

Dr Andrew F Johnson

Sustainable seafood: China's role in the global ocean



Image © Paul Hilton / Greenpeace

Our demand for natural resources is hastening and deepening many global environmental crises and China's footprint is significant. There is an urgent need for better practices to acknowledge China's legitimate needs, while finding sustainable solutions to them. China Dialogue Ocean aims to investigate, analyse, report and illuminate China's role in the global ocean. After a two-year project to examine fisheries and a range of other human pressures on the marine ecosystem, what lessons have we learned?

20 October 2020



China Dialogue Trust is a UK registered charity, with offices in London and Beijing, that researches, writes, commissions, edits and publishes news, reports and analysis of climate change and environmental affairs, with a special focus on China, stimulating the exchange of information and ideas – in multiple languages – between readers in diverse geographies. Its outlets include websites dedicated to specific regions or topics, including China Dialogue (energy, climate, biodiversity), China Dialogue Ocean (the global ocean crisis), Diálogo Chino (the China-Latin America relationship) and The Third Pole (the Himalayan watershed).

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ACKNOWLEDGEMENTS

The author is grateful to Jessica Aldred for her direction and focus in commissioning and editing this report. The author would also like to thank Tallulah Staple for her orchestration and logistical inputs, Sophie Bauer, Lushan Huang, Joe Coroneo-Seaman and Ned Pennant-Rea for their comments on graphic and statistical components of the report and editorial assistance, and Carly Rose Taft of PactMedia.org and Harry Zhang for their graphic design skills.



Foreword

For around five centuries, we thought of China predominantly as a land-based power. It had a substantial coastline, important trading ports and its fishermen sailed its coastal waters, but since the end of Admiral He's legendary Ming Dynasty voyages, Chinese vessels were rarely seen much further afield.

The change, when it came, was rapid and on a breathtaking scale. China's huge merchant fleet now carries its manufactured goods across the world and its distant water fishing fleet is the world's biggest, found in every part of the ocean.

It is often said that the global ocean's troubles begin on land, and this includes China. It is one of the major sources of marine plastics and by far the world's biggest source of greenhouse gases, which contribute to ocean acidification and rising ocean heat levels. Add to that China's role today as the biggest consumer and processor of seafood and the centre of the world's biggest aquaculture industry, and it is clear that the ocean's growing troubles cannot be effectively addressed without China.

China Dialogue Ocean, founded in 2018, builds on the principles that have guided chinadialogue.net for 15 years: that the collaborative solutions essential to resolving common problems demand good information – even-handed, accurate and well-sourced reporting and analysis – to shine a light on the issues and to inform the search for remedies. Publishing in Chinese and English, into and from China, we illuminate problems, shed light on key questions of policy and practice, share the best ideas and report inspiring successes.

Saving the global ocean will require many hands. We offer our contribution in support of all who are part of the effort.

Isabel Hilton

Chief Executive Officer & Founder - China Dialogue

Executive summary

The global ocean, and the fisheries that feed 3 billion people globally,¹ are in bad shape. Many factors contribute to the current ocean crisis, namely unsustainable exploitation, criminal activity largely in the form of IUU (illegal, unreported and unregulated) fishing, climate change, ocean acidification and marine pollution. While many nations have historically contributed to the current crisis, China has rapidly become one of the world's most powerful ocean players. In recent years, China has become the biggest consumer and processor of seafood,² host of the biggest aquaculture industry³ and the largest source of ocean plastics.⁴

Faced with severe pollution and declining fish stocks in its own coastal waters, under the Xi Jinping administration, China has adopted a domestic policy of “eco-civilisation” that prioritises environmental issues in-country and is actively working to develop circular economy theory into practical policy. However, China has also built and subsidised the world's largest distant-water fleet (DWF)⁵ for fishing with the official declared ambition to be a global marine power. In late 2018, China's vice minister for agriculture, Yu Kangzhen, stated that China's DWF and its state-backed policy of building seafood-processing plants in Belt and Road countries, especially Africa, was “*key to bolstering China's food security*”. Poor regulation, weak enforcement, and a recent legacy of IUU fishing activity have made China an unsustainable ocean player, pursuing short-term benefits at the expense of long-term sustainability, attracting increasing international criticism.

For the past two years, China Dialogue Ocean's Sustainable Seafood project has worked hard to objectively investigate, analyse, report and illuminate China's role in the global oceans. Reporting through its pioneering bilingual platform chinadialogueocean.net, the project leverages China Dialogue's existing resources, networks and partnerships to focus on a dedicated, global investigative effort and narrative on ocean governance and policy, as well as legal and regulatory frameworks aimed at the sustainable use of ocean resources. The two-year project has generated 43 geographically diverse, in-depth investigative reports written by a broad network of journalists and marine experts, supported by context-rich graphics and multimedia content. It has also produced two workshops attended by world experts in ocean sustainability issues.

The stories produced by China Dialogue Ocean's editorial team have recognised China's legitimate needs, but also firmly acknowledged they will not be met in the future without urgent attention to reform and sustainability, particularly if predatory and illegal practices that damage the long-term interests of China and other countries continue. The year 2020 was tipped to be a pivotal year for the ocean⁶ but because of the coronavirus many key negotiations and events have been postponed until 2021. Outcomes from the WTO's fishery subsidy negotiations along with China's engagement in the UN's High Seas Treaty and the ratification of the Port State Measures Agreement will all be landmark indicators of China's drive to become a global

leader in ocean sustainability. This would be a vastly different position to where it sits now as the worst performer in a global IUU index, the largest funder of DWF subsidies and the country with by far the most DWF vessels in total and DWF vessels on the IUU list.

China needs to reconsider its DWF activities given that catch from the sector makes up only 6.6% of the country's domestic seafood, relies heavily on subsidies, and creates huge international criticism of poor practices and often illicit behaviours. China must make strides towards improved practices if it is not to keep appearing in international press headlines as a repeat offender. Considering the speed of technological advances that have opened new possibilities to detect and record IUU activity, China will face increasing pressure to improve its fisheries behaviour. This pressure will hopefully bring positive change in the form of regulatory reform, more vigorous implementation and increased exposure of companies and people that engage in illicit activities.

Many long-term solutions to current ocean-related environmental problems will rely on international collaboration in which China needs to play a leading role. Given China's central position in the global fishing industry, it has an historic opportunity to provide leadership, but the steps it is taking must be taken more quickly.

Sustainable seafood: China's role in the global ocean

Image: Marie-France Latour / Unsplash

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Introduction

China Dialogue Ocean's Sustainable Seafood project

China Dialogue Trust's network of websites promotes communication across barriers of language and culture on environment and climate change to inform, educate and build a global consensus for equitable and constructive solutions to urgent environmental problems.

The scale of impact of China's demand on global resources in recent years has affected natural resource markets globally. China has had significant impacts in two key areas that have quickly become sustainability challenges with global implications: 1) China's demand for soy which has driven high rates of deforestation and 2) China's role in the oceans driven by an increasing appetite for seafood. In these arenas there is an urgent need for better practices to acknowledge China's legitimate needs, while finding sustainable solutions to them.

China Dialogue Ocean specifically tackles this second arena. It aims to objectively investigate, analyse, report and illuminate China's role in the global oceans. Reporting through its pioneering bilingual platform chinadialogueocean.net, the Sustainable Seafood Project leverages China Dialogue's existing resources, networks and partnerships to focus efforts on a dedicated, global investigative effort and narrative on ocean governance and policy, as well as legal and regulatory frameworks aimed at the sustainable use of ocean resources. The two-year project has generated 43 geographically diverse, in-depth investigative reports written by a broad network of journalists and marine experts, supported by context-rich graphics and multimedia content. It has also produced two workshops attended by world experts in ocean sustainability issues.

This report examines the substantial progress that the Sustainable Seafood project has made over the last two years, summarising understanding around China's role in the global oceans, highlighting key patterns and trends, demonstrating China Dialogue Ocean's reach and impact in ocean-related reporting and discussing sustainability challenges and opportunities moving forward.

Our ocean

The global ocean, and the fisheries that feed 3 billion people globally,⁷ are in bad shape. Many factors contribute to the current ocean sustainability crisis, namely unsustainable exploitation, criminal activity largely in the form of illegal, unreported and unregulated (IUU) fishing, climate change, ocean acidification and marine pollution. The warning signs are evident and have been highlighted by the scientific community, in some cases for decades. Declining populations of fish,⁸ increased acidity levels in marine waters⁹ and large-scale coral bleaching events¹⁰ are just some of the signs that indicate our current use of ocean resources and our impacts on the marine ecosystem need drastic re-evaluation.

The value of the oceans to humankind is fundamental: fish is a more important source of protein than beef in terms of nutritional value and total consumption, the global ocean helps absorb much of the effects of greenhouse gases, and we have barely begun to understand the potential of marine life to supply pharmaceuticals and other technological opportunities. Only if urgent and effective action is taken to protect our ocean and to restore it to health will it continue to provide the world's populations with these critical

Introduction

services. At present, however, ineffective, overlapping, and conflicting governance regimes are failing to address even the most basic abuses to ocean resources. One broad objective must be to reverse predatory exploitation and build robust, comprehensive programs that support sustainable practices over the long term.

While many nations have historically contributed to the current crisis, China has rapidly become one of the world's most powerful ocean players. In recent years, it has become the biggest consumer and processor of seafood,¹¹ host of the biggest aquaculture industry,¹² the largest source of ocean plastics,¹³ owner of the world's largest distant-water fleet (DWF).¹⁴ Most importantly of all, it has come to be seen as a driver of global IUU fishing.¹⁵



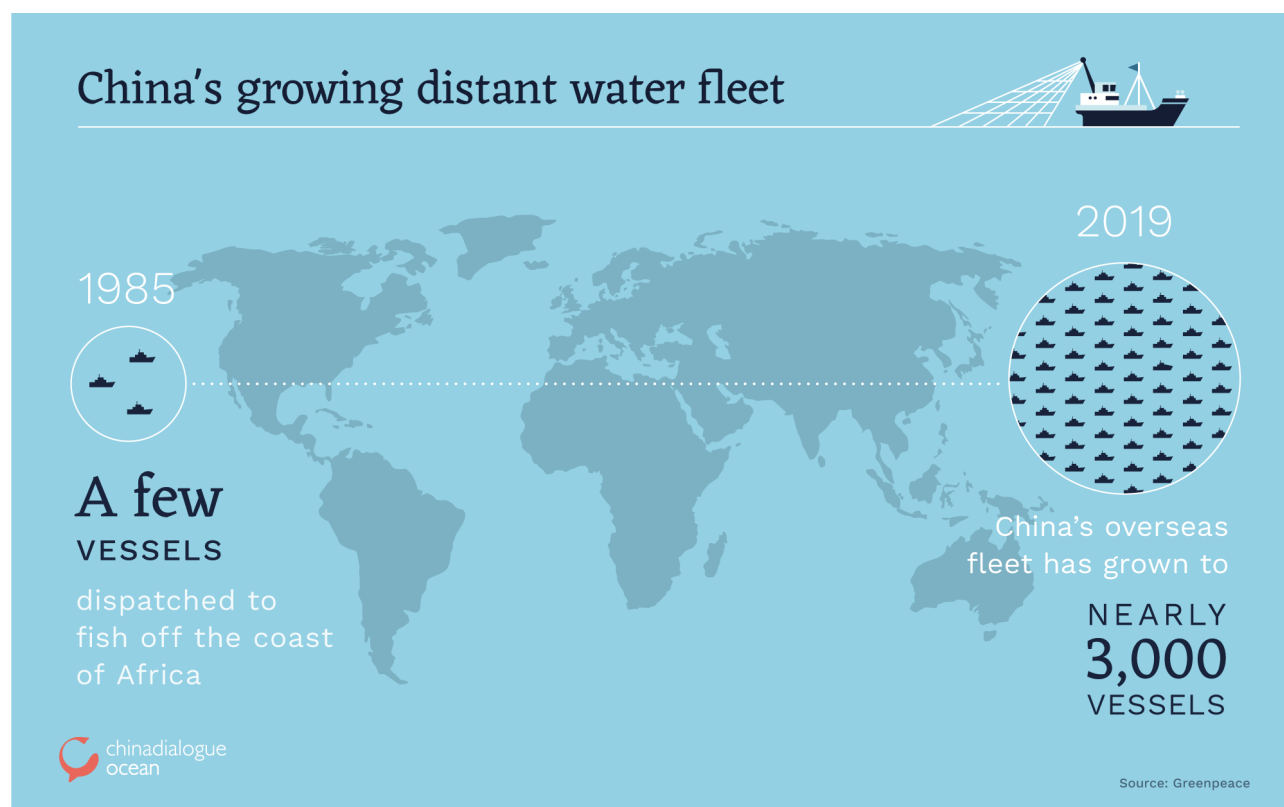
China's ocean dominance

China's ocean dominance

Faced with severe pollution and declining fish stocks in its own coastal waters, China has built and subsidised the world's largest distant-water fleet (DWF)¹⁶ with the official declared ambition to be a global marine power. In late 2018, China's vice minister for agriculture, Yu Kangzhen stated that China's DWF and its state-backed policy of building seafood-processing plants in Belt and Road countries, especially Africa, was “*key to bolstering China's food security*”. Below, I summarise the stories published under the China Dialogue Ocean Sustainable Seafood project. I highlight that China's influence on the ocean is expansive and far greater than their closest competitors, as well as stories of conservation success and ways forward to help solve some of the ocean's environmental challenges.

The distant-water fleet

China dramatically expanded its DWF capacity under its 12th Five Year Plan. In that top-level policy blueprint for 2010-2015 it increased by 46% the number of fishing companies licensed by the agricultural ministry to operate internationally. This amounted to a 66% increase in the number of distant-water vessels. In 2019, China boasted 2,709 distant-water fishing vessels with a total catch of around two million tons, a number that only represents 6.6% of China's seafood production (2017).¹⁷ Of this catch, 60% was sold on Chinese markets while the remaining 40% was sold internationally. More recently, China has set a goal to encourage its DWF to bring back at least 65% of its catch to meet domestic demand and set a target to catch 2.3 million tons by the end of 2020.



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In 2016, Chinese fishing boats accounted for 17 million of the 40 million fishing hours performed worldwide by large ships, more than the 10 next biggest countries combined.”¹⁸

Unsustainable practices and continued subsidies

Despite the UN sustainable development goal to end them, harmful fishing subsidies have increased as a proportion of the global total.¹⁹ In 2018, China spent US\$5.89 billion on subsidies that scientists judge to be “harmful” – those that increase the catch capacity of fishing fleets. That equated to 17% of all fishing subsidies that year, an overwhelming proportion of which go towards fuel to help DWFs fish further, harder, deeper and for longer. This was more than double the expenditure of the next biggest player, the European Union (EU), that spent US\$2.04 billion. China’s reliance on such subsidies to keep its DWF afloat is therefore obvious and China has much to lose dependent on the outcome of the target to end these harmful payments.²⁰

Examples of harmful subsidies



Port construction
& renovation

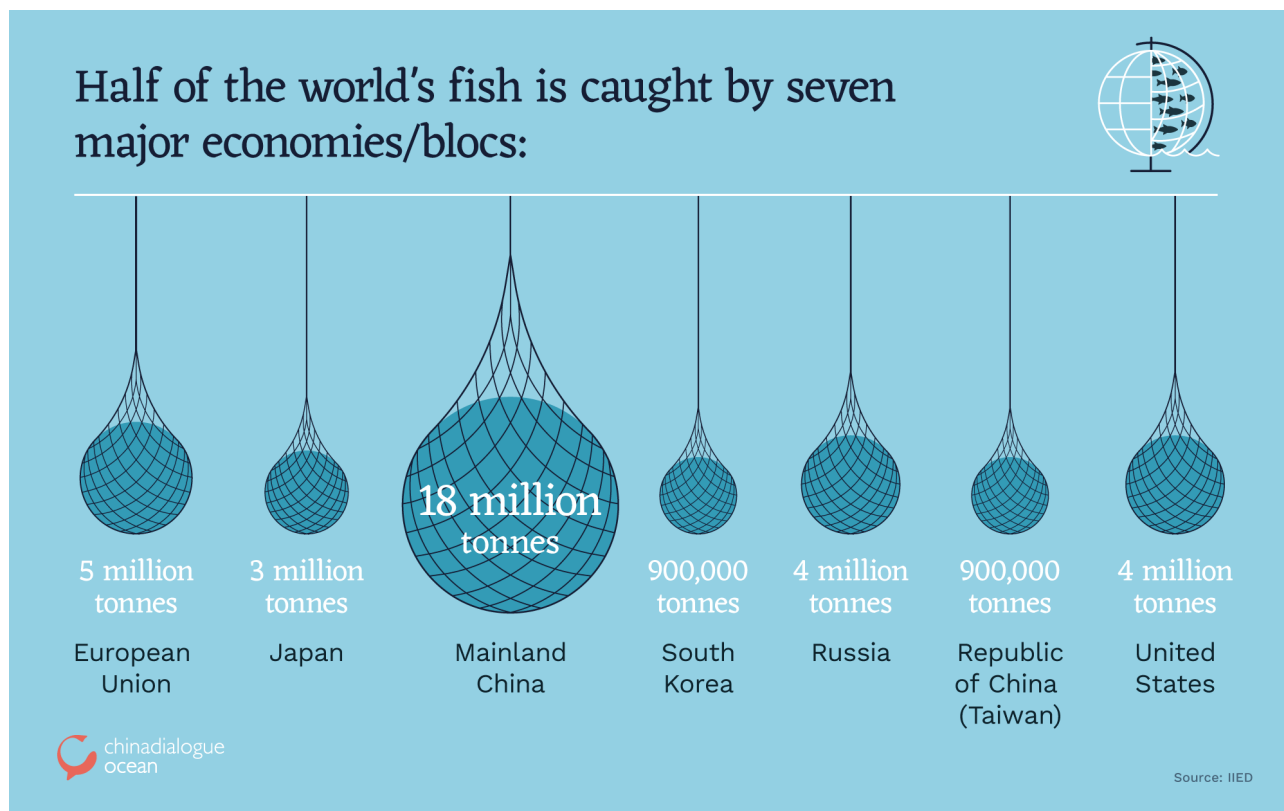


Fuel tax
exemptions



Boat construction
& modernisation

As leader of the pack both in terms of size of its DWF and its expenditure on subsidies, the stakes are clearly high for China as the World Trade Organisation (WTO) negotiates to end harmful fishing subsidies (its 2019 deadline has already been missed). Peter Thomson, the UN special envoy for the ocean, noted: “The ball is in the WTO’s court,” in early 2019. “We have entered the year in which the bulk of the game must be played. Thus, 2019 is effectively the year in which we will win or lose our long struggle to rid global fisheries of harmful subsidies”.²¹ After failing to reach agreement by December 2019, hopes were pinned on a WTO June meeting in Kazakhstan. That meeting was cancelled due to Covid-19, and ongoing disruption from the pandemic makes it even less likely that a deal will be made this year, as reported by Fermín Koop in June 2020.²²



A coronavirus slowdown?

As well as holding up global fishing subsidy negotiations, the coronavirus also appears to have slowed fishery surveillance and monitoring. This is particularly so for the South Pacific, where many of the region's 600 fisheries inspectors have stayed firmly onshore due to the risk of infecting fishing crews.²³ This lack of monitoring cover means it is unknown if fishing vessels are complying with regulations such as those that prohibit the use of fish aggregation devices (FADs) during certain times of the year, or bans on illegal, but lucrative, shark fishing.

A China Dialogue Ocean interview with Tang Yi, dean of the College of Marine Culture and Law at Shanghai Ocean University, in September of this year, made it clear that the pandemic has done little to dampen the efforts of China's DWF: "For distant-water fishing fleet, there is no information showing that their fishing activities were seriously affected". This corroborates China's Ministry of Agriculture and Rural Affairs that issued a late March 2020 bulletin about the pandemic's impact on fishing: "With the improvement of the domestic situation in the prevention and control of the... epidemic, ocean-going fishery companies have resumed work and production... Recently, ocean-going fishing boats have set off in large numbers for production in ocean-going fishing grounds, and signs of illegal production have begun to appear." China's international industrial fishing presence is clearly both expansive and relentless. As many of the articles published under the Sustainable Seafood project highlight, these operations are fraught with illegality and – where legal – unsustainable practices.

Illegal, unreported and unregulated fishing

With the extensive reach and productivity of China's DWF comes significant scrutiny. China Dialogue Ocean has focused considerable editorial efforts on examining China's role in alleged illegal activity off the west coast of Africa, a hotspot where an estimated one in four catches are hauled illegally.²⁴ Reporting under the Sustainable Seafood project has included stories from Nigeria, Ghana, the Gambia, Sierra Leone and Liberia.

Illegal fishing activity in these countries is heavily dominated by Chinese-owned vessels. In 2018, the Nigerian navy declared that US\$70 million is lost annually to Chinese trawlers fishing illegally in its waters.²⁵ China Dialogue Ocean revealed that this problem is compounded by trade flows in the other direction that saw \$42 million worth of fish sold to Nigeria in 2017 to help plug a two million tonne supply gap. This has significant secondary impacts of undercutting local markets and perpetuating problems of low catch and poor market sales for the country's small-scale and artisanal fishing fleets. Reports on the arrival of Chinese supertrawlers seeking licences to fish on a huge scale in Liberia, and illegal saiko fishing in Ghana which costs the country tens of millions of dollars each year, tell a similar story.

Understanding the importance of balanced reporting, China Dialogue Ocean and its Sustainable Seafood project has highlighted positive stories from the region. These include stories on countries such as Sierra Leone, which has taken steps to tackle overexploitation by introducing a one-month industrial fishing ban, and the Gambia's collaboration with Sea Shepherd. The story on the Gambia, published in July, highlights the benefit of joint patrol campaigns between international conservation agencies and countries which struggle to tackle industrial vessel incursions into restricted fishing areas.

Writing about China's ranking as the "worst performer" in a global IUU index published in early 2019,²⁶ Gilles Hosch, one of the authors of the report, highlighted exactly where China fails while highlighting opportunities for change: "On the international stage, China – as a flag state – has an immediate stake, responsibility and duty to act firmly and with resolve to fishing vessels flying its flag, including under the auspices of regional fisheries management organisations, and more generally under the provisions of international law, ensuring that their operations comply with applicable norms and rules."

China's steps towards closing ports to illegal fishing activity will be steps in the right direction, but signing the Port State Measures Agreement (PSMA), a UN treaty that requires countries to close their ports to illegal fishing vessels, is yet to happen. Dawn Borg Costanzi at Pew's international fisheries program told China Dialogue Ocean that "neighbouring countries have already signed up to the PSMA so we need to close off the remaining gap as it's important that they cannot look to China as a lax port they can enter with their IUU-caught fish".²⁷

From an op-ed written by Costanzi in mid-2019,²⁸ it is clear that with coordinated effort countries can make gains in the fight against IUU. However, initiatives need to be run at national, regional and global scales to really begin to close the door on a multibillion-dollar-a-year illicit industry. So far progress has been painstakingly slow and China is certainly one of the nations criticised for having its foot jammed firmly in the door.

Bilateral agreements and infrastructure investment

As part of China's DWF expansion, Chinese fishing companies have invested in building new vessels to target specific coastal fisheries in the exclusive economic zones (EEZs) of other countries with which China has bilateral fishery access agreements. The details of such bilateral agreements, which often negatively impact national coastal fishing and overall stock levels are, however, rarely published. There is also

close to no coverage of local corruption in the allocation of licences and little coverage in Chinese media of Chinese involvement in IUU fishing in the territorial waters of other countries. These are important knowledge and reporting gaps that China Dialogue Ocean has begun to fill through its reporting and associated social media presence.

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China's fishing fleet is considered one of the most predatory in the world”²⁹

Carlos Mazal of the Uruguayan Center for International Relations

At present, China fishes in the EEZs of 42 countries thanks to more than 160 Chinese companies with bilateral access agreements. While many of these countries willingly agree to allow China into their waters to fish, a lack of capacity in-country means that rules are easily broken. In a 2018 interview,³⁰ Dr Ife Okafor-Yarwood, a maritime governance and security expert noted: “The department of fisheries cannot engage in pursuit because they do not own [an effective] patrol vessel,” speaking about Nigeria's maritime enforcement capacity. Later in 2018, the Nigerian government approved the purchase of two patrol boats for the department of fisheries “to monitor unreported, unregulated and illegal fishing by Chinese vessels”, according to local media outlet the New Telegraph. But Okafor-Yarwood remains worried that without the right training to recognise and collect evidence on fisheries crimes, the vessels that will be manned by the navy will prove of limited use. Often, moving policy and the fight against IUU in the right direction is also complicated by corruption and weak enforcement capacity in countries targeted by China's powerful fishing fleets.

Importantly, China Dialogue Ocean has made extensive efforts to go beyond reporting from the top-down, taking birds'-eye views of the problems related to China's fishing activities, to look also at the perspectives and impacts on local communities. One example is the questions raised over the Chinese tuna agreement with Somalia, signed in December 2018 by the Somali minister of fisheries.³¹ The new deal saw Chinese companies pay a total of US\$1 million to fish 24 nautical miles from shore. Local people, however, were concerned about the local authorities' ability to monitor the catch.

Fish industry and trade

China Dialogue Ocean has highlighted that China's fisheries presence, in many instances, stretches onto land. Many of China's fishing companies have expanded their operations by building ports, processing facilities and logistic hubs. These ventures are often reported in Chinese media as aid projects that support the host country in the exploitation of its resources.

An investigative story run in late 2019³² highlights the Gambia's struggle with Chinese investment in fishmeal and fish oil (FMFO) processing plants that threaten the country's food security. The promise of jobs for locals has not materialised, and resistance is growing amid overfishing and pollution that is blighting the country's tourism industry. West Africa now has as many as 50 fishmeal plants, many of them built to meet China's soaring demand for FMFO, which is largely used to feed farms both on land and at sea.

While China's appetite for seafood is clear, China Dialogue Ocean's reporting has focused on China's impacts on export markets as well as imports. Kenya's struggles with Chinese tilapia that significantly undercut the local fish sector³³ highlight how China's impacts in West Africa work both ways. Appetites in China for shrimp have meant good business for Ecuadorean aquaculture firms, with 61% of the country's exports destined for the Chinese market.³⁴ But similar pressure on wild stocks does not paint a rosy picture for countries supplying China. Chinese markets for swim bladder (otherwise known as fish maw) threaten the Nile perch in West Africa³⁵ and the totoaba in Mexico with extinction. The latter also has pressing secondary consequences with its direct correlation to the bycatch of the critically endangered vaquita porpoise,³⁶ which has an estimated population of 19 or less.³⁷

Understanding such secondary consequences of China's prevalence in global fisheries and fish markets has taken China Dialogue Ocean coverage to South America to report on China's extensive investment in the region. These stories include a Uruguayan port that sparked controversy over its likely impacts on marine biodiversity and public lands,³⁸ as well as China's new interest in Brazil's oil fields near its Abrolhos marine protected area.³⁹

Aquaculture expansion

A final arena with important environmental impacts, reported on by China Dialogue Ocean, is China's substantial aquaculture industry. With China's coastal habitats all but spent, the industry is increasingly seeking investment opportunities further offshore and abroad. This was highlighted in the July 2019 China Dialogue report "Moving aquaculture out to sea could rescue coastal ecosystems",⁴⁰ which noted that fish ponds have scarred coastal environments across Asia and that China was no exception, having lost 80% of its coral reefs, 73% of its mangroves and 57% of its wetlands since the early 1950s.

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Aquaculture offshore is a must-do to rescue China's collapsing wild fisheries”⁴¹

Songlin Wan, lead strategist of the Aquaculture Stewardship Council for China and South and East Asia.

While there is much to be said for aquaculture, the industry faces numerous sustainability challenges including increasing levels of disease, escapee competition with wild stocks, coastal habitat destruction and increased pressures on wild-caught fish used to feed farmed species. Based on China's track record of intensive farming practices, global natural resource exploitation and large-scale investments in foreign markets, it therefore will likely not be long before China's global aquaculture exploits begin to ring alarm bells internationally.

II

Signs of change from China



Domestic change

Under the Xi administration, the Chinese government has adopted a domestic policy of “eco-civilisation” that prioritises environmental issues in-country and is actively working to develop circular economy theory into practical policy. China has already taken measures to build a coastal “eco-civilisation” to support the recovery of its coastal waters. The government is cracking down on illegal land use and illicit shrimp farms and improving land-based policy initiatives to reduce pollution. Work to restore coastal biodiversity by sinking artificial reefs, and plans for large-scale marine ranches and offshore aquaculture production to help satisfy domestic seafood demands, are also well underway.

Change in China's domestic fisheries is evident with large-scale retirement of many domestic vessels, and increased enforcement of coastal fishing closed seasons. China has also reported that in the year 2017, 30,000 unlicensed ships were banned from activities in its coastal waters and nearly one million pieces of illegal fishing gear were confiscated as coastal law enforcement was stepped up. Although the country has also pledged to reduce fuel subsidies for domestic fishing by 40%, all eyes are on China's DWFs and the WTO subsidy negotiations which for now have become text-based following disruptions from the pandemic.⁴²

International change

Although it is easy to paint a bleak picture about the future of China's international maritime exploits, the picture is not without hope. In December 2017, at the World Trade Organisation meeting in Buenos Aires, China promised to freeze its DWF size, and under the 13th Five Year Plan for DWF development, published in 2016, stated the intention of capping the fleet at no more than 3,000 vessels by the end of 2020. Under the plan, no permits for new companies of fleets will be issued. China's target of limiting the number of DWF vessels appears to have been met so far, yet the impact of this on global fish stocks is uncertain, since both the size and capacity of the vessels in China's distant-water fleet have increased.

Frequent disputes and international pressure over IUU activities have finally obliged China to take action, including sanctioning some IUU malefactors. In 2017, a new DWF Personnel Blacklist System introduced penalties for captains and company managers who engage in IUU fishing. Once on the blacklist they are banned from fishing for a period and the captain loses their licence. Since the introduction of the blacklisting, Beijing has withdrawn approximately US\$105 million in subsidies from 264 DWF vessels operated by 78 companies. In March 2018, China cancelled the DWF certificate of a Chinese company caught IUU fishing in West African waters, and has since cancelled fuel subsidies for vessels operated by two other major fishing companies. China Dialogue Ocean has been keen to report on these positive steps forward to balance the outlook which many argue is still uncertain.

China's positive steps have continued. At the beginning of this year, China further revised its fisheries law, to strengthen penalties and enforcement capacity against IUU fishing. These measures include closer monitoring of vessel movements with more severe penalties for evasive measures, such as turning off location transponders, mandatory reporting of transshipment at sea and warnings for fishing in prohibited areas. China has also stepped up its supervision of foreign vessels using Chinese ports – something many hope hints at China soon ratifying the PSMA. China's signing of the Torremolinos agreement, which outlines regulations designed to protect the safety of crews and observers onboard fishing vessels of 24 metres in

Signs of change from China

length and over, also points towards positive change for China and intentions to sign the PSMA. During the Torremolinos Ministerial Conference held in October 2019, China was also one of 48 countries to sign a public declaration to ratify the Cape Town Agreement to promote vessel safety, regular inspections and mandatory radio communications to increase transparency, which will come into force by October 2022.

China's role in Antarctic waters is significant. It is a major krill fishing nation, and therefore plays a key role in marine conservation in the Southern Ocean. In 2018, the state-owned China National Fisheries Corporation (CNFC) along with the four other largest krill fishing companies, agreed to stop fishing for krill in the "ecologically vulnerable" waters off the Antarctic Peninsula starting 2020. Although China, along with Russia, has historically not supported expansions of MPAs in the Antarctic region, likely due to fear of losing fishing rights, many hope that the next Committee for the Conservation of Antarctic Marine Living Resources (CCAMLR) meeting, on 26-30 October, will see a breakthrough.⁴³

As Global Fishing Watch CEO Tong Long explored in an article republished on China Dialogue Ocean,⁴⁴ 2020 was set to be a pivotal year for the ocean. Although the coronavirus pandemic has put many global meetings, negotiations and ocean-related events on hold, it would appear China is moving in the right direction, albeit a little slowly.

Aside from China-centric stories, the Sustainable Seafood project has also covered some important subjects relevant to global marine protection and ocean conservation.

Marine protection, conservation and enforcement

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This is a modelling exercise that shows managers of a fishery could optimise catches with periodic closures and re-openings. However, the focus is solely on the target species.”

Professor **Callum Roberts**, Exeter University, UK, speaking about a 2019 study that assessed the viability of periodically harvested fishery closures.⁴⁷

To ensure unbiased, balanced reporting, the Sustainable Seafood project has reported on several success stories in global marine protection and conservation.

In July 2019, journalist David Adam reported on a study⁴⁵ showing temporary fishing bans – which are easier to secure than permanent bans – could protect fish stocks.⁴⁶ To maintain objectivity, Adam also spoke to critics of the study who noted that such closures will not adequately conserve marine habitats over the long term.

In February 2020, Adam also reported on a study⁴⁸ that undertook a comprehensive health assessment of the world's fish populations.⁴⁹ The data paints an improving picture, with many fisheries now able to provide a sustainable catch. In an interview with China Dialogue Ocean, lead author of the study, Professor Ray Hilborn commented: “There is a narrative that fish stocks are declining around the world, that fisheries management is failing, and we need new solutions. And it's totally wrong... Fish stocks are not all declining around the world.

They are increasing in many places, and we already know how to solve problems through effective fisheries management.” Although Hilborn is optimistic, Adam noted that the health of many Asian fisheries remains unclear and continued efforts are required to further drive the positive change noted in the study.

China Dialogue Ocean’s reporting has also covered initiatives that may be considered less traditional but nonetheless promising for the conservation of fish populations and marine biodiversity. Scientist Jean-Baptiste Jouffray, from the Stockholm Resilience Centre, Sweden, wrote about his work⁵⁰ using sustainability criteria in bank loan agreements and stock exchange listings to help save ocean life.⁵¹ Jouffray admits that finance could be a major force in promoting a transformation towards ocean sustainability, but the jury is still out on whether such change will happen any time soon.

Three potential levers for improving the seafood industry

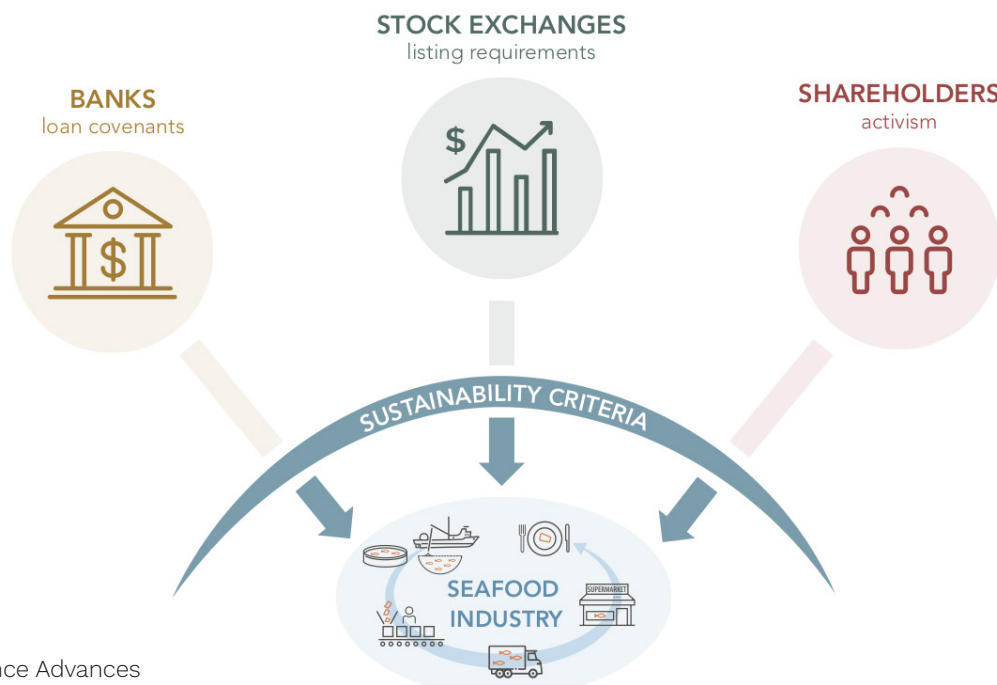


Image: Science Advances

Finally, as part of China Dialogue Ocean’s drive to report on both negative and positive ocean stories, two articles stand out and reveal significant promise. The first is Todd Woody’s report on the use of artificial intelligence (AI) to identify trawlers in Africa.⁵² The report covered a new study⁵³ lead by Dyhia Belhabib, principal investigator at Ecotrust, Canada. Woody writes how the use of satellites and AI can help pinpoint and understand the movements of foreign fleets exploiting fish stocks in waters of African nations. The technological innovations led by Global Fishing Watch⁵⁴ can now single out industrial trawlers operating unlawfully in inshore waters that are supposed to be reserved for small-scale artisanal fishers. Global Fishing Watch’s director of research and innovation, David Kroodsma, said: “This is the first time we’ve looked at likely illegal activity around an entire continent”. The technology and methods used by Kroodsma’s team show significant promise in the fight against IUU and already their work highlights that the extent of the problem is worse than expected for some areas. For example, 93% of industrial fishing in Somalia between 2012 and 2016 occurred in an area closed to industrial vessels – a zone stretching 24 nautical miles from the shore, which had been set aside for small, local fishing boats. The study importantly points out that all the trawlers were flying South Korea’s flag. Incursions into closed areas elsewhere around the continent were also dominated by the EU (Greece and Spain) and China.

Signs of change from China

Soon after this report, Belhabib reported on the Spyglass⁵⁵ initiative that she leads through Ecotrust Canada, which publishes the criminal records of fishing vessels and seafood companies.⁵⁶ The Spyglass platform aims to help surveillance departments, NGOs and governments focus their efforts on high-risk vessels, sanction them more effectively and improve monitoring efforts. It brings to light information otherwise hidden by layers of bureaucracy, language barriers and confidentiality constraints. Belhabib notes that with Spyglass, the most vulnerable countries can now access information on the risk of illegal fishing by a vessel or company and on the presence of a repeat offender. This will help systematically reduce illegal fishing and criminal activity of large-scale vessels and help understand the drivers behind small-scale illegal fishing.

Since its launch at the end of 2019, Spyglass has already helped Senegal's Department of Surveillance obtain information on a fleet seeking access to its fishing grounds. The department sanctioned every vessel for under-reporting their capacity, a behaviour that frequently goes unpunished, especially when the resources to verify such information are virtually non-existent. Spyglass now has more than 7,400 entries, making it the largest repository of information around criminality in the fishing sector.

Technologies and innovations such as Global Fishing Watch and Spyglass show considerable promise in the fight against IUU fishing. They give officials and other regulators important tools to combat the marine crime that robs their citizens of food, livelihoods, and in some cases lives, while also providing new avenues to wider-scale solutions that get to the heart of problems of overexploitation, corruption and poor governance.



Patterns and trends for China



The China Dialogue Ocean Sustainable Seafood project has produced 43 articles over the last two years of reporting. These reports have covered a diverse array of China-related topics from IUU fishing to bilateral trade agreements and aquaculture. The diversity of topics covered paints a clear picture of China's extensive role in the global ocean. Drawing on interviews with key experts and peer-reviewed published literature, several other patterns and trends regarding China's maritime role are clear. Below, I summarise the nuances that are more related to China's approach to marine resource exploitation than to the specifics of its maritime activities.

Domestic progress, foreign destruction

China appears to have turned the tide on poor practices and environmental destruction along its own coastline with many plans in place to move back towards marine resource sustainability. China's DWF and industrial activities outside its domestic waters, however, appear to be slower to take heed of the local environmental damages inflicted. Some argue this is a case of "out of sight, out of mind" – in which impacts occurring away from one's own doorstep are more difficult to recognise and therefore ignored. Others would argue that China is only abiding by local laws, or exerting its right to fish just as other nations have done historically. For now, China appears adamant to act proactively in its domestic interests while appearing to leave its international behaviours to lag behind significantly.

Sidestepping, opacity and silent negotiation

Even where positive change from China has been reported, there is a feeling of side-stepping and a lack of transparency. For example, although China has put a cap on the size of its DWF, it would appear that this pause in growth may well be matched by increased investments in vessel size and technology, potentially nullifying any benefits from reduced fleet numbers. China's apparent secrecy in flagging and re-flagging of vessels continues to be a largely unquantifiable problem that is exacerbated by China's DWF focus on nations that are ill-equipped to monitor or enforce any infringements in their waters. This opacity has become entrenched in western minds as China's politicians do not customarily make public comments, something highlighted in the "Reporting on China's fisheries" workshop held by China Dialogue Ocean and attended by the journalists of the Environmental Reporting Collective.

China's requests at WTO subsidy negotiations to remain classified as a developing nation – despite being the world's second-largest economy – also mean it is awarded differential treatment. This has great significance considering China's huge investments in DWF subsidies and its record of illicit fishing behaviour in the waters of other nations and on the high seas. Not only does such behaviour highlight potential issues of side-stepping, but they also remind us of China's role as a key strategist in global processes.

A flexible strategist

China's strategies relating to natural resource extraction at least appear to be more transparent than data on its international trade and exploitation activities. The trade of seafood products that consistently undercuts local markets in developing nations and its expansion of fisheries-related infrastructure that promotes local reliance on Chinese business makes it clear why many believe China is a predatory force that preys on the weak. This is again highlighted when looking at China's DWF activities, many of which operate under bilateral trade agreements, but still show illegal behaviour that goes unchecked by the partner nations which often lack monitoring, control and surveillance capacities.

Continued large-scale, long-term investments and financial support in exchange for access to resources or markets, particularly in South America, also echo suggestions of long-term geopolitical strategies. China's ability to adapt to the political characteristics of each country with which it deals shows considerable flexibility and intelligence. Some believe this is now beginning to drive losses in political autonomy in these countries who become increasingly dependent on China's financial help.

Relentless and large scale

China's impact on the ocean is extensive both domestically and internationally as are its DWF activities. Domestically, China's aquaculture footprint is testament to the scale of national operations, with 60% of domestic aquaculture occurring on land, occupying 20 million hectares, an area approximately the size of Syria. The country's relentless fishing activity was clearly highlighted during the early months of the pandemic when many vessels returned to port for extended periods, while China's DWF largely remained unaffected. Those Chinese vessels that were affected resumed activities much sooner than other nations.⁵⁷

Not the only bad actor

China currently has the most vessels on the Trygg Matt Tracking IUU vessel list,⁵⁸ It has more than double that of the next country on the list – Belize (29 vs 13 vessels) – which is followed by Indonesia, India and Sri Lanka. China also has the worst IUU fishing index⁵⁹ score globally (3.93), a long way from those next on the list that include Taiwan (3.34), Cambodia (3.23), Russia (3.16) and Vietnam (3.16). In terms of distant-water operations, the Stimson Center's "Shining a Light" report,⁶⁰ published in 2019, found that just five economies are responsible for 90% of DWF effort. China and Taiwan alone account for 60% of that effort, followed by Japan, South Korea and Spain.

Statistics like those above, along with China's population size and appetite for seafood, naturally draw criticism. However, it is important to remember that China is not alone when it comes to questionable maritime practices and behaviours that need addressing. Similarly, policy and legislation must be evaluated in detail to understand if real change on the ground will result from implementation or if greenwashing is afoot. For example, the EU's Sustainable Fisheries Partnership Agreements (SFPAs), which are aimed at

supporting partner countries to increase their own fisheries capacity, involve inherently low royalties for partner countries. Additional abuse of the SFPAs by EU vessels has undermined local food security and provokes considerable conflict with local artisanal fishers, particularly in West Africa.⁶¹ This clearly mirrors concerns around China's bilateral trade agreements, and highlights that China is certainly not the only bad actor when it comes to international fishery agreements.

The EU's carding scheme is another example of international policy that needs careful evaluation. The scheme hands out yellow and then red cards to nations not doing enough in the fight against IUU. A yellow card acts as a warning, while a red card means seafood imports to the EU are ceased, and EU vessels are banned from fishing in the waters of the red-carded country until the offending country can demonstrate clear, positive moves to tackle IUU. Although the carding scheme has certainly catalysed change,⁶² many argue that it smells like colonial rule and bullying, particularly when small island nations are tackled while China has remained untouched.⁶³ Such international policy instruments therefore also have a lot to answer for in terms of bias and balance. This is an important point to remember when attempting to evaluate the role of any nation in global fisheries processes.

It is clear that China leads the pack in bad behaviour when it comes to international fisheries, but the pack contains many other countries that likely do not suffer from the same amount of media attention and criticism. If real solutions to the long list of current problems in global fisheries are to be found, targeting single countries is only one small step. Real solutions will come from internationally enforced legislation that addresses specific behaviours rather than specific nations. The WTO subsidy negotiations will be the biggest milestone to date, but if China's refusal to give up its "developing country" status is upheld, this may mean differential treatment given to China's DWF will slow progress considering China has the highest percentage of harmful fishing subsidies globally.⁶⁴

IV

China Dialogue's reach and impact



China Dialogue provides a space for open discussion, with the aim of informing and educating diverse readerships, and contributing to building equitable and constructive solutions to global environmental problems. This requires a common purpose across political, ideological and cultural boundaries. It fosters that common purpose by providing its readers with independent and accurate information that may otherwise be difficult to access. This facilitates tolerant, constructive dialogue and honest reporting.

When China Dialogue Ocean was launched in 2018, China Dialogue already had a 12-year track record of producing high-quality information and promoting communication on environment and climate change in both Chinese and English. This helps stimulate the exchange of information and ideas both among Chinese and between Chinese and non-Chinese readers on multiple platforms.

To review the success of the China Dialogue Ocean Sustainable Seafood project, it is important to look at the geographic coverage of stories, the journalistic network that the China Dialogue team has built, the diversity of article topics covered, collaborations with experts and the web media engagement and outreach of the project.

Global coverage

The 43 articles published as part of the Sustainable Seafood project have covered five of the seven continents, 18 countries and four multi-country regions. In addition to those articles with a geographic focus, the project has also published 11 articles largely focused on global maritime issues related to IUU fishing activities and overfishing.

The geographic focus of the project has predominantly been on Africa and South and Central America, with 31% and 25% of articles published on topics in these regions respectively. Of the articles with specific country foci, China, Uruguay and Ghana have received the most attention. China-related articles have covered offshore aquaculture plans,⁶⁵ the importance of China's ratification of the PSMA in the fight against IUU,⁶⁶ and China's position as worst performer overall in the global IUU index.⁶⁷ China's role in IUU fishing is covered in great depth in the Ghana-focused articles that include news and analysis of the huge economic losses incurred by illegal saiko fishing off Ghana's coastline that involves Chinese trawlers.⁶⁸ The work in Ghana also includes a two-part, on-the-ground investigation uncovering the link between IUU in Ghana and foreign-owned trawlers,⁶⁹ and the problems of weak penalties for those engaged in IUU fishing in the country.⁷⁰ For China Dialogue's Uruguay-centric work, the focus moves away from China's direct impacts on the oceans by looking at China's planned large-scale investments in port constructions to facilitate its fishing activities in the Southern Atlantic.^{71,72} Work in Uruguay also covers a somewhat surprising investment from China to help Uruguay explore its neighbouring seas.⁷³

Other countries that have gained considerable attention include the Gambia, Mexico and Brazil. Again, the focus in Africa has remained on China's prevalent involvement in IUU fishing⁷⁴ and fish trade.⁷⁵ For Mexico, the work has centred around China's influence in global fish trade, but with a species-specific focus that highlights China as the main player driving further losses of the critically endangered vaquita porpoise, through trade of totoaba swim bladders,⁷⁶ and Mexico's endangered sea cucumbers,⁷⁷ a popular delicacy in China and Southeast Asia. For Brazil, China's influence (and therefore the China Dialogue coverage) concentrates on other industry, this time oil and China's investment in and appetite for new oil opportunities close to Brazil's Abrolhos marine park in Bahia state.⁷⁸

Where were sustainable seafood stories reported from?



Journalistic network

As part of the Sustainable Seafood project, the China Dialogue Ocean team has invested many efforts in building a diverse, geographically expansive and robust team of journalists. To date there have been 35 unique contributors to the project's articles, consisting of a close to equal share of female and male writers, commentators and journalists. The 21 articles that have been written by in-country reporters have helped build local networks which give the China Dialogue team valuable access to often unreported information. This has allowed China Dialogue Ocean to develop its position as a leader in reporting on China's maritime industries, producing robust, timely and influential editorial content for a global audience.

China Dialogue's network also extends to world leaders in maritime security, IUU, fisheries and ocean conservation, many of whom have provided expert commentary for China Dialogue Ocean (Table 1).

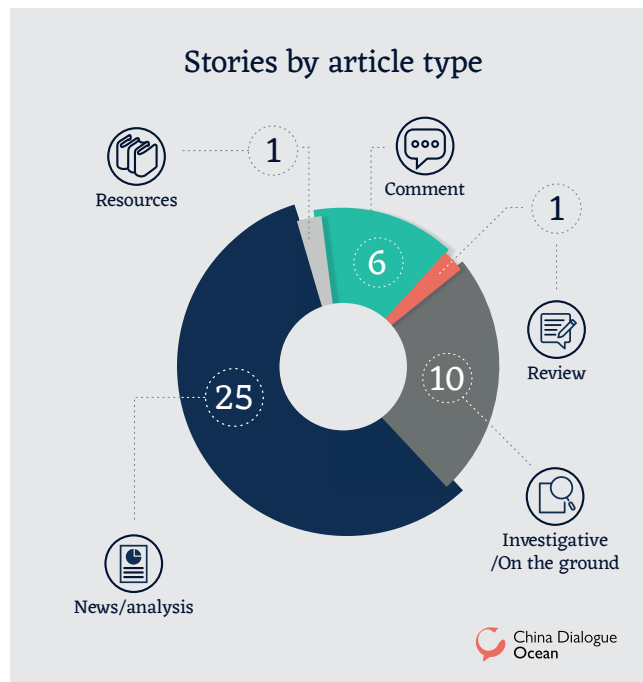
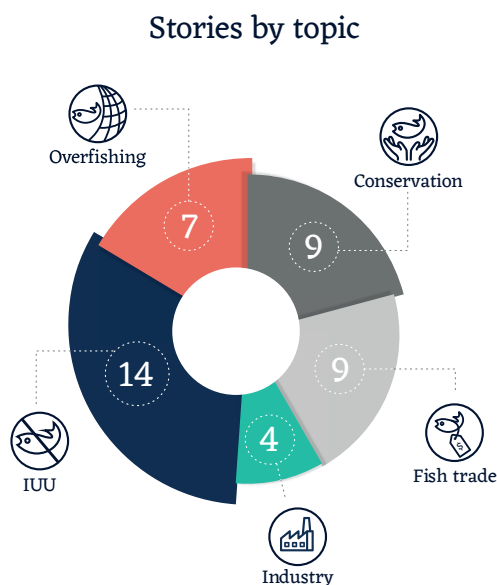
Table 1 | Some of the expert contributors and interviewees for the China Dialogue Ocean Sustainable Seafood project (1)

EXPERT	ORGANISATION	POSITION	CONTRIBUTING BY
Dyhia Belhabib	Ecotrust Canada	Principal investigator, Community fisheries	Reporting on a new online platform, Spyglass, that helps maritime law enforcement and will ultimately protect fish populations and people
Dawn Borg Constanzi	The Pew Charitable Trusts	Senior officer	Reporting on coordinated efforts to help fight illegal fishing
Duncan Copeland	Trygg Mat Tracking	Executive director	Comments on IUU activity in Ghana and the wider Gulf of Guinea, West Africa
Tabitha Grace-Mallory	University of Washington & China Ocean Institute	Affiliate professor, and founder and CEO	Comments on the size and extent of China's DWF
Peter Hammerstedt	Sea Shepherd	Director of campaigns	Comments on the ratio of domestic versus foreign trawlers off the west African coast
Peter Horn	The Pew Charitable Trusts	Director of international fisheries	Comments on the importance of remote surveillance and fisheries intelligence
Gilles Hosch	Independent	Expert on systems to combat IUU	Reporting on China as the worst performer in the Global IUU fishing index
Isabel Jarrett	The Pew Charitable Trusts	Manager – Reducing harmful fishing subsidies	Comments on fishing subsidy negotiations and postponement due to the pandemic
Tony Long	Global Fishing Watch	CEO	Reporting on 2020 as a pivotal year for the ocean
Ifesinachi Okafor-Yarwood	University of St Andrews	Lecturer in sustainable development	Comments on Nigeria's plight against IUU, fishery imports and the impacts of climate change

EXPERT	ORGANISATION	POSITION	CONTRIBUTING BY
Rashid Sumaila	University of British Columbia	Professor, and director of the Fisheries Economics Research Unit	Comments on declines in global fishery subsidies that have occurred in largely the wrong places
Steve Trent	Environmental Justice Foundation	Co-founder and executive director	Comments on Saiko fishing in Ghana and the impacts Chinese super trawlers could have off the Liberian coast
Sally Yozel	Stimson Center	Director of the Environmental Security Program	Reporting on the importance of transparency to tackle illegal fishing activities and improve the seafood supply chain

Portraying an accurate and holistic picture of China's maritime activities requires covering a diverse range of stories and article topics. China's ocean impacts largely revolve around its DWF which is reflected by the number of articles covering stories focused on IUU (33%) and overfishing (16%). However, not all the reported malpractice and ill effects related to China's marine exploits are caused directly by China's fishing activities. China's seafood markets, which demand and produce large quantities of fish, also play an important role in the global impacts reported on by China Dialogue Ocean. The 21% of articles covering global fish trade issues related to China are evidence of the market-driven impacts China has on coastal communities and fish stocks worldwide.

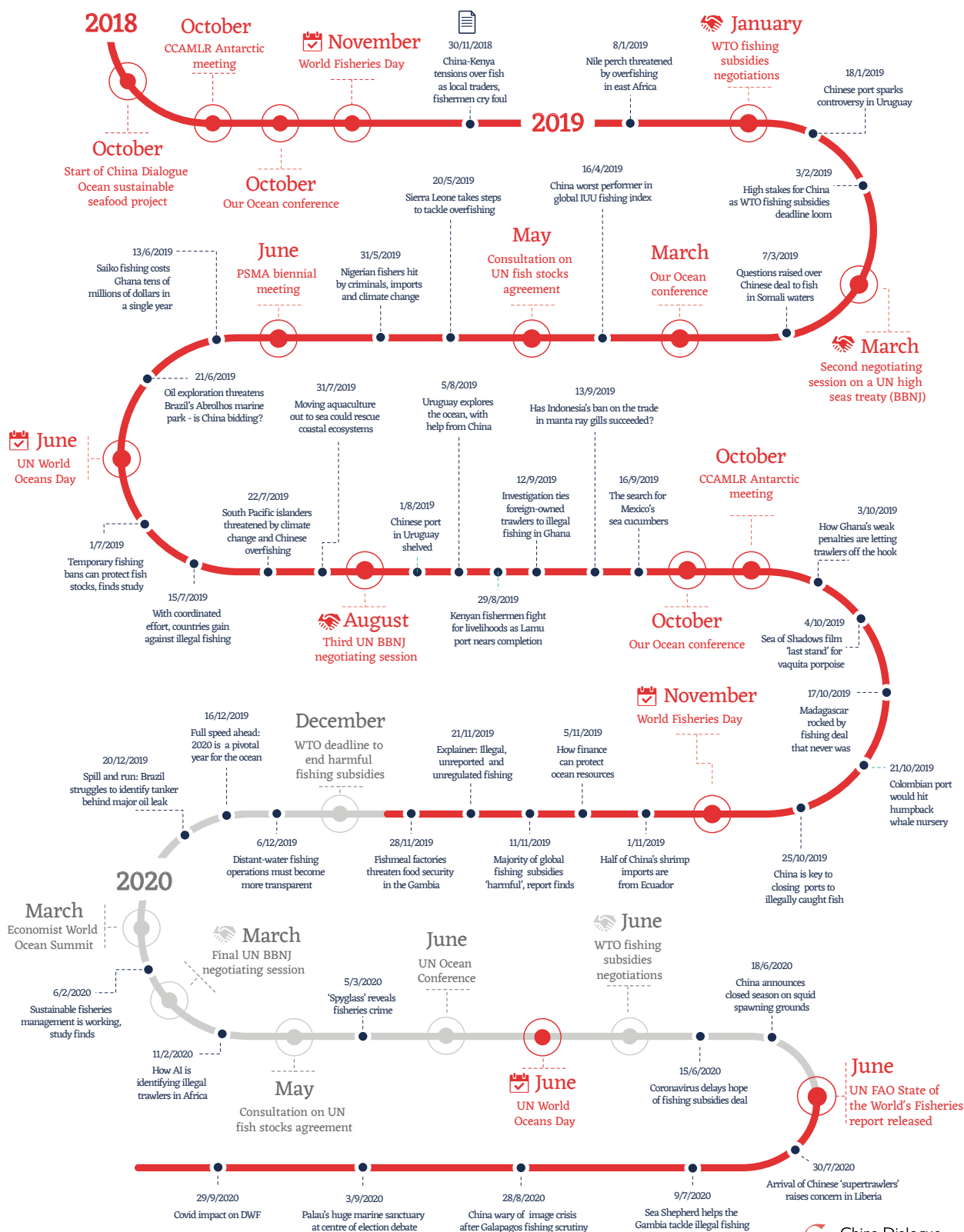
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The drive to report on ocean sustainability issues has meant the Sustainable Seafood project has not just focused on negative outlooks with stories of criminality, overexploitation and China's potentially predatory relations with developing countries. Articles that show positive movement in marine conservation and China's role in improving its affiliation to generally poor practices represent 21% of the 43 articles published since late 2018. These include understanding how finance can protect ocean resources,⁷⁹ how Sierra Leone has taken steps to tackle overfishing⁸⁰ and how China has announced closed seasons on two extensive squid spawning grounds in the Central Pacific and South Atlantic.⁸¹

The Sustainable Seafood project has sought to achieve a diverse portfolio of article types. Predominant efforts have been focused on the cornerstone news/analysis articles (58%), written by a range of experts and journalists specialising in their fields. These resource-light articles have allowed the project to produce timely articles on China's maritime evolution and progress in other countries to address malpractices largely in fisheries. The largest resource investments from China Dialogue Ocean over the last two years have been for investigative/on-the-ground pieces (23% of articles produced). These include Africa-centric articles in Liberia,⁸² Nigeria,⁸³ the Gambia⁸⁴ and Ghana,⁸⁵ covering IUU, fish trade and overfishing topics. Other investigative stories have covered Mexico,⁸⁶ Uruguay,⁸⁷ Brazil⁸⁸ and Indonesia,⁸⁹ which have centred on China's role in global seafood trade and other maritime industries; and a recent article on Palau⁹⁰, which examines criticism of its ambitious marine protection plans.

A timeline of the Sustainable Seafood project



Consistent, high-calibre reporting

Over the last two years, the 43 articles under the Sustainable Seafood project have been published at an average of two per month. The reporting has been consistent, diverse, well read by varied audiences and picked up by many additional news outlets. The project has attracted considerable attention to China Dialogue (<https://chinadialogue.net/en/>) and Diálogo Chino (<https://dialogochino.net/en/>) websites. Diálogo Chino is China Dialogue's sister website, focusing on covering the relationship between China, Latin America and the environment. Since October 2018, China Dialogue has received more than 1.5 million visitors and more than 2.7 million page views, while Diálogo Chino has received almost 800,000 visitors and close to 1.5 million page views. This represents approximately 60,000 and 30,000 visitors per month, to the two sites respectively. During the same period, the China Dialogue Ocean website (<https://chinadialogueocean.net/>) has received 270,000 visitors and 450,000 page views.

The China Dialogue and China Dialogue Oceans websites are most frequently visited by users from the United States, followed by China, the United Kingdom and India, whereas Diálogo Chino's audience comes predominantly from Brazil, the United States, Bulgaria and a host of Central and South American countries.

Public engagement with the articles published as part of the Sustainable Seafood project has been largely consistent, with approximately 2,000 clicks per month over the last two years. This engagement has, however, been punctuated by spikes for certain articles, across a range of topics. The most clicks in the last two years were seen for an article written as a collaboration between He Mu and Lucia Wei He that covered Ecuador's sustainable shrimp aquaculture that is feeding a hungry Chinese market.⁹¹ In second place was María Paz Sartori's article discussing China's investment in fitting out an ex-navy ship with oceanographic laboratory equipment to help Uruguay explore the ocean.⁹² Third was David Adam's article discussing a new study finding fisheries management to be working in key fishing grounds in Europe, South America and Africa, while the health of many Asian fisheries remains unclear.⁹³ While such 'top-visited' evaluations are biased by the time since publications, it is clear that there is significant diversity in the subject matter of the most popular articles published by China Dialogue Ocean.

China Dialogue Ocean's web outreach has grown significantly since the start of the Sustainable Seafood project, at the same time as its social media reach and engagement. Facebook is the primary vehicle used by China Dialogue Ocean for social media outreach and the 43 articles published as part of the Sustainable Seafood project have been seen by more than 2.3 million viewers and further engaged with, in the form of comments, likes and shares by nearly 300,000 users. Reach and engagement with these articles has less of an impact through Twitter, but is nonetheless impressive in both cases, with just over 360,000 views and 22,000 further engagements.

The China Dialogue Ocean Sustainable Seafood project has increased China Dialogue Trust's viewing and engagement numbers significantly. The success of the 43 articles comes down to consistent, high-quality publishing along with a diversity of robust articles that all add to a bigger picture – in this case, China's role in the global ocean with a focus on international fisheries. While there is little coverage in Chinese media of the extent of China's involvement in IUU fishing, the Sustainable Seafood project is educating global audiences on China's good and bad practices while highlighting novel ways to overcome the current challenges faced.

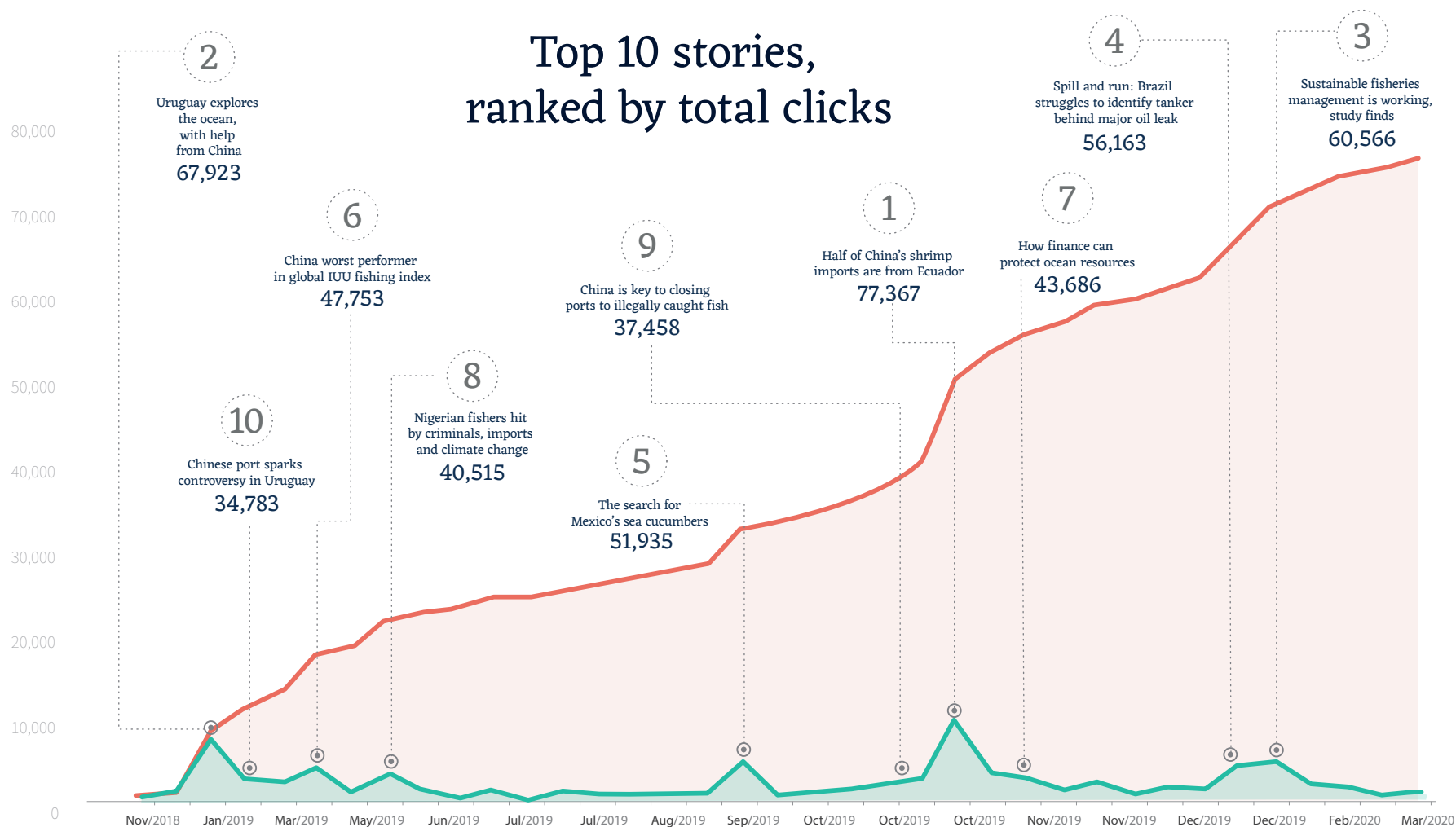
Top 10 stories, ranked by total clicks



Cumulative clicks



Article clicks



Republishing

Articles published as part of the Sustainable Seafood project have been republished by outlets including Blog China, Eco-Business, Financial Times Chinese, Mongabay, Parley, The Maritime Executive, The Nature Conservancy, Six Degree News, Skytruth, The Paper, Undercurrent News and the Stimson Centre. Republishing by national media outlets has also been common. In South America these outlets include the Buenos Aires Times, CeroSetenta, La Juventud and Redaccion. These have largely taken interest in the coverage of China's relations with Uruguay. African media outlets republishing articles from the Sustainable Seafood project include Modern Ghana, Ghana Business News and the Somaliland Standard – largely focused on topics related to China's DWF in African waters.

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Coming from the starting point of a brand new oceans website publishing just a handful of stories, in two years China Dialogue Ocean and our Sustainable Seafood stories have not only harnessed the expertise of our existing resources in Southeast Asia and Latin America to examine China's role in the global ocean, but also recruited and developed a network of journalists in regions where we had never reported before, from Ghana to Palau. Each of these stories has required getting to grips with the domestic political and socioeconomic situation, fishing access rights and trade agreements, and impact on local resources. In each we have achieved balance and context, giving us a unique and more nuanced reporting capability. We have also made China Dialogue Ocean part of the global conversation about sustainable fisheries by developing relationships with leading academic and industry experts. As a moving picture of China's marine footprint around the world, the range of this project is remarkable.”

Jessica Aldred

China Dialogue special projects editor

V

Sustainable Seafood project workshops



Reporting on the role of China in the oceans requires an historical understanding of China's emergence as a relatively new global fishing power, accounting for China's domestic green agenda along with its international responsibilities, and appreciating the challenges in regulating an industry that operates thousands of miles away from home.

In summer of 2020, China Dialogue Ocean organised two online workshops to help unpack the challenges, opportunities and threats related to reporting on China's role in the oceans. They had initially been planned to take place on the ground but were moved online due to the pandemic. The mixed discipline workshops brought together investigative journalists, legal and policy experts, and industry and NGO professionals (Table 2) to exchange information and perspectives, improve reporting standards and identify obstacles to and opportunities for change.

The first workshop, entitled "Sustainable seafood in the Southern Cone", focused specifically on China's impacts on the Southern Cone, the southernmost areas of South America, traditionally Uruguay, Argentina and Chile. The second workshop, "Reporting on China's fisheries", focused on China's role in global fisheries. It discussed the challenges of reporting on this topic and was attended by journalists from the Environmental Reporting Collective. Each workshop consisted of approximately 40 attendees along with the invited presenters.

Table 2 | **Speakers at the two workshops**

PRESENTER	ORGANISATION	COUNTRY	SUBJECT
Fermín Koop	Diálogo Chino	Argentina	Welcome – Southern Cone
Isabel Hilton	China Dialogue	UK	Introduction
Milko Schwartzman	Oceanosanos	Uruguay	Southern Cone target species and practices, socioeconomic and ecosystem impacts, sustainability challenges
Pan Wenjing	Greenpeace East Asia	China	A snapshot of China's DWF
Rodrigo García Píngaro	Oceanosanos	Uruguay	Panel discussion
César Astete	Oceana	Chile	Panel discussion
Valeria Falabella	Wildlife Conservation Soc.	Argentina	Panel discussion
Peter Horn	Pew Charitable Trusts	UK	Panel discussion
Cheng Jun	The Nature Conservancy	China	Panel discussion
Patrick Boehler	The Environmental Reporting Collective	Czech Republic	Introduction
Jessica Aldred	China Dialogue	UK	Introduction
Zhou Wei	Greenpeace East Asia	China	Overview of China's fisheries with a focus on Southeast Asia
Ma Tianjie	China Dialogue	China	Reporting on fishery issues in China – What drives change?

Sustainable Seafood in the Southern Cone

The aims of the Southern Cone workshop included identifying pressure points for action, areas for positive change and facilitating a constructive dialogue on overfishing and illegal fishing in the region. Keynote presentations on industrial fishing in Latin America and on China's DWF fleet were followed by an expert panel discussion on the impact of industrial fishing on ecosystems and communities in the region and opportunities and mechanisms for change. A final Q+A session allowed audience members a chance to voice their concerns, ask additional questions and provide added detail to an already rich base of information.

DWF in the Southern Cone region

Milko Schwartzman, formerly of Oceanosanos (now of Ocean Conservation), first discussed the prevalence of DWF vessels in the Southern Cone region. This can be as high as 500 DWF vessels off the Uruguay coast during the peak season, driven by the high demand for, and prevalence of, species such as squid, hake, swordfish and Peruvian anchovy. Although clear fisheries management does exist in the region, such as mandatory vessel inspections in ports, prohibition of transshipments and numerous labelling and sanitary conditions, DWF vessels operating there rarely obey the rules. Added to this, available information on vessel operations is often only available through communications with vessel captains, many of whom are not reliable or accurate sources. A lack of trained vessel inspectors also compounds the lack of information in the region, which Schwartzman believes means banned transshipments take place and poor working standards and human rights abuses continue.

The scale of China's DWF

Pan Wenjing from Greenpeace East Asia focused her presentation on China's role in global distant-water fisheries. She highlighted the sheer scale of China's DWF, with 2,709 DWF vessels fishing globally and an estimated annual catch of two million tons in 2019. As noted by other presenters in the workshop, Pan cited the importance of addressing the subsidies that fund the largely inefficient practices of DWF fleets. Although the picture is not pretty, Pan also highlighted positive moves from China, including the 13th version of its Five Year Plan for DWF development that plans to cap the size of the DWF by 3,000 by the end of 2020. She also noted China's new Rule for High Seas Transshipments, although these are not planned to come into force until January 2021. Pan also presented her findings from a two-week tour of the Southwest Atlantic region during the early stage of the squid season. During the tour, Pan and colleagues met 18 Chinese and two Spanish trawlers and found that almost all trawlers were dark vessels that turned their AIS transponders off to avoid detection by regional law enforcement agencies. Cases of poor working conditions were also reported with many of the captains and crews staying at sea for periods of up to two years.

Looking at what is next for China, Pan explained that while China is looking to improve its management of DWF and revise its policies, there is still considerable room for improvement. There needs to be effective enforcement of policies and regulations to help combat IUU. She also noted the importance of transparency and better information exchange, something that NGOs such as Greenpeace can help deliver, although it is ultimately the responsibility of the government to inform others.

Capacity needs

Peter Horn, director of the End Illegal Fishing program at Pew Charitable Trust, highlighted the difficulties with a lack of processing capacity in many of the Southern Cone countries, a problem which is likely worse

in many less-developed IUU hotspot regions such as West Africa. Even when data is collected, it requires processing and interpretation to identify illegal fishing activities. Equally important, is correct follow-ups with prosecutions of a magnitude that incentivises vessel owners and fishing companies to follow regulations. Financial incentives not to break the rules as well as a removal of DWF subsidies that maintain unsustainable and often illegal fishing practices will be key to fighting IUU. The disparity between subsidy provision for DWF vessels compared to the poor funding and support given to local small-scale fleets that cannot compete in fishing capacities or range with the many foreign DWF vessels is also an important consideration.

Uruguay's struggle with IUU fishing

Rodrigo García Píngaro, founder and director of Oceanosanos, spoke specifically about Uruguay's struggle with IUU from DWFs. He noted that although Uruguay is a pioneer in the Southern Cone region for signing fisheries legislation, solutions must also come from the "bottom up". Local communities need to voice their concerns and present them to the Uruguayan parliament to make real change happen and stick. He also noted that behavioural shifts in Uruguayan society can go a long way in driving positive change. Fish consumption per year in Uruguay is 9kg per head, compared to the global average of 19kg. If local demand for fish products can be increased, and undervalued, discarded species can be brought to local markets, seafood waste will be reduced and drives to sustain local resources for the Uruguayan people will be promoted. With similar sentiments to Hord and Schvartzman, Píngaro also noted that transparency of information is key, noting that a focus on illegal activity is not enough and supposedly legal practices which are still poorly monitored are just as important regarding environmental problems in the region.

Ecological, economic and social sustainability

César Astete, director of fisheries campaigns for Oceana broke down his discussion around fisheries sustainability into environmental, economic and social impacts. He first highlighted the environmental degradation that has occurred in the Southern Cone region since the increase in unsustainable, largely DWF practices. He then went on to highlight the economic importance of bringing Southern Cone fish back to Southern Cone countries for processing to extract more value before the fish ship to foreign markets. By increasing local employment levels and reducing the focus on exports, he believes more benefits can be brought to local society, one positive result of the current pandemic that has focused attentions on local food sourcing and sustainability. In his discussion of social impacts, César mentioned the importance of valuing the roles of women in local fisheries supply chains and addressing the current pay gap between men and women. César believes fishing is immersed in many local societies around the Southern Cone and if local marine stewardship can be fostered, real progress can be made, again from the people, from the bottom up, as suggested by Píngaro.

Tools for management and conservation

Valeria Falabella of the Wildlife Conservation Society, Argentina, focused her presentation away from fishing, instead speaking about the different tools available to conserve marine biodiversity in the region. She highlighted the difference between management tools like ecosystem-based management (EBM) and marine spatial planning (MSP) that can protect function and ecological structure and conservation tools like marine protected areas (MPAs) and other effective area-based conservation measures (OECMs). Although MPA creation has doubled in the last five years and expanded at more than 8% per year, Valeria believes that working to protect 10% of the ocean is not sufficient to protect biodiversity and ecosystem services. A focus only on such spatial goals takes importance away from other ways to better manage the oceans. She argued

that spending 20 years protecting 20% of the ocean is not a good use of time or resource. She also highlighted ideas around greenwashing in which nations may make considerable efforts to promote statistics on marine conservation that are largely misleading. Giving such false impressions of conservation is perpetuated by not differentiating MPA types in regional statistics. Valeria gave the example of the big difference between an MPA fully closed to any fishing activity versus an MPA designated as multi-use.

Finally, Cheng Jun, marine project officer at The Nature Conservancy (TNC) China, spoke about TNC's project focused on assisting China to advance its agenda on the PSMA. Looking at China's plan to ratify the agreement, Cheng noted that China has stated that it is positive about joining and the ratification has been mentioned on several recent occasions in China's policy discussions. The implications of China joining the PSMA are huge given its extensive coastline and fish consumption. By joining, China will be able to perform as a flag state, and although it does not currently have sufficient management for its large DWF, joining will hopefully allow for better management. However, Cheng expressed some concerns regarding the implementation of the PSMA, including a lack of capacity in port staffing, difficulties in getting revisions to existing laws and regulations, and the need for close coordination across different agencies. Cheng also noted that while there has been a lot of effort in improving China's DWF, there is still space to strengthen this. Exciting opportunities exist both domestically and internationally, and she hopes that with the right cooperation, the roadmap in combatting IUU fishing,⁹⁴ which was endorsed by APEC (Asia-Pacific Economic Cooperation) in 2020, will be successful in joining up the relevant projects on PSMA capacity building.

Closing remarks

From the workshop it was clear that with the amount of DWF activity in the Southern Cone region, significant improvements are needed in management, regulation and enforcement. Engagement with communities in the region also appears essential if fishery resources are to be used more efficiently and if local regulatory agencies are to be persuaded not to focus their attentions only on exports and the industrialised, foreign fishing vessel sector. Improving monitoring and control over an area that encompasses more than 5.6 million square kilometres of water in the south-eastern Pacific, south-western Atlantic and the Southern oceans is, however, no small task. Fisheries in the region play an important part in the global seafood production chain but their impacts go beyond the overfishing of target species, with wider biodiversity threatened as marine species are put under pressure. Current exploitation rates are clearly not sustainable and need urgent attention.

Reporting on China's fisheries

The aims of the Reporting on China workshop were threefold: to recap on China's extensive fishing operations, to discuss what steps have and will be taken to address IUU and overfishing associated with China's DWF, and to talk about issues encountered when reporting on China's fishing industry and policy.

The workshop began with a welcome from Patrick Boehler, co-founder and editorial board member of the Environmental Reporting Collective. Jessica Aldred, special projects editor for China Dialogue Ocean then gave a brief overview of the structure of the workshop and introduced the speakers.

The first speaker was Zhou Wei, senior oceans campaigner who has been working with Greenpeace East

Asia for more than seven years. Her work mainly focuses on ocean protection, sustainable fisheries and more recently on high seas marine protected areas. Zhou has conducted field research in more than 20 Chinese fishing ports and written widely on China's domestic fisheries. She has also drafted several policy recommendations on China's DWFs, including advice for the revision of the Regulation of the Distant Water Fisheries.

China's responses to IUU fishing

Zhou first gave participants a summary of China's DWF activity and the extensive subsidies that are needed to make the fleets activity profitable. She then focused her attention on discussing China's practical responses to IUU that include:

- The 13th Five Year Plan for 2016-2020 which includes a limit of 3,000 fleets with zero growth for DWF companies.
- The 2017 DWF Personnel Black List System, in which fishing company managers and captains who commit IUU fishing are listed, often ending their careers.
- The revision of the DWF management regulation to include 'sustainable' DWF development or 'reasonable scale' with a 'scientific layout'.
- Improved port measures and penalties for IUU fishing-related violations.
- Increased frequency of vessel monitoring system (VMS) transmissions from every four hours to 'no less than once per hour'.
- The 2020 announcement of rules for High Seas Transshipment that include the requirement for inspections before and after operations have been conducted.
- The Management Measure for High Seas Squid Fisheries that requires Chinese-flagged vessels to conduct self-disciplined moratoriums.
- A phasing out of China's Southwest Atlantic trawlers.
- The design of pilot projects and regulations to improve fishing crew working conditions onboard vessels.

After discussing these steps in the right direction, Zhou closed with final thoughts, suggesting that although there is positive movement from China, there remains significant room for improvement regarding the management of the DWF. She suggested this should include effective enforcement of policies and regulations, improved exchanges of information with coastal countries with whom China deals, the elimination of harmful subsidies and a robust Global Ocean Treaty that can deliver the vision of at least 30% of the ocean fully protected by 2030.

Accurate reporting

The second workshop presenter was Ma Tianjie, China Dialogue's Beijing Director. Before joining China Dialogue, he was Greenpeace's Program Director for Mainland China. He has contributed to a range of media organisations on China's environmental challenges.

Ma's presentation focused on the importance of accurate reporting. He drew attention to the inaccuracies in international reporting around the activity of China's DWF fleet operating near the Galapagos Marine Reserve.⁹⁵ Many reports suggested that almost 300 of China's DWF vessels were actively shark fishing on the boundary of the reserve, on the edge of the Ecuadorian EEZ. Ma clarified that the fleets were in fact mainly

targeting squid. He went on to state the importance of balanced and objective reporting to correctly inform conservation efforts. He referred directly to China's involvement in IUU fishing activities off West Africa, which when highlighted in the global press in 2015, caused China to react quickly. This is likely because they do not want the fishing industry to undermine diplomatic relationships in the region.

Ma concluded his presentations by saying that detail and accuracy are essential in reporting on environmental issues. He also noted the importance of not forgetting the human dimension in public media stories and understanding exactly who is involved with illicit behaviour so as to avoid blanket statements and pointing the finger at a monolithic China entity.

Q&A session

The question and answer session that followed Zhou and Ma's presentations was chaired by Jessica Aldred who opened by asking about sources of data for China's fishing operations and subsidy provisions. Ma responded that vessel ownership information is publicly available at the Trade and Industry Bureau, although searches of the data would require a native Chinese speaker. Zhou added that China's Fishery Yearbook contains useful information that is also available as an online database. It features information on punishments of IUU but no publicly available lists of Chinese-owned vessels.

Ma was also asked about the best way to get responses from Chinese authorities. He replied by saying the culture in China is for politicians not to talk, but persistence can pay off. Ma also noted that regarding Chinese fisheries, it can be problematic getting a response because relevant ministries do not have spokespersons to contact. In some cases, the next best avenue for information are experts who work on China-related topics that have more freedom to talk than Chinese officials.

In response to questions regarding China's fishing subsidies, Ma noted that the subsidies were never set up for the fishing sector. Rather, they were put in place in 2006 by the government to help low income communities but have now evolved to the point that commercial companies make money by claiming fuel subsidies, and this has become the largest part of their revenue. Since 2014, the Chinese government have been rolling back these domestic subsidies, particularly for fishing companies.

Speaking about the next year of reporting on China's maritime influence and associated impacts, Ma said special attention should be paid to the Antarctic and finding new stories can be facilitated by mapping key fishing grounds. Ma also pointed out that because overfishing is leading to changes in target species, generally from higher to lower trophic levels, more attention should be paid to what is next in the trophic chain – those species that are likely to start being exploited in the near future.

VI

Looking ahead



China Dialogue moving forward

Reporting by China Dialogue Ocean will help foster best practices that underpin sustainable approaches while exposing wrongdoing. It can also highlight risks to China through possible pressure points, such as access to markets, finance and insurance, as well as reputational risk, to encourage corrective actions. Since seafood trade is global and market rules exist, China Dialogue Ocean can highlight where abuses and illicit behaviours exist to China's business partners, international regulators, and existing authorities. Through consistent and considered content, China Dialogue Ocean can continue to raise awareness among consumers, industry practitioners and policymakers of the need for stronger action to prevent an ocean tragedy of the commons in which China stands to lose greatly.

Impactful and timely reporting on ocean sustainability issues is urgently needed to bring to light practices that remain largely invisible without it. This is particularly relevant to China, as much of the news covered in China Dialogue Ocean is not covered by Chinese media outlets. There is a particular paucity of reporting on China's involvement in IUU fishing in the territorial waters of other countries, again something that China Dialogue Ocean is working hard to address.

China Dialogue's network of websites is considered one of the go-to places for Chinese and international policymakers, consumers and industry specialists who seek to understand and improve China's policy and practice. The China Dialogue Ocean site is also relied upon by readers who seek to better understand the challenges facing the health of the ocean.

Focal areas for 2021

The stories produced by China Dialogue Ocean's editorial team have recognised China's legitimate needs, but also firmly acknowledged they will not be met in the future without urgent attention to reform and sustainability, particularly if predatory and illegal practices that damage the long-term interests of China and other countries continue. The year 2020 was tipped to be a pivotal year for the ocean but because of the coronavirus many key negotiations and events have been postponed until 2021. Attention should be focused on the following areas:

- Outcomes from the WTO's fishery subsidy negotiations, with particular attention to China's next moves regarding its request to maintain "developing country" status.
- China's engagement in the UN's High Seas Treaty. A key indication of China's commitment to ocean biodiversity and conservation will be whether it supports proposals to designate 30% of the ocean to be fully protected within marine protected areas (MPAs), along with enlarged MPAs in the Antarctic.
- Ratification of the PSMA. The possibility that China might join the Port State Measures Agreement would help close the gap that IUU vessels can pass through from neighbouring countries that have already signed. It would have the co-benefit of demanding a much more rigorous fisheries management system in China than currently exists.
- The relationship of bilateral contractual arrangements with IUU fishing and other critical areas of governance such as the role of developed nations trading in the global south.
- New possibilities of fisheries management afforded by technology and innovation, including the use of:
 - Tracking and tracing technologies to analyse vessel behaviour and report illicit activities in a timely manner to help strengthen global monitoring, control and surveillance efforts.

- Decentralised data repositories and blockchain-based technologies⁹⁶ to transparently record information related to the journey of seafood from vessel to plate that will allow policymakers, vessel owners, buyers, sellers and consumers to be held accountable for the provenance of the seafood they trade or consume.

In addition to these key focal areas, sustained efforts to produce investigative, on-the-ground articles will prove beneficial both to build real-world context around topics that are otherwise largely removed from most readers' lives, and to highlight critical issues to authorities, policymakers and other organisations with a remit to tackle unsustainable maritime practices. China Dialogue Ocean will continue to benefit from consolidating its growing reporting network, building a geographically diverse, reliable team that is ready to cover new stories in otherwise difficult places to investigate. Finally, China Dialogue Ocean must continue to produce forward-thinking reporting, not just about what is happening now, but rather how things are happening and what they mean for the future of environmental sustainability.

How can China play a leading role?

Poor regulation, weak enforcement and a recent legacy of IUU fishing activity have made China an unsustainable ocean player, pursuing short-term benefits at the expense of long-term sustainability, and attracting increasing international criticism. There is also a clear paradox between China's domestic environmental policies that seek to enhance national food security and build an "ecological civilisation", and China's international fisheries behaviours that are often unsustainable and sometimes fall within the definition of IUU. China's DWF has grown so rapidly that it has outgrown the country's management capacity and Chinese authorities have struggled to catch up. Regulation and supervision of the activities of China's fisheries sector, including its DWFs, therefore remains fragmented.

China needs to reconsider its DWF activities considering the fact that catch from the sector makes up only 6.6% of its domestic seafood, relies heavily on subsidies, and creates huge amounts of international criticism from its continued poor practices and often illicit behaviours. China must make strides towards improved practices if it is not to continually appear in international press headlines as a repeat offender. Considering the speed of technological advances that have opened new possibilities to detect and record IUU activity, China will face increasing pressure to improve its fisheries behaviour. This pressure will hopefully bring positive change in the form of regulatory reform, more vigorous implementation, and increased exposure of companies and people that engage in illicit activities.

Many long-term solutions to current ocean-related environmental problems will rely on international collaboration in which China needs to play a leading role. Given China's central position in the global fishing industry, it has an historic opportunity to take the lead in increasing transparency across the global seafood supply chain. Becoming party to the PSMA, working to eliminate fishing subsidies through WTO negotiations, and clear engagement with the UN's High Seas Treaty are three key areas that will help China become a leader in ocean sustainability, a very different position to where it sits now as the worst performer in a global IUU index, the largest funder of DWF subsidies and the country with by far the most DWF vessels in total and DWF vessels on the IUU list.

China has a real opportunity to provide leadership. The steps forward it is taking slowly must be taken more quickly.

Looking ahead

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An honest exchange of information and understanding on ocean governance is necessary at this critical moment. Decisions being made now – in the 14th Five Year Plan, post-COVID recovery and in global economic stimulus packages, the COP26 and UN environmental negotiations – will all have a planetary effect. We also face a crisis in communications as mutual suspicions shrink the space for productive exchange. China Dialogue seeks to stimulate proactive and positive momentum towards sustainable, green development and foster the degree of engagement and the joint search for solutions the situation demands.”

Sam Geall,

China Dialogue executive director

Glossary

AI – Artificial intelligence

APEC – Asia-Pacific Economic Cooperation

BBNJ – Biological diversity of areas beyond national jurisdiction

CCAMLR – Commission for the Conservation of Antarctic Marine Living Resources

DWF – Distant Water Fleet

EBM – Ecosystem-based management

EEZ – Exclusive economic zone

EU – European Union

FAD – Fish aggregation device

FMFO – Fishmeal and Fish Oil

IUU – Illegal, Unreported and Unregulated (fishing)

MCS – Monitoring, control and surveillance

MPA – Marine protected area

MSP – Marine spatial planning

PSMA – Port State Measures Agreement

OECD – Other effective area-based conservation measures

RFMO – Regional fisheries management organisation

SFPA – Sustainable fisheries partnership agreement

TNC – The Nature Conservancy

WTO – World Trade Organisation

UN – United Nations

VMS – Vessel monitoring system

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