{***} Chafers are pieces of net, canvas or other material attached to the top or bottom of a codend to protect it from damage by abrasion or impact on the seabed or from damage when it is being hauled aboard. Stewart, P.A.M., and Robertson, J.H.B. (1985). Attachments to codends. Scottish Fisheries Research Report 33:15 pp.

^{****} Pers. comm. to EJF (May 2020)

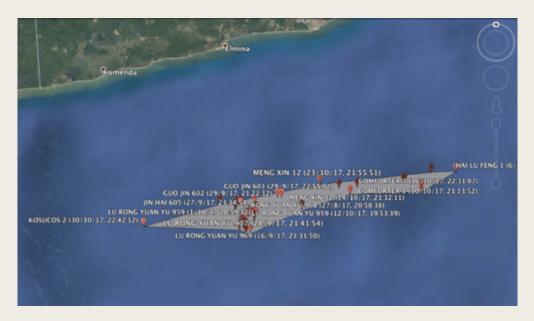
^{*****} Anon (31.5.20), 'Marine Police arrest 'notorious vessel' over juvenile fishing', *Graphic Online*: https://www.graphic.com.gh/news/general-news/marine-police-arrest-notorious-vessel-over-juvenile-fish.html. Accessed 31.5.20.

Box 6: Alleged trans-shipments at sea between LU RONG YUAN YU vessels and saiko canoes

Through the regular monitoring of fishing vessel activities using ExactEarth, EJF has identified vessel movement patterns consistent with trans-shipment (saiko) activities in an area off the coast of Elmina–the main port for saiko landings in Ghana.

Subsequent monitoring of vessel activities within this zone identified AIS positions indicative of alleged saiko activities for a number of trawlers authorised to export fisheries products to the EU market up to the end of 2019, including LU RONG YUAN YU 907, 908, 910, 916, 917 and 920¹²¹.

Figure 9: Zone of alleged saiko events identified by EJF through AIS monitoring



On 1 December 2018, a film crew from EJF recorded the vessel LU RONG YUAN YU 920 allegedly meeting up with a saiko canoe within the zone of potential saiko events. The vessel was observed on AIS at a stationary position (0.1-0.6 knots) in this area from 23:40 on 1 December to 02:34 on 2 December 2018, around 12 nautical miles off the coast of Elmina.

Figure 10: Positions of the vessel LU RONG YUAN YU 920 observed on AIS on 1 and 2 December 2018 in the zone of potential saiko events

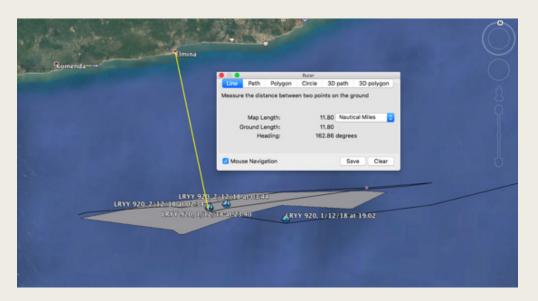


Figure 11: Image of an alleged saiko canoe alongside the vessel LU RONG YUAN YU 920 taken at 21:40 on 1 December 2018 (latitude: 4.893745, longitude: -1.291105)



 $Image of the vessel LU \ RONG \ YUAN \ YU \ 920 \ allegedly \ carrying \ out \ a \ saiko \ trans-shipment \ at sea \ off \ the \ coast \ of \ Elmina \ in \ December \ 2018.$

Box 7: Alleged fisheries violations of LONG XIANG 606 identified through remote monitoring

Using the software ExactEarth, EJF monitors fishing vessel activities in regions with high levels of IUU fishing, such as West Africa. ExactEarth is a satellite-based tracking system that allows for the observation of vessels equipped with an Automatic Identification System (AIS).

In November 2017, EJF observed the industrial trawl vessel, LONG XIANG 606, operating at speeds consistent with fishing activity¹²², apparently in areas prohibited for industrial trawl vessels.

In Côte d'Ivoire, Ghanaian-flagged industrial trawlers are not permitted to operate within 7 nautical miles of the shoreline¹²³. On 14 and 19 November 2017, the vessel was observed operating at speeds of around 3.7 knots, 3.4 nautical miles from the shoreline.

Figure 12: LONG XIANG 606 operating at around 3.4 nautical miles from shore in the waters of Côte d'Ivoire (19-20 November 2017)

Figure 13: LONG XIANG 606 operating at around 3.4 nautical miles from shore in the waters of Ghana (15-16 November 2017)





In Ghana, the Inshore Exclusion Zone (IEZ) reserved for artisanal fishers is set at 6 nautical miles, or the 30-metre depth limit, whichever is further from the shoreline¹²⁴. On several occasions in November 2017, LONG XIANG 606 was observed on AIS operating at speeds of between 3 and 4 knots, less than 4 nautical miles from the Ghanaian shoreline.

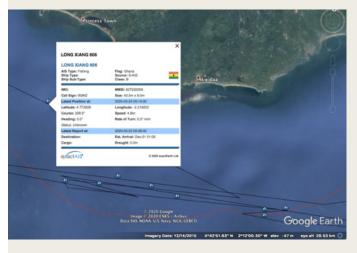
This information was communicated by EJF to the MCS Division of Ghana's Fisheries Commission¹²⁵, resulting in an investigation and a warning issued to the vessel's operator¹²⁶.

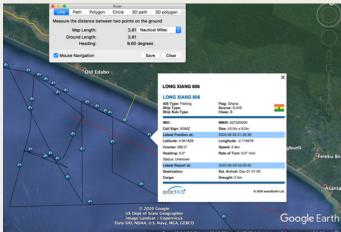
Between March and July 2020, the vessel was again observed on AIS operating at speeds consistent with fishing activity (2.3-5.7 knots) at a number of locations within the IEZ (3.8-5.6 nautical miles from shore) off the coast of Ghana's Western Region. This information was communicated by EJF to the Fisheries Commission in March and July 2020¹²⁷.

LONG XIANG 606 is included on the list of establishments authorised to export fisheries products to the EU128.

Figure 14: LONG XIANG 606 between 24 and 26 March 2020 (red line indicates the IEZ boundary)

Figure 15: LONG XIANG 606 between 29 June and 2 July 2020 (red line indicates IEZ boundary)







5. Conclusions

This report details the high risk that seafood caught by, or in association with, illegal fishing practices in Ghana continues to enter the EU market. There is evidence of systemic and widespread illegalities in Ghana's industrial trawl sector which, alongside a severe lack of transparency, impede Ghana's ability to sustainably manage its marine fisheries and discharge its obligations under international fisheries law.

While tuna products are the main fisheries export from Ghana to the EU market, the activities of the industrial trawl fleet are having a disproportionate impact, driving the potential collapse of Ghana's coastal fisheries.

Fishing vessels that export seafood to the EU have been implicated in the illegal saiko trade which, according to interviews with fisheries observers and daily monitoring at Elmina port, continues to this day¹²⁹. These vessels have been observed fishing illegally in areas reserved for artisanal fishers and landing small pelagic species that are the key target catch of the artisanal fishery and are in steep decline.

The majority of trawlers are linked to Chinese interests, despite a prohibition on foreign beneficial ownership in the trawl sector. This raises questions around compliance with laws on foreign investment. In some cases, beneficial owners of industrial trawlers in Ghana-some with a record of IUU fishing infringements-also operate tuna vessels which are authorised to export fisheries products to the EU market.

In addition, irregularities have been identified in relation to EU health requirements, with products apparently routed via China and exported to the EU as products of Chinese rather than Ghanaian origin. The lack of traceability in supply chains may mean that, in reality, considerably more products from Ghana's trawl fishery are finding their way to the EU market.

As a market for seafood caught by the Ghana-flagged trawl fleet, EU consumers are inadvertently supporting these illegal practices and severe overfishing in Ghana's waters.

This report details the high risk that seafood caught by, or in association with, illegal fishing practices in Ghana continues to enter the EU market.

This has potentially devastating implications for local fishing communities, and the 2.7 million people in Ghana that rely on marine fisheries for their livelihoods.

The full and effective implementation of the EU IUU Regulation catch certification scheme and third country dialogue process provide tools that can be used to prevent European consumers receiving seafood caught illegally. EU cooperation with Ghana in the context of Sustainable Fisheries Partnership Agreement (SFPA) negotiations and implementation of the "Improved regional fisheries governance in Western Africa" (PESCAO) project can also be leveraged to eliminate illegal and unsustainable practices from Ghana's industrial fishing sector and, in particular, saiko.

Given the severity of impacts of illegal fishing on Ghana's coastal communities and marine resources, it is critical that European industry, the European Commission and Member States undertake detailed scrutiny of seafood imports from Ghana to ensure products caught by, or in association with, illegal practices are blocked from entering the EU market.

It is imperative that all Member States implement rigorous and effective import controls under the EU IUU Regulation. While the recent development of the EU-wide IT database (CATCH) is a welcome step towards the harmonisation of controls for wild-caught fisheries products at EU borders, it is important that the system's use by Member States be made mandatory. The European Commission should also endeavour to enhance CATCH's risk analyses capability to ensure illegally-caught fishery products imported from third countries are effectively barred from entering the EU market.





Frozen blocks of fish being prepared for trans-shipment from a trawler to a saiko canoe © Hen Mpoano

6. Recommendations

Action from all stakeholders, including the EU as a market state, is urgently required to end the destructive illegal fishing practice known as saiko and bring the activities of Ghana's industrial trawl fleet into line with national and international law. Improving transparency in the sector, in accordance with EJF's ten principles for global transparency in the fishing industry¹³⁰, is critical to eliminating IUU fishing and other illegal practices and averting the collapse of Ghana's fisheries.

Below are concrete and actionable recommendations to address the ongoing crisis in Ghana's fisheries sector. Further recommendations targeted at the governments of Ghana and China are set out in detail in previous EJF reports¹³¹.

To the Government of Ghana:

- Ensure the effective, consistent and transparent enforcement of the law and imposition of sanctions of sufficient severity to prevent, deter and eliminate IUU fishing, including the suspension and withdrawal of licences for repeat offenders.
- 2. Take urgent action to bring a permanent end to illegal saiko fishing, in line with the government's commitment in the 2020 Budget Statement and Economic Policy.
- 3. Scrutinise, in detail, publishing the results, the ownership arrangements of all industrial trawl vessels currently operating in Ghana to ensure compliance with requirements regarding the nationality of beneficial owners set out in the 2002 Fisheries Act, and that all aspects of their operations are carried out legally.



- 4. Adopt all necessary measures, including a reduction in the number of licensed trawlers and fishing days, and implementation of closed seasons, to ensure the fishing effort of the industrial trawl fleet is brought down to sustainable levels.
- 5. In the interests of transparent and accountable decision-making, make publicly available and maintain updated key fisheries-related information, including IUU fishing infringements and sanctions imposed/ paid, licences and authorisations for fishing activities, allocated fishing days and reported catches, and details of vessel beneficial ownership.

To the European Union:

- 1. Cooperate with the government of Ghana through the EU-Ghana IUU Working Group established after the lifting of the yellow card to address illegal and destructive fishing practices, with a specific focus on ending saiko and improving transparency in Ghana's industrial fishing sector.
- 2. Be prepared to use all tools foreseen under the EU IUU Regulation if it is demonstrated that Ghana has failed to discharge its duties under international law as flag, port, coastal or market state and to remedy this situation as envisaged in Commissioner Sinkevičius's mission letter¹³².
- 3. Bring, through the appropriate channels, IUU fishing risks to the attention of EU Member States, particularly Portugal, Italy and Spain, which receive the majority of cephalopod imports from Ghana, and require them to increase scrutiny of fisheries imports stemming from Ghana's trawl sector.
- 4. Bring, through the appropriate channels, risks of IUU fishing and potential trade diversion to the attention of other EU Member States, such as France, Germany and the Netherlands, as well as the United Kingdom, which are major importers of tuna products from the country.
- 5. Use the information gathered from EU Member States' verifications to best orient the actions under the auspices of the EU-Ghana IUU Working Group.
- 6. Bring IUU fishing risks to the attention of importers and other relevant seafood businesses in the EU, particularly in the Member States mentioned above.
- 7. Cooperate with the governments of Ghana and China to ensure industrial trawlers exporting catches to the EU comply with EU health requirements, as well as local laws on beneficial ownership and foreign investment, and international human rights and labour standards.
- 8. Promote the implementation of the EU IUU Regulation catch certificate IT system (CATCH) and make it mandatory for EU Member States as stated in the Commission's proposal for the revision of the Control Regulation¹³³. Encourage the swift adoption of more comprehensive risk criteria and seamless data cross-checks during the next iterations of the CATCH IT system.
- Ensure application of standardised risk analysis criteria and procedures for the verification of high-risk catch certificates and inspection of consignments, taking into account best practices currently implemented in the EU.

To the EU Member States:

- Increase scrutiny of fisheries imports from Ghana,
 particularly those stemming from its trawl sector, through
 standardised verification and inspection procedures in
 accordance with risk criteria under the EU IUU Regulation
 catch certification scheme, making full use of the
 provisions under Article 17 of the EU IUU Regulation.
- Request all relevant data, particularly from vessel monitoring systems, for all fishing activities of industrial trawlers fishing under the Ghanaian flag through the catch certificate verification process to ensure compliance with relevant laws and management measures.
- 3. Reject consignments of seafood where there is evidence to suggest non-compliance with applicable laws and management measures such as saiko.
- 4. Involve the European Commission in, and promptly report to its services, any actions taken under Articles 17 and 18 of the EU IUU Regulation for the institution to take them into consideration in the context of the EU-Ghana IUU Working Group.
- 5. Scrutinise the provenance of exports of demersal species originating from China to ensure compliance with the EU IUU Regulation and EU health rules.
- 6. Support the mandatory introduction of CATCH and look to adopt the system at the earliest possible date, so as to ensure its effectiveness.
- Support the implementation of a standardised EU-wide approach to risk analysis through CATCH, ensuring it is effectively applied in the detection of high-risk catch certificates/consignments.

To EU industry:

- Scrutinise supply chains connected to the Ghanaian industrial fishing fleet and implement robust due diligence measures¹³⁴ to identify and address IUU fishing, human rights and labour risks.
- 2. Demand sufficient data on sourcing vessels to ensure no vessel with a history of committing IUU fishing, human rights abuses or labour violations can enter supply chains.
- Implement due diligence measures to reduce the risk of supplying IUU seafood or products tainted by human rights abuses. Guidance for doing this is provided in the PAS 1550 Code of Conduct.
- To make due diligence measures more efficient and effective, support the adoption of the transparency measures set out in EJF's Charter for Transparency.
- 5. Adopt a zero-tolerance approach to human rights abuses, labour rights violations and IUU fishing where they are detected.

References

- 1 Eurostat. Reported under chapter 03 and sub-headings 1604 and 1605 of the World Customs Organization Harmonized System
- 2 Member States of the European Union and the United Kingdom.
- 3 Eurostat. Reported under chapter 03 and sub-headings 1604 and 1605 of the World Customs Organization Harmonized System
- 4 Eurostat. Reported under sub-heading 0307 of the World Customs Organization Harmonized System. Annual average (2009-2018). While the trawl fleet is also understood to export snappers and groupers to the EU, species-specific codes do not exist under the Combined Nomenclature (8-digit) trade reporting system of the EU. See also: GOPA Consortium (2011). Accompanying developing countries in complying with the Implementation of Regulation 1005/2008 on Illegal, Unreported and Unregulated (IUU) Fishing. Country Profile: Ghana. EuropeAid/129609/C/SER/Multi. January 2011.
- 5 EJF and Hen Mpoano (2019). Stolen at sea: How illegal "saiko" fishing is fuelling the collapse of Ghana's fisheries. https://ejfoundation.org/reports/stolen-at-sea-how-illegal-saiko-fishing-isfuelling-the-collapse-of-ghanas-fisheries
- $\label{eq:content_EN_TXT_PDF_?uri=CELEX:32013D112} \end{content_EN_TXT_PDF_?uri=CELEX:32013D112} \end{content_EN$
- 7 http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52015XC1 002(01)&from=EN
- 8 EJF and Hen Mpoano (2019). Securing equitable and sustainable fisheries: The case for greater transparency in the management and governance of Ghana's fisheries sector. https://ejfoundation.org/reports/securing-equitable-and- $\underline{sustainable\text{-}fisheries\text{-}the\text{-}case\text{-}for\text{-}greater\text{-}transparency\text{-}in\text{-}the\text{-}management\text{-}}$ and-governance-of-ghanas-fisheries-sector; EJF and Hen Mpoano (14.2.18). 'Turning promises into reality - Ambitious action needed to secure the future of Ghana's fisheries', Graphic Online, accessed 28.10.19; World Bank (2019), Implementation Completion and Results Report 4979-GH, TF010905-GH, on an International Development Association Credit in the amount of SDR 31.1 million (US\$50.3 million equivalent) and a Global Environment Facility Grant in the Amount of US\$3.5 million to the Republic of Ghana for a Ghana Project under the First Phase of the West Africa Regional Fisheries Program (P14775). 28 March 2019: $\underline{http:/\!/documents.worldbank.org/curated/en/866911554409721545/pdf/Ghana-number 2012 and 2$ Under-the-First-Phase-of-the-West-Africa-Regional-Fisheries-Program-Project. pdf; Akpalu, W., Eriksen, S.I. and Vondolia, G.K. (2018). The Fisheries Sector in Ghana: A Political Economy Analysis. Norsk Utenrikspolitisk Institutt: https://munin.uit.no/handle/10037/14303
- 9 Dovlo, E., Amador, K., Nkrumah, B. et al. (2016). Report on the 2016 Ghana Marine Canoe Frame Survey. Fisheries Scientific Survey Division of the Fisheries Commission, Ministry of Fisheries and Aquaculture Development. August 2016.
- 10 Ghana Statistical Service (GSS) (2014), cited in Fisheries Commission (2018). 2018 Annual Report. Ministry of Fisheries and Aquaculture Development.
- 11 United States Department of Agriculture (USDA) Foreign Agricultural Service (2019). Fish and Seafood Report. Global Agricultural Information Network (GAIN) report. https://www.fas.usda.gov/data/ghana-fish-and-seafood-report
- 12 According to the Fisheries and Aquaculture Sector Development Plan for 2011-2016, the average income per canoe declined by 40% over the preceding 10-15 years.
- 13 Lazar, N., Yankson K., Blay, J., Ofori-Danson, P., Markwei, P., Agbogah, K., Bannerman, P., Sotor, M., Yamoah, K. K., Bilisini, W. B. (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. GH2014_SCI042_CRC 22 pp.
- 14 Ibid.
- 15 EJF and Hen Mpoano (2019). Stolen at sea: How illegal "saiko" fishing is fuelling the collapse of Ghana's fisheries. $\frac{1}{1000} \frac{1}{1000} = \frac{1}{1000} = \frac{1}{1000} = \frac{1}{1000} \frac{1}{1000} = \frac{1}$
- 16 EJF (2020). The "people's" fishery on the brink of collapse: Small pelagics in landings of Ghana's industrial trawl fleet. https://ejfoundation.org/reports/the-peoples-fishery-on-the-brink-of-collapse-small-pelagics-in-landings-of-ghanas-industrial-trawl-fleet

- 17 Ibid.
- 18 Republic of Ghana, Ministry of Fisheries and Aquaculture Development (MoFAD), 'Vessel Registry', accessed 04.06.20. https://www.mofad.gov.gh/publications/statistics-and-reports/vessel-registry/. The list of licensed vessels is not published routinely on the website of the Ministry for Fisheries and Aquaculture Development (MoFAD) precluding external scrutiny of licences.
- 19 A beneficial owner is a natural person who ultimately owns or controls a legal entity or arrangement: IDB and OECD (2019). A beneficial ownership implementation toolkit. https://www.oecd.org/tax/transparency/beneficial-ownership-toolkit.pdf
- 20 EJF (2018). China's hidden fleet in West Africa: A spotlight on illegal practices within Ghana's industrial trawl sector. https://ejfoundation.org/reports/chinas-hidden-fleet-in-west-africa-a-spotlight-on-illegal-practices-within-ghanas-industrial-trawl-sector
- 21 Section 47(1) 2002 Fisheries Act; Taylor Crabbe Initiative (2019). Legal opinion on the engagement of foreign companies in Ghana's industrial trawl sector. https://ejfoundation.org/reports/legal-opinion-on-the-engagement-of-foreign-companies-in-ghanas-industrial-trawl-sector
- 22 EJF (2018). China's hidden fleet in West Africa: A spotlight on illegal practices within Ghana's industrial trawl sector. https://ejfoundation.org/reports/chinas-hidden-fleet-in-west-africa-a-spotlight-on-illegal-practices-within-ghanas-industrial-trawl-sector; Samari, M. (12.9.19), 'Investigation ties foreign-owned trawlers to illegal fishing in Ghana', China Dialogue Ocean, accessed 1.7.20. https://chinadialogueocean.net/10050-investigation-illegal-fishing-in-ghana-pt-1/
- 23 EJF (in prep.). Human rights abuses in Ghana's industrial trawl fleet.
- ${\bf 24} \quad EJF \ ({\bf 2018}). \ The \ ten \ principles \ for \ global \ transparency. \ \underline{https://ejfoundation.org/reports/the-ten-principles-for-global-transparency}$
- 25 See EJF (2018). China's Hidden Fleet in West Africa. A spotlight on illegal practices within Ghana's industrial trawl sector and EJF and Hen Mpoano (2019). Stolen at sea: How illegal "saiko" fishing is fuelling the collapse of Ghana's fisheries.
- 26 Von der Leyen, U. (10.9.19). Mission letter to Virginijus Sinkevičius, Commissioner-designate for Environment and Oceans. https://ec.europa.eu/commission/sites/beta-political/files/mission-letter-virginijus-sinkeviciusen.pdf. Accessed 9.7.20
- 27 Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL amending Council Regulation (EC) No 1224/2009, and amending Council Regulations (EC) No 768/2005, (EC) No 1967/2006, (EC) No 1005/2008, and Regulation (EU) No 2016/1139 of the European Parliament and of the Council as regards fisheries control.
- 28 In line with PAS 1550:2017 developed for compliance with the EU IUU Regulation. The PAS 1550:2017 Code of Practice has been developed by industry and civil society organisations to help improve understanding of the EU IUU Regulation and to help the industry adapt their due diligence and risk assessment systems to reduce the risk of supplying or procuring IUU fish, or fish either caught or processed by workers who are not provided with decent working conditions. https://shop.bsigroup.com/ProductDetail?pid=00000000030337167
- 29 Council Regulation (EC) No 1005/2008 of 29 September 2008 establishing a Community system to prevent, deter and eliminate illegal, unreported and unregulated fishing: https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A32008R1005
- 30 Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on a new strategy for the Community to prevent, deter and eliminate Illegal, Unreported and Unregulated fishing. COM/2007/0601 final: http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52007DC0601
- 31 The obligation on EU Member States to carry out verifications based on risk management is set out in Article 17(3) Regulation (EC) No. 1005/2008.
- 32 Biennial reports submitted by EU Member States to the European Commission under the EU IUU Regulation.
- 33 Article 18(1)(g) and Article 31 Regulation (EC) No. 1005/2008.

- 34 European Commission (2019). Overview of existing procedures as regards third countries. https://ec.europa.eu/fisheries/sites/fisheries/files/illegal-fishing-overview-of-existing-procedures-third-countries_en.pdf. Accessed 9.7.20
- 35 EJF, Oceana, Pew, WWF (2015). Yellow and red-carding process is encouraging fisheries reforms and must be maintained. Case Study #1, August 2015; EJF, Oceana, Pew, WWF (2015). EU Regulation to combat illegal fishing. Third country carding process Success for South Korea and the Philippines. Case Study #2, October 2015.
- 36 EJF, Oceana, The Pew Charitable Trusts and WWF (2017). The EU IUU Regulation: Analysis of Implementation of EU Seafood Import Controls. http://www.iuuwatch.eu/2017/03/analysis-member-states-progress-implementation-import-controls-iuu-regulation/ and Mundy, V. (2018). The impact of the EU IUU Regulation on seafood trade flows: Identification of intra-EU shifts in import trends related to the catch certification scheme and third country carding process. EJF, Oceana, The Pew Charitable Trusts, WWF. Brussels, Belgium. http://www.iuuwatch.eu/wp-content/uploads/2018/02/TDA_report_IUUwatch_HQ.pdf
- 37 http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32013D11 27(02)&from=EN
- 38 http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52015XC1 002(01)&from=EN
- 39 Fisheries (Amendment) Act, 2014 (Act 880) and the Fisheries (Amendment) Regulations, 2015 (LI 2217)
- 40 Republic of Ghana (2015). Fisheries Management Plan of Ghana: A National Policy for the Management of the Marine Fisheries Sector 2015-2019. https://mofad.gov.gh/fisheries-management-plan-of-ghana-2015-2019/
- 41 Republic of Ghana (2014). National plan of action to prevent, deter and eliminate illegal, unreported and unregulated fishing. May 2014. http://www.fao.org/fishery/docs/DOCUMENT/IPOAS/national/Ghana/NPOA IUU.pdf
- 42 EJF and Hen Mpoano (2019). Securing equitable and sustainable fisheries: The case for greater transparency in the management and governance of Ghana's fisheries sector. https://ejfoundation.org/reports/securing-equitable-and-sustainablefisheries-the-case-for-greater-transparency-in-the-management-and-governanceof-ghanas-fisheries-sector; EJF and Hen Mpoano (14.2.18). 'Turning promises into reality - Ambitious action needed to secure the future of Ghana's fisheries', Graphic Online, accessed 28.10.19; World Bank (2019), Implementation Completion and Results Report 4979-GH, TF010905-GH, on an International Development Association Credit in the amount of SDR 31.1 million (US\$50.3 million equivalent) and a Global Environment Facility Grant in the Amount of US\$3.5 million to the Republic of Ghana for a Ghana Project under the First Phase of the West Africa Regional Fisheries Program (P14775). 28 March 2019: http://documents.worldbank.org/curated/ en/866911554409721545/pdf/Ghana-Under-the-First-Phase-of-the-West-Africa-Regional-Fisheries-Program-Project.pdf; Akpalu, W., Eriksen, S.I. and Vondolia, G.K. (2018). The Fisheries Sector in Ghana: A Political Economy Analysis. Norsk Utenrikspolitisk Institutt: https://munin.uit.no/handle/10037/14303
- 43 Even though Ghana's fisheries laws require that the minimum fine be paid whether imposed by an out of court settlement committee or by the court: Section 116(1), 2002 Fisheries Act, 625. See also: EJF (2018). China's hidden fleet in West Africa: A spotlight on illegal practices within Ghana's industrial trawl sector. https://ejfoundation.org/reports/chinas-hidden-fleet-in-west-africa-a-spotlight-on-illegal-practices-within-ghanas-industrial-trawl-sector; Akpalu, W., Eriksen, S.I. and Vondolia, G.K. (2018). The Fisheries Sector in Ghana: A Political Economy Analysis. Norsk Utenrikspolitisk Institut. https://munin.uit.no/handle/10037/14303
- 44 Anon (23.1.20), 'Trawlers charged with illegal fishing continue to dodge fines in Ghana', EJF, accessed 4.5.20. https://ejfoundation.org/news-media/trawlers-charged-with-illegal-fishing-continue-to-dodge-fines-in-ghana-1.
- 45 Anon (22.10.19), 'Trawler fined for targeting undersized fish with illegal nets in Ghana', EJF, accessed 4.5.20. https://ejfoundation.org/news-media/trawler-fined-for-targeting-undersized-fish-with-illegal-nets-in-ghana
- 46 Godfrey, M. (3.3.20), 'Chinese trawler fishing in Ghana again, without paying USD 1 million fine', *SeafoodSource*, accessed 4.5.20. https://www.seafoodsource.com/news/environment-sustainability/china-trawler-fishing-inghana-again-without-paying-usd-1-million-fine
- 47 Yeboah, I. (31.5.20), 'Marine Police arrest 'notorious vessel' over juvenile fishing', *Graphic Online*, https://www.graphic.com.gh/news/general-news/marine-police-arrest-notorious-vessel-over-juvenile-fish.html

- 48 Republic of Ghana, Ministry of Fisheries and Aquaculture Development (MoFAD), 'Vessel Registry', accessed 04.06.20. https://www.mofad.gov.gh/publications/statistics-and-reports/vessel-registry/.
- 49 Republic of Ghana (2015). Fisheries Management Plan of Ghana: A National Policy for the Management of the Marine Fisheries Sector 2015-2019. https://mofad.gov.gh/fisheries-management-plan-of-ghana-2015-2019/. The scientific basis for the recommendation of 48 trawlers is unclear in that it fails to take into account illegal and unreported catches. In 2017, an estimated 100,000 tonnes of fish were traded illegally through saiko, suggesting that just 40% of catches were caught legally and reported that year. If illegal and unreported catches are taken into account, as few as 24-25 trawlers may be required to sustain the fishery. See: EJF (2019). Stolen at Sea: How illegal 'saiko' fishing is fuelling the collapse of Ghana's fisheries. https://ejfoundation.org/reports/stolen-at-sea-how-illegal-saiko-fishing-is-fuelling-the-collapse-of-ghanas-fisheries.
- 50 Akpalu, W., Eriksen, S.I. and Vondolia, G.K. (2018). The Fisheries Sector in Ghana: A Political Economy Analysis. Norsk Utenrikspolitisk Institutt; Yamoah, K. (2016). Independent audit of Ghana's industrial and semi-industrial fishing fleets. Unpublished. https://munin.uit.no/handle/10037/14303
- 51 Anon (27.5.20), 'New trawlers arrive from China as Ghana's fisheries teeter on the brink of collapse'., EJF, accessed 4.6.20. $\frac{\text{https://ejfoundation.org/news-media/new-trawlers-arrive-from-china-as-ghanas-fisheries-teeter-on-brink-of-collapse}$
- 52 The vessel licence list was not made available to the public between July 2018 and December 2019. The licence list for the first two quarters of 2020 was published on the website of the Ministry of Fisheries and Aquaculture Development in June 2020.
- 53 Eurostat. Reported under chapter 03 and sub-headings 1604 and 1605, of the World Customs Organization Harmonized System.
- 54 Eurostat. Reported under chapter 03 and sub-headings 1604 and 1605, of the World Customs Organization Harmonized System.
- 55 Eurostat. Reported under sub-heading 0307 of the World Customs Organization Harmonized System. Annual average (2009-2018). While the trawl fleet is also understood to export snappers and groupers to the EU, species-specific codes do not exist under the Combined Nomenclature (8-digit) trade reporting system of the EU. See GOPA Consortium (2011). Accompanying developing countries in complying with the Implementation of Regulation 1005/2008 on Illegal, Unreported and Unregulated (IUU) Fishing. Country Profile: Ghana. EuropeAid/129609/C/SER/Multi. January 2011.
- 56 The country of export should be reported in customs data as the flag state of the vessel that caught the seafood. However, as a number of the Ghana-flagged trawlers have been included in the list of authorised establishments for China rather the Ghana, it is possible that exports from these vessels are recorded as imports to the EU from China.
- 57 EJF and Hen Mpoano (2019). Stolen at sea: How illegal "saiko" fishing is fuelling the collapse of Ghana's fisheries. https://ejfoundation.org/reports/stolenat-sea-how-illegal-saiko-fishing-is-fuelling-the-collapse-of-ghanas-fisheries
- 58 European Commission (18.08.19), 'Non-EU Countries Authorised Establishments, Ghana, Fishery Products', accessed 9.7.20 https://webgate.ec.europa.eu/sanco/traces/output/GH/FFP_GH_en.pdf
- 59 Article 15, Regulation (EC) 854/2004.
- 60 Three of the vessels, LU RONG YUAN YU 906, 907 and 908, were listed in China's list of authorised establishments on 29.8.13. Another six vessels, LU RONG YUAN YU 910, 916, 917, 918, 919 and 920, were listed on 7.12.17. The vessels have since been removed from the most recent version of the list dated 14.1.20.
- 61 Fisheries Commission, pers. comm. to EJF, November 2018.
- 62 The website of the European Commission provides the following guidance for inclusion of fishing vessels on a country's list of authorised establishments: "In the case of requests for registration of fishery vessels (factory vessels, freezer vessels and reefer vessels), the request must be accompanied by a copy of the vessel registration document, demonstrating that the flag state of the vessel is the same country as that submitting the request." See: https://ec.europa.eu/food/safety/international_affairs/trade/non-eu-countries_en

- 63 European Commission (15.1.19), 'Non-EU Countries Authorised Establishments, China, Fishery Products', accessed 11.6.19. https://webgate.ec.europa.eu/sanco/traces/output/CN/FFP_CN_en.pdf
- 64 Ministry of Agriculture and Rural Affairs of the People's Republic of China (2018). China Classification Society's 2018 offshore fishing vessel overseas inspection work plan.
- 65 Rongcheng Marine Fishery Co., Ltd. (25.4.15), 'Company leaders go to Ghana for an offshore fishery project', accessed 9.8.18. http://www.rchaiyang.com/news_detail/newsId=30.html. The article states that the company owns 20 large-scale ocean-going vessels in Ghana.
- 66 Republic of Ghana, MoFAD, 'Vessel Registry', https://www.mofad.gov.gh/publications/statistics-and-reports/vessel-registry/, accessed 23.3.18 and 4.6.20
- 67 EJF (2018). China's hidden fleet in West Africa: A spotlight on illegal practices within Ghana's industrial trawl sector. https://ejfoundation.org/reports/chinas-hidden-fleet-in-west-africa-a-spotlight-on-illegal-practices-within-ghanas-industrial-trawl-sector
- 68 Representative of Shandong Bodelong Group Co. Ltd, pers. comm., 3.12.18.
- 69 Dovlo, E., Amador, K., Nkrumah, B. et al. (2016). Report on the 2016 Ghana Marine Canoe Frame Survey. Fisheries Scientific Survey Division of the Fisheries Commission, Ministry of Fisheries and Aquaculture Development. August 2016.
- 70 Ghana Statistical Service (GSS) (2014), cited in Fisheries Commission (2018). 2018 Annual Report. Ministry of Fisheries and Aquaculture Development. Unpublished.
- 71 United States Department of Agriculture (USDA) Foreign Agricultural Service (2019). Fish and Seafood Report. Global Agricultural Information Network (GAIN) report. https://www.fas.usda.gov/data/ghana-fish-and-seafood-report
- 72 According to the Fisheries and Aquaculture Sector Development Plan for 2011-2016, the average income per canoe declined by 40% over the preceding 10-15 years.
- 73 Lazar, N., Yankson K., Blay, J., Ofori-Danson, P., Markwei, P., Agbogah, K., Bannerman, P., Sotor, M., Yamoah, K. K., Bilisini, W. B. (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. GH2014_SCI042_CRC 22 pp.
- 74 Ibid.
- 75 EJF (2019). Stolen at Sea: How illegal 'saiko' fishing is fuelling the collapse of Ghana's fisheries. https://ejfoundation.org/reports/stolen-at-sea-how-illegal-saiko-fishing-isfuelling-the-collapse-of-ghanas-fisheries
- 76 EJF (2020). The "people's" fishery on the brink of collapse. Small pelagics in landings of Ghana's industrial trawl fleet. https://ejfoundation.org/reports/the-peoples-fishery-on-the-brink-of-collapse-small-pelagics-in-landings-of-ghanas-industrial-trawl-fleet
- 77 Section 132(2)(a) of the 2002 Fisheries Act 625.
- 78 Section 88A of the 2002 Fisheries Act 625, as inserted by the 2014 Amendment Act 880.
- 79 EJF and Hen Mpoano (2019). Stolen at sea. How illegal 'saiko' fishing is fuelling the collapse of Ghana's fisheries. https://ejfoundation.org/reports/stolen-at-sea-how-illegal-saiko-fishing-is-fuelling-the-collapse-of-ghanasfisheries
- 80 Ibid.
- 81 Daily monitoring of saiko landings at Elmina port carried out by EJF.
- 83 Dovlo, E., Amador, K., Nkrumah, B. et al. (2016). Report on the 2016 Ghana Marine Canoe Frame Survey. Fisheries Scientific Survey Division of the Fisheries Commission, Ministry of Fisheries and Aquaculture Development. August 2016.

- 84 EJF and Hen Mpoano (2019). Stolen at sea. How illegal 'saiko' fishing is fuelling the collapse of Ghana's fisheries. https://ejfoundation.org/reports/stolen-at-sea-how-illegal-saiko-fishing-is-fuelling-the-collapse-of-ghanasfisheries
- 85 According to crew members and fisheries observers working on board different industrial trawl vessels interviews conducted by EJF in September 2019 and January 2020.
- 86 Ibid.
- 87 According to the Regulation 12(1)(a) of the 2010 Fisheries Regulations, LI 1968, the use of trawl nets with mesh size of less than 60 mm in stretched diagonal length in the codend is prohibited.
- 88 Interview conducted by EJF in September 2019.
- 89 Lazar, N., Yankson K., Blay, J., Ofori-Danson, P., Markwei, P., Agbogah, K., Bannerman, P., Sotor, M., Yamoah, K. K., Bilisini, W. B. (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. GH2014_SCI042_CRC 22 pp.
- 90 FAO (2019). Report of the FAO/CECAF Working Group on the Assessment of Small Pelagic Fish Subgroup South. Elmina, Ghana, 12-20 September 2018. Rapport du Groupe de travail FAO/COPACE sur l'évaluation des petits poissons pélagiques Sous-groupe Sud. Elmina, Ghana, 12-20 septembre 2018. CECAF/ECAF Series / COPACE/PACE Séries No. 19/81. Rome. http://www.fao.org/3/ca5402b/ca5402b.pdf
- 91 Republic of Ghana, Ministry of Fisheries and Aquaculture Development (MoFAD), 'Vessel Registry', accessed 17.12.19. https://www.mofad.gov.gh/publications/statistics-and-reports/vessel-registry/.
- 92 Ministry of Agriculture and Rural Affairs of the People's Republic of China (2018). China Classification Society's 2018 offshore fishing vessel overseas inspection work plan. See also: http://www.moa.gov.cn/jggk/history02?query=+8projectName=0
- 93 LU RONG YUAN YU 906-910 and 916-920 listed in European Commission (15.1.19), 'Non-EU Countries Authorised Establishments, China, Fishery Products', accessed 11.6.19. Three of the vessels, LU RONG YUAN YU 906, 907 and 908, were listed in China's list of authorised establishments on 29.8.13. The vessels LU RONG YUAN YU 910, 916, 917, 918, 919 and 920, were listed on 7.12.17. The vessels have since been removed from the most recent version of the list dated 14.1.20.
- 94 Republic of Ghana, Ministry of Fisheries and Aquaculture Development (MoFAD), 'Vessel Registry', accessed 17.12.19. https://www.mofad.gov.gh/publications/statistics-and-reports/vessel-registry/
- 95 Ministry of Agriculture and Rural Affairs of the People's Republic of China (2018). China Classification Society's 2018 offshore fishing vessel overseas inspection work plan. See also: http://www.moa.gov.cn/jggk/history02?query=+&projectName=0
- 96 LU RONG YUAN YU 906-910 and 916-920 listed in European Commission (15.1.19), 'Non-EU Countries Authorised Establishments, China, Fishery Products', accessed 11.6.19. Three of the vessels, LU RONG YUAN YU 906, 907 and 908, were listed in China's list of authorised establishments on 29.8.13. The vessels LU RONG YUAN YU 910, 916, 917, 918, 919 and 920, were listed on 7.12.17. The vessels have since been removed from the most recent version of the list dated 14.1.20.
- $\,$ 97 $\,$ Information on the case released by the Western Regional Office of the Fisheries Commission.
- 98 Director, Western Regional Directorate of the Fisheries Commission, speaking on ATL FM on 4.11.19.
- $99 \;\;$ Information on the case released by the Western Regional Office of the Fisheries Commission.
- 100 EJF (2020). 'Trawlers charged with illegal fishing continue to dodge fines in Ghana', EJF, 23 January 2020. https://www.ejfoundation.org/news-media/trawlers-charged-with-illegal-fishing-continue-to-dodge-fines-in-ghana
- 101 According to Ghana's 2002 Fisheries Act, the Fisheries Commission should not recommend the renewal of a fishing licence where a vessel operator has failed to satisfy a judgment for contravention of the fisheries laws (Section 76(1) of the

2002 Fisheries Act, Act 625). The Commission should also refrain from granting an authorisation to a Ghanaian-flagged vessel to fish outside of Ghana's waters, if it has reason to believe the vessel has engaged in IUU fishing (Regulation 24M(a) of the 2015 Fisheries (Amendment) Regulations, LI 2217).

102 Yeboah, I. (31.5.20), 'Marine Police arrest 'notorious vessel' over juvenile fishing', *Graphic Online*, https://www.graphic.com.gh/news/general-news/marine-police-arrest-notorious-vessel-over-juvenile-fish.html

103 Ministry of Agriculture and Rural Affairs of the People's Republic of China (2018). China Classification Society's 2018 offshore fishing vessel overseas inspection work plan. See also: http://www.moa.gov.cn/jggk/historyo2?query=+&xprojectName=0

104 'Non-EU Countries Authorised Establishments, Ghana, Fishery Products', accessed 9.7.20. $\underline{\text{https://webgate.ec.europa.eu/sanco/traces/output/GH/FFP}}_{\text{GH}} = \text{n.pdf}$

105 EJF (2018). China's hidden fleet in West Africa: A spotlight on illegal practices within Ghana's industrial trawl sector. https://ejfoundation.org/resources/downloads/China-hidden-fleet-West-Africa-final.pdf

106 EJF (2018). China's hidden fleet in West Africa: A spotlight on illegal practices within Ghana's industrial trawl sector. https://ehinadial-trawl-sector; Samari, M. (12.9.19), 'Investigation ties foreign-owned trawlers to illegal fishing in Ghana', China Dialogue Ocean, accessed 1.7.20. https://chinadialogueocean.net/10050-investigation-illegal-fishing-in-ghana-pt-1/

107 https://maritime.ihs.com/Account2/Index

108 Samari, M. (12.9.19), 'Investigation ties foreign-owned trawlers to illegal fishing in Ghana', China Dialogue Ocean, accessed 1.7.20.

109 EJF (2018). China's Hidden Fleet in West Africa. A spotlight on illegal practices within Ghana's industrial trawl sector. https://ejfoundation.org/reports/chinas-hidden-fleet-in-west-africa-a-spotlight-on-illegal-practices-within-ghanas-industrial-trawl-sector

110 Ibid.

- 111 Ghana Fisheries Commission, pers. comm. to EJF.
- 112 Section 24 of the GIPC Act, 2013 (Act 865); Taylor Crabbe Initiative (2019). Legal opinion on the engagement of foreign companies in Ghana's industrial trawl sector. https://ejfoundation.org/reports/legal-opinion-on-the-engagement-of-foreign-companies-in-ghanas-industrial-trawl-sector
- 113 As at 30th March 2018 (the most recent list available on the GIPC website): https://www.gipcghana.com/invest-in-ghana/our-businesses/enterprises-with-valid-gipc-certificates.html
- 114 Shandong Zhonglu Oceanic Fisheries Co. Ltd (2015). Annual Report for the Year of 2014.
- 115 Republic of Ghana, MoFAD, 'Vessel Registry', accessed 17.12.19. https://www.mofad.gov.gh/publications/statistics-and-reports/vessel-registry/
- 116 European Commission (18.8.19), 'Non-EU Countries Authorised Establishments, Ghana, Fishery Products', accessed 9.7.20. https://webgate.ec.europa.eu/sanco/traces/output/GH/FFP_GH_en.pdf
- 117 Shandong Zhonglu Oceanic Fisheries Co. Ltd (2015). Annual Report for the Year of 2014.
- 118 Republic of Ghana, MoFAD, 'Vessel Registry', accessed 17.12.19. https://www.mofad.gov.gh/publications/statistics-and-reports/vessel-registry/; European Commission (18.8.19), 'Non-EU Countries Authorised Establishments, Ghana, Fishery Products', accessed 9.7.20. https://webgate.ec.europa.eu/sanco/traces/output/GH/FFP GH_en.pdf
- 119 Shandong Zhonglu Oceanic Fisheries Co. Ltd, 'Yaw Addo Fisheries Co., Ltd,', accessed 9.8.18. http://www.zofco.cn/yawaddofisheriescoltd. The website has since been taken down and is no longer available. An archived version is available at: http://web.archive.org/web/20190201231222/http://www.zofco.cn/yawaddofisheriescoltd See also: http://www.zofco.cn/en/product/yybl/

120 EJF (in prep.). Human rights abuses in Ghana's industrial trawl fleet.

121 Listed in European Commission (15.1.19), 'Non-EU Countries Authorised Establishments, China, Fishery Products', accessed 11.6.19. The vessels, LU RONG YUAN YU 907 and 908 were listed in China's list of authorised establishments on 29.8.13. The vessels LU RONG YUAN YU 910, 916, 917 and 920, were listed on 7.12.17. The vessels have since been removed from the most recent version of the list dated 14.1.20.

122 De Souza, E., Boerder, K., Matwin, S. and Worm, B. (2016). "Improving Fishing Pattern Detection from Satellite AIS Using Data Mining and Machine Learning." PLoS ONE 11(9): e0163760. https://doi.org/10.1371/journal. pone.0163760

- 123 Directorate of Aquaculture and Fisheries, Côte d'Ivoire, pers. comm. to EJF.
- 124 Schedule referred to in Section 81(1) of the Fisheries Act 2002
- 125 EJF Vessel Activity Notification dated 27 November 2017
- 126 MCS Division of the Fisheries Commission, pers. comm. to EJF, May 2018.
- 127 EJF Vessel Activity Notifications dated 31 March 2020 and 3 July 2020.

128 European Commission (18.08.19), 'Non-EU Countries Authorised Establishments, Ghana, Fishery Products', accessed 9.7.20 https://webgate.ec.europa.eu/sanco/traces/output/GH/FFP_GH_en.pdf

129 Anon (14.7.20), 'Illegal saiko fishing continues openly despite government assurances', EJF. https://ejfoundation.org/news-media/illegal-saiko-fishing-continues-openly-despite-government-assurances. Accessed 15.7.20.

130 EJF (2018). The ten principles for global transparency. https://ejfoundation.org/reports/the-ten-principles-for-global-transparency. See also: EJF and Hen Mpoano (2019). Securing equitable and sustainable fisheries: The case for greater transparency in the management and governance of Ghana's fisheries sector. https://ejfoundation.org/reports/securing-equitable-and-sustainable-fisheries-the-case-for-greater-transparency-in-the-management-and-governance-of-ghanas-fisheries-sector

131 See EJF (2018). China's Hidden Fleet in West Africa. A spotlight on illegal practices within Ghana's industrial trawl sector <a href="https://ejfoundation.org/reports/chinas-hidden-fleet-in-west-africa-a-spotlight-on-illegal-practices-within-ghanas-industrial-trawl-sector; EJF and Hen Mpoano (2019). Stolen at sea: How illegal "saiko" fishing is fuelling the collapse of Ghana's fisheries. https://ejfoundation.org/reports/stolen-at-sea-how-illegal-saiko-fishing-is-fuelling-the-collapse-of-ghanas-fisheries

132 Von der Leyen, U. (10.9.19). Mission letter to Virginijus Sinkevičius, Commissioner-designate for Environment and Oceans. https://ec.europa.eu/commission/sites/beta-political/files/mission-letter-virginijus-sinkevicius_en.pdf. Accessed 9.7.20

133 Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL amending Council Regulation (EC) No 1224/2009, and amending Council Regulations (EC) No 768/2005, (EC) No 1967/2006, (EC) No 1005/2008, and Regulation (EU) No 2016/1139 of the European Parliament and of the Council as regards fisheries control.

134 In line with PAS 1550:2017 developed for compliance with the EU IUU Regulation. The PAS 1550:2017 Code of Practice has been developed by industry and civil society organisations to help improve understanding of the EU IUU Regulation and to help the industry adapt their due diligence and risk assessment systems to reduce the risk of supplying or procuring IUU fish, or fish either caught or processed by workers who are not provided with decent working conditions. https://shop.bsigroup.com/ProductDetail?pid=00000000033337167



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