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Abbreviations and translations

- » AIS: Automatic Identification System
- » CAFS: Chinese Academy of Fishery Sciences (中国水产科学研究院)
- » CCS: China Classification Society (中国船级社)
- » CMM: Conservation and Management Measures
- » COFA: China Overseas Fisheries Association (中国远洋渔业协会)
- » Configuration of Fishing Vessels, Nets and Gears (船网工具指标)
- » DWF Qualification: Distant Water Fisheries Company Qualification
- » DWF Regulation: Offshore Fisheries Management Regulations
- » DWF: Distant Water Fishery
- » ECSFRI: East China Sea Fishery Research Institute (东海水产研究所)
- » EEZ: Exclusive Economic Zone
- » FAO: Food and Agricultural Organisation of the United Nations
- » FERI: Fisheries Engineering Institute (渔业工程研究所)
- » GT: Gross Tonnage
- » ILO: International Labour Organisation

- » IMO: International Maritime Organisation
- » International Compliance Research Centre for Distant Water Fisheries (远洋渔业国际履约研究中心)
- » IUU fishing: Illegal, Unregulated and Unreported fishing
- » MARA: The Ministry of Agriculture and Rural Affairs (农业农村部)
- » MCS: Monitoring, Control, and Surveillance
- » MoU: Memorandum of Understanding
- » National Fishing Vessel Dynamic Management System (全国渔船动态管理系统)
- » NPFC: North Pacific Fisheries Commission
- » PSMA: Agreement on Port State Measures
- Quota of Fishing Vessels, Nets and Gears (船网工具控制指标)
- » RFMO: Regional Fisheries Management Organisation
- » SHOU: Shanghai Ocean University (上海海洋大学)
- » SPRFMO: South Pacific Regional Fisheries Management Organisation
- » UVI: Unique Vessel Identifier
- » VMS: Vessel Monitoring System
- » YSFRI: Yellow Sea Fishery Research Institute (黄海水产研究所)



Executive summary

China has the largest distant water fleet in the world which operates across the global oceans. The distant water fishery (DWF, it is also referred to as "offshore fishery" in this report) is a cornerstone in implementing several of China's economic strategies such as "building a maritime community with shared future", the "Go out" policy, and the "Belt and Road Initiative". The Chinese government created the strategy for its DWF industry with long-term economic gain in mind. However, the fast expansion of China's fishery capacity has enabled unscrupulous operators to thrive, resulting in numerous illegal, unreported and unregulated (IUU) fishing incidents committed by the Chinese DWF fleet being reported in recent years. Shen and Huang (2021) from Shanghai Ocean University (SHOU) suggested that the lack of concrete regulatory measures, ineffective policy implementation, and insufficient monitoring, control and surveillance (MCS) are the main barriers preventing the elimination of IUU fishing in China's fleet.2

Regarding the DWF as a crucial industry for fishery resources and job opportunities, the Chinese government has introduced various measures to enhance the fishery capacity of its fleet by providing subsidies and low interest loans from China's policy banks, deduction of taxes, etc. Regional governments also offer generous rewards and tariff reductions3 to ensure a high percentage of DWF catch is shipped back to China annually⁴ to replenish raw materials for the food processing industry⁵ and ease the tension of resource scarcity of their nearshore fishery. 6 The Chinese government also continued to support the exploration of new fishing grounds, the development of new markets by strengthening countryto-country collaborations,7 and joining regional fisheries management organisations (RFMOs) as a member state - enabling China to contribute to international decisionmaking platforms.8

The main pathway by which China's DWF fleet can gain fishing access in foreign developing countries has been changing. The government has acknowledged that some Chinese DWF companies are small, with low risk-bearing capacity and ineffective internal management. These companies have been linked to IUU fishing incidents and the inability to fulfil the compliance requirement of RFMOs. The government thus encourages the merger and acquisition of DWF companies into larger enterprises, to extend the production value chain, and to invest in offshore fishing bases and harbours in coastal

states.⁹ There are an increasing number of fishing projects investing in the development of coastal states' infrastructure – such as harbours – to gain fishing access, instead of the traditional route of purchasing a fishing licence. This is likely to be driven by policy change in both China and the coastal states.¹⁰

The Chinese government had a goal to restrict the number of national DWF vessels to 3000 by 202011 and to stabilise the annual DWF catch to 2.3 million tonnes by 2025.12 Official figures show that this goal was achieved for Chinese-flagged and owned vessels.13 However, a preliminary analysis of Chinese DWF vessels with International Maritime Organisation (IMO) numbers¹⁴ revealed that since the restriction on number of vessels, the average gross tonnage (GT) of individual vessels has increased from 774 GT per vessel during the period 2012-2016, to 1086 GT per vessel during the period 2017-2021. Moreover, there is a discrepancy in policy regarding fishing capacity at the central and provincial (or regional) level government, which may be driven by underlying political agendas and economic competition. The major DWF provinces/municipalities, including Zhejiang, Fujian, Shandong, Liaoning, Beijing, Guangdong, and Shanghai, compete against each other to develop the nation's leading DWF industry with the most advanced facilities and the highest fishery landing. To counteract the national restriction in growth set out by the Chinese government, the governments of major DWF provinces and cities provide numerous financial rewards to companies. For instance, for buying vessels authorised to fish in RFMO areas from other provinces, for shipping DWF catch back to China, for enterprises to sell or process fishery products in the provincial ports, and for companies of other cities or provinces to register in their provinces, among other criteria.

In this report, we found that this kind of competition may not always align with the effective MCS of vessels due to conflicts of interest – primarily, the fact that the municipal and provincial governments are the primary law enforcement entities but are under significant political pressure to become the "strongest DWF city/province". This discrepancy between the national and regional plans, and the ongoing IUU fishing incidents at-sea, highlight the need to closely examine China's current DWF management framework, and the distribution of monitoring and law enforcement responsibility among governmental entities. A robust national legal framework could also urge the reform of policies and regulations of each province and thus align the policies of the central and regional government for the development of the DWF industry.

Key findings

- China's DWF activities are principally overseen by the Ministry of Agriculture and Rural Affairs (MARA) which guides the development of this sector by designing the national strategic plan. However, the provincial or municipal governments and several other institutions are the principal actors managing the application, implementation, and monitoring of the DWF activities in practice. Layers of responsible authorities, and frequent renewal and update of regulations through various "notices" published by MARA, have significantly complicated the chains of command and decreased the efficacy of the "Offshore Fisheries Management Regulations" (DWF Regulations) resulting in certain responsibilities slipping through the net.
- Although all Chinese citizens are regulated by the current DWF Regulations in terms of participation in DWF activities (including fishing, supplying and transshipment), investing by setting up front companies, a common practice in West African countries, is not regulated. EJF has also documented several instances of Chinese citizens living abroad and participating in fishery activities using vessels without names, home port, or documentation, or vessels with stolen identities. The regulation of Chinese citizens' activities, both abroad and in China, need to be clarified in the principal fisheries' regulation the "Fisheries Law of the People's Republic of China" along with corresponding sanction measures, especially in cases of participation in IUU fishing or related business activities.
- Chinese DWF Regulation should set out minimum standards for sustainability based on scientific assessments, transparency, and MCS systems and clarify the enforcement and legal procedures regarding any violations to guide bilateral or private fishing agreements.
- Under the current regulation, only companies with a DWF company qualification (DWF qualification) can participate in DWF activities. This is also the only prerequisite to acquire DWF subsidies from the government. There are still numerous individually owned vessels operating independently while nominally "depending" on qualified companies, making the management of these vessels challenging with regards to IUU fishing infringements. Moreover, the annual assessment and renewal of the qualification is company or project-based instead of individual vessel-based. The current mechanism is not effective enough to eliminate vessels with a history of non-compliance.

- Transparency can be further improved in the Chinese DWF fleet. This includes registering eligible vessels flying the Chinese flag for International Maritime Organisation (IMO) numbers; giving ineligible vessels a unique national vessel number and making vessel lists with this data publicly available; making sure that criteria specifically relating to abusive reflagging/use of flags of convenience in the process of vessel registration and issuing/renewing DWF qualifications is in place; mandating the installation and use of automatic identification systems (AIS) in addition to vessel monitoring systems (VMS) to facilitate reliable vessel MCS, amongst other measures.
- The officially announced IUU fishing infringement data showed that MARA seldom initiates investigations of IUU fishing incidents based on routine VMS monitoring. Of the 148 suspected or confirmed IUU fishing incidents published by MARA from 2018 to 2020, 70% of the incidents were reported by a coastal state, a third country, or an international organisation (MARA refers these to "foreign affairs-related" incidents) while the remaining were cases reported by Chinese citizens. This highlights that the Chinese government should be more proactive in monitoring and publishing IUU fishing notices relating to its fleet.
- 89% of these incidents were carried out by vessels belonging to companies with DWF qualifications and 72% were operating projects approved by MARA. This implies that the current annual assessment mechanism of fishing projects and company qualifications is not stringent enough to filter out non-compliant companies, and the sanction measures are insufficient to provide an effective deterrent for fishing companies or vessel owners from engaging in IUU fishing activities.
- Despite several recent reforms, a growing body of IUU fishing evidence has shown that the Chinese DWF Regulation is not working. The inadequate regulatory framework and the lack of coordination between different entities responsible for managing DWF activities has created a hotbed for IUU fishing. The national law outlines the framework and principles of DWF management and sanctions. However, the provincial governments can design their own detailed sanctioning rules "after considering the specific circumstances in the province", for instance, by varying monetary sanctions according to the economic status of the province. Most of the monetary sanctions identified were given to the vessel captains rather than the companies, despite the corporate sanctioning provisions set out in provincial legislation. The national law should reflect international best practice and provide more concrete guidance for provincial regulations, working towards more responsible and sustainable fishery management.

1 Introduction

1.1 Chinese legal framework around offshore fishing activities

The Fisheries Law of the People's Republic of China first came into force in 1986 and the latest revision in 2013 is the overarching law that oversees all fisheries activities in China and its ocean territories. ¹⁵ Underneath this guiding principle, the key implementation policy for the DWF is the 2020 version of the DWF Regulations. ¹⁶ The DWF Regulations apply to every Chinese citizen, legal person, or other organisation intending to conduct offshore fisheries operations (i.e., fishing, processing, supplying, and transporting) on the high seas or in the exclusive economic zone (EEZ)¹⁷ of another country. An overview of the key legislation governing the activities of the Chinese DWF fleet is provided in **Table 1**.

Table 1. Chinese legal framework regulating offshore fishing activities. The year in which the latest version of the legislation came into force.

Category	Year	Chinese name	English name
General	2013	中华人民共和国渔业法	Fisheries Law of the People's Republic of China
General	2020	中华人民共和国渔业法实施细则	Implementing Regulations of the Fisheries Law
Distant water fishing	2020	远洋渔业管理规定	Offshore Fisheries Management Regulations
Vessel registration	2013	中华人民共和国渔业船舶登记办法	Fishing Vessel Registration Scheme
Vessel markings	2014	渔业船舶船名规定	Regulations on the Naming of Fishing Vessels
Vessel inspection	2003	中华人民共和国渔业船舶检验条例	Fishery Vessel Inspection Regulations
Vessel inspection	2020	渔业船舶检验管理规定	Regulations on the Administration of Fishery Vessel Inspection
Licensing	2018	渔业捕捞许可管理规定	Fishery Licence Management Regulations
Crew management	2014	中华人民共和国渔业船员管理办法	Measures for the Management of Fishery Crew of the People's Republic of China
Crew management	2017	关于继续在舟山市开展远洋捕捞行业引 进外籍船员试点工作的通知	Implementation Rules for the Introduction of Foreign Offshore Fishing Crew in Zhoushan
Monitoring, control and surveillance	2017	远洋渔业国家观察员管理实施细则	Management Specifications of National Observers in Offshore Fisheries
Monitoring, control and surveillance	2020	远洋渔船船位监测管理办法	Management Measures for Monitoring the Position of Offshore Fishing Vessels
Monitoring, control and surveillance	2020	关于加强远洋渔业公海转载管理的通知	Strengthening the Management of High Seas Transshipment in Distant Water Fisheries
Compliance	2020	关于试行开展远洋渔业企业履约评估工 作的通知	Compliance Assessment of Offshore Fishing Companies
Conservation	2020	关于加强公海鱿鱼资源养护 促进我国 远洋渔业可持续发展的通知	Strengthening the Conservation of High Seas Squid Resources for the Sustainable Development of PRC's Distant Water Fisheries
Conservation	2021	关于加强远洋鱿钓渔船作业管理的通知	Strengthening the Management of Distant Water Squid Fishing Vessel Operations
Conservation	2021	关于加强海洋哺乳动物保护管理工作 的通知	Strengthening the Conservation and Management of Marine Mammals
Conservation	2022	做好金枪鱼渔业国际履约工作的通知	Strengthening the International Compliance of Tuna Fisheries



1.2 Major government and institutions for regulating distant water fishing activities

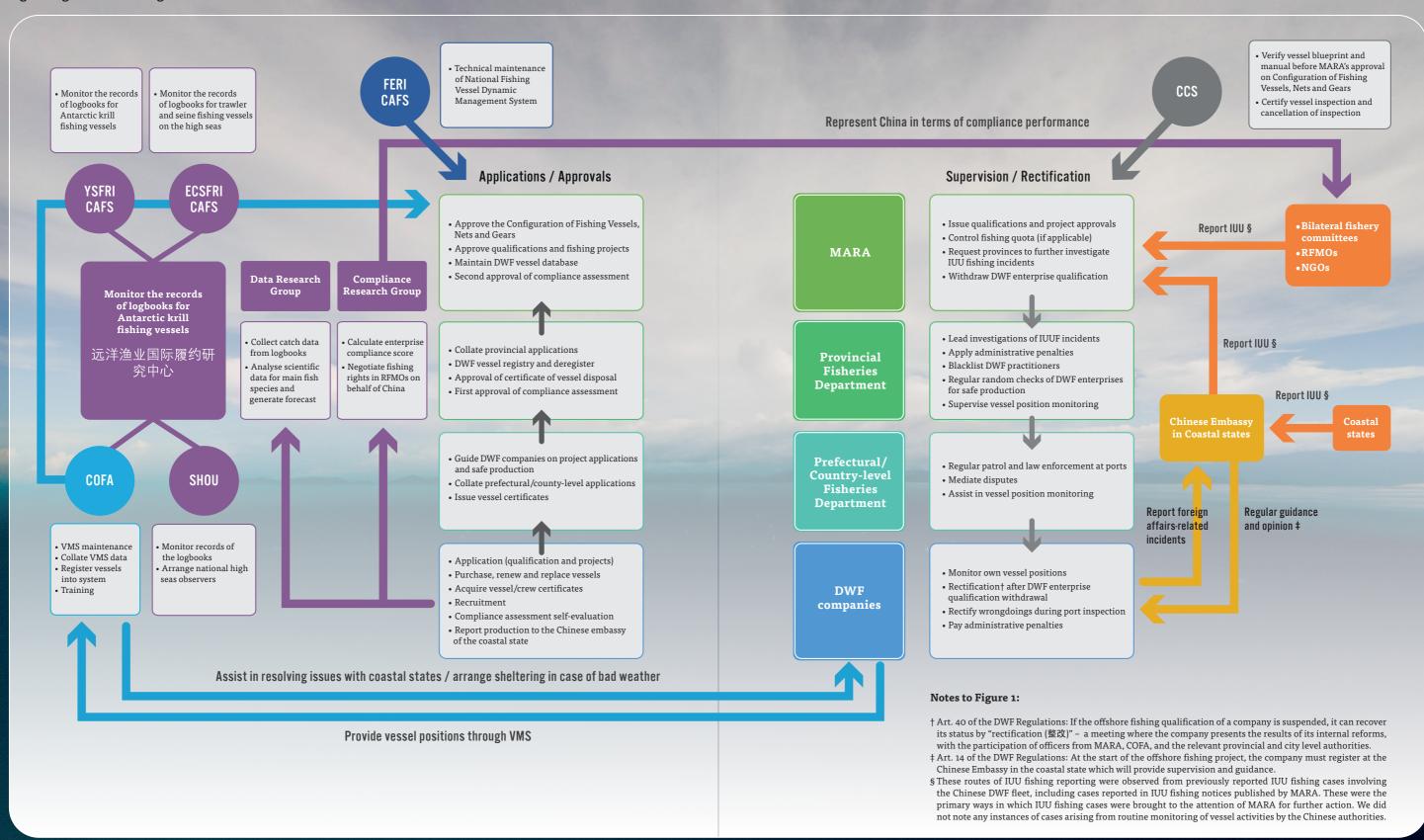
MARA (农业农村部) is the principal central government entity in charge of the authorisation and monitoring of DWF. In practice, most of the project authorisation and annual assessments go through at least a two-step approval process - approved in the first instance by the provincial governments (省农业农村厅) where the companies are registered, and secondly by MARA except for the projects of state-owned companies that are directly authorised by MARA. China Overseas Fisheries Association (COFA, 中国远洋渔业协会), a society consisting of DWF companies, institutions, economic cooperative organisations and related practitioners engaging in DWF, is commissioned by MARA to carry out the actual monitoring of DWF vessel activities. In addition, the China Classification Society (CCS, 中國 船級社) is commissioned by the Ministry of Transport (交通运输部) which supervises vessel inspections to examine and certify the seaworthiness of fishing vessels. The Ministry of Finance (财政部) supervises the distribution of subsidies and tax reductions related to the DWF industry. Lastly, several academic institutes are also involved with the scientific monitoring and data collection. The newly established International Compliance Research Centre for Distant Water Fisheries (远洋渔业国际履约研究中心) is associated to COFA and several academic institutes such as SHOU (上海海洋大 学), and the Chinese Academy of Fishery Sciences (CAFS, 中国水产科学研究院) including Yellow Sea Fishery

Research Institute (YSFRI, 黄海水产研究所), East China Sea Fishery Research Institute (ECSFRI, 东海水产研究所), and Fisheries Engineering Institute (FERI, 渔业工程研究所). **Figure 1** shows the relationships between different major institutions involved in the management of the DWF sector in China and their main responsibilities.

1.3 Methodology

The following sections of this report provide an overview of the key gaps in the current framework for authorising and controlling the activities of the Chinese DWF fleet and their implications in terms of facilitating unsustainable and IUU fishing. EJF reviewed the most important Chinese DWF regulatory framework documents in Mandarin Chinese and compared them with other DWF standards and the "ten principles for global transparency in the fishing industry". 18 Section 1 introduced the current DWF framework and other important policy documents promulgated by the Chinese government. In Section 2, we analyse in-depth each procedure occurring when a DWF company applies for official fishing projects, following the logic and workflow of the regular process. Section 3 discusses the monitoring measures for DWF activities, followed by Section 4 on the sanctioning regime. In Section 5, we briefly discuss the legality of employing foreign fishers onboard Chinese vessels - this is an important topic which has gained much attention in recent years due to the prolific cases of human rights abuses and bonded and slave labour. Recommendations are collated and compiled at the end of the report for addressing the gaps identified.

Figure 1. Responsibilities of DWF companies and each level of Chinese government and other institutions for regulating offshore fishing activities



2 Authorisation of DWF activities

2.1 Evaluation of offshore fishery projects

To carry out fishing operations overseas, a Chinese DWF company must apply for approval of its specific offshore fishery project(s), i.e. to allow its designated vessels to operate in a country's EEZ, within a RFMO Convention Area, or on the high seas.

Firstly, a set of minimum requirements need to be met if a company wishes to start DWF production.¹⁹ The company must be registered with China's market regulatory authority; in possession of lawful fishing vessels that satisfy national requirements and are suitable for the offshore fishery;²⁰ have a level of economic strength to undertake project operations and risk of accident;²¹ and the leaders and project managers must have at least three years' experience in offshore fishery production and management and be familiar with the DWF Regulations and related national and international laws. In addition, the company must have no record of

being disqualified as an offshore fishery company by MARA within three years prior to the application, nor have the principal or project leaders been disqualified (see **Section 4.3.2** Blacklist) by MARA during such period.

2.1.1 Fishing access and agreements

To fish in another country's EEZ, the DWF company first needs to provide a cooperation agreement concluded between it and its foreign counterpart, or the certification issued by the competent government department of the coastal state on its approval for fishing access (**Figure 2**), and the opinions of the Chinese embassy (consulate) in the coastal state where the project will be located.²²

There is no general framework to regulate the content of fishing agreements concluded by China for Chinese vessels to access fishery resources in another coastal state's EEZ. A fishery agreement or memorandum of understanding (MoU) is used to facilitate the practice of sustainable fishing, and to establish a communication channel between the signing parties, for instance when exchanging information on IUU fishing activities. It can either be signed between a Chinese government official or a Chinese DWF company and the officials or private companies from the coastal states.²³ The content of MoUs are usually not made publicly available.



2.1.2 Vessel quota and fishing effort

Despite the lack of requirements regulating the content of fishing agreements, MARA does exert a degree of control over vessel quota allocated to specific companies through the "Quota of Fishing Vessels, Nets and Gears (船网工 具控制指标)" process (Figure 2). Before a DWF vessel is built,24 CCS first needs to examine the vessel's blueprint, the layout of fishing gears, and the instruction manual (**Figure 1**). After the examination, companies are required to obtain a certificate of "Configuration of Fishing Vessels, Nets and Gears" (Configuration certificate) from MARA confirming the approved specifications of the vessel as regards fishing capacity (e.g., in terms of fishing gear, length, engine power and tonnage). This certificate applies to all inland, nearshore and offshore fishing vessels. After the vessel keel is put into place, the company can start to move onto the next step: applying for vessel inspection.²⁵

A vessel can also be built or purchased to replace the vessel quota of a disposed vessel (see **Section 2.1.6**). In these cases, the original Configuration certificate can be exchanged for a new one, and the vessel configurations can be adjusted according to the new vessel specificities but these must fit within the configuration requirement of a national standardised vessel type.²⁶

Vessel quotas, and thus the fishing capacity, for DWF vessels are controlled directly by MARA. MARA is responsible for distributing the quota between companies who have applied to fish in the waters of a coastal state or in an RFMO Convention area based on the terms of a bilateral or private agreement, or quota agreed through the relevant RFMOs.

MARA is required to restrict the sum of vessels and engine power applied to applicable fishing grounds through this process. The national goal was to limit the size of the DWF fleet to a maximum of 3,000 vessels by the end of 2020, although there were no national thresholds for the sum of engine power.²⁷ MARA has also announced that it will suspend the approval of Configuration certificates for newly built high seas fishing vessels,²⁸ and the Configuration certificates for newly built, replaced, or purchased transport or supporting vessels²⁹ starting from 2017 and 2020, respectively.

2.1.3 Vessel inspections

After a vessel is built, replaced, or purchased, the company is required to have the vessel inspected by CCS to verify the accuracy of configuration and safety measures. ³⁰ Vessels less than five years old which are operated in the EEZ of a third country, and fishing vessels less than ten years old which are operated on the high seas, benefit from an exemption where they only need to be confirmed via a self-evaluation and declaration. ³¹ An exception is where the vessel has suffered major damage;

has undergone unauthorised structural alterations or major changes in the vessel configuration since the last survey; or the declaration of safety and technical condition of the fishing vessel and the self-inspection report submitted have been found to have been falsified in the past two years. 32 The exemption may pose a potential loophole in vessel inspections. For instance, in 2018, Fuzhou Dongxinlong Ocean Fishing company changed the configurations of six company-owned vessels without authorisation (**Appendix I**) to take advantage of fuel subsidies.

2.1.4 Vessel registration and port controls

Following inspection, the owners are required to register their vessel(s) with the provincial registration authority where the company is registered.33 To apply for registration under the Chinese flag, the owner must submit supporting documents including, among others, a certificate of ownership registration, certificate of inspection and the Configuration certificate.34 Where the vessel owner is different from the operator (e.g., the vessel is operated under a dependency model/ agreement), the owner is also required to submit the dependency agreement and the company registry of the operator. The owner is not, however, required to supply information on beneficial ownership, nor is the registration authority legally required to verify the compliance history of the vessel prior to registration. There is also no clear provision and mechanism within the legislation for vessels to be deregistered in the event of involvement in IUU fishing.35

MARA is responsible for maintaining the DWF vessel database, and the supervision and management of the vessel registry.³⁶ The national DWF vessel data is stored and managed in a system called the "National Fishing Vessel Dynamic Management System" (全国渔船动态管理系统). It is technically supported by FERI and CAFS. (**Figure 1**).

In practice, DWF vessel owners are requested to register their vessels with their provincial fisheries authorities,37 which collect registration updates (adding new registration entries or deleting entries for disposed vessels, etc.) in the province and submit this data to MARA for maintenance. Any fishing vessel owned by a Chinese citizen or legal person, or chartered from abroad by a legal person as a bareboat charter, is required to be registered.³⁸ The provincial authorities are required to keep a register of all fishing vessels registered under their jurisdiction and are required to make this available to rights holders and interested parties "in accordance with the law".39 The vessel registry contains vessel identification details, including vessel name, call sign, registration number, previous names, port of registration, vessel technical specifications and information on ownership (registered owners, co-owners and operators).40

From 2019, port authorities at the prefectural or county level have been required to keep track of the vessels entering and leaving their ports. ⁴¹ The DWF companies are responsible for updating the status of their vessels in MARA's vessel system when entering and leaving port, ⁴² and the updates should be verified by the prefectural or county level government. Through this process, the Chinese government aims to empower the local

authorities to better regulate DWF vessels using their ports. 43 However, according to a 2019 report on the "Law Enforcement Inspection Team of the Standing Committee of the State Council", the insufficient management of vessel registries and law enforcement by local port authorities was one of the key issues of concern as regards the regular monitoring of fishing-related activities. 44

Box 1 - Ghost vessels at sea



In recent years, there have been a number of unregistered Chinese vessels conducting fishing activities overseas (**Appendix I**). This is partly because the provincial authorities have insufficient capacities to monitor vessels coming in and out of Chinese ports, and to apply deterrent sanctions to vessels for non-compliance with rules concerning vessel registration. For instance, in 2017, the South Pacific Regional Fisheries Management Organisation (SPRFMO) reported four IUU fishing vessels which were apparently linked to Chinese ownership. MARA subsequently confirmed these vessels to be without vessel names and numbers, port of registry and certification which were referred to as "Three no's vessels" (三无船). ⁴⁵ During the fifth meeting of the North Pacific Fisheries Commission (NPFC) in 2019, Japan presented AIS data for Chinese-flagged vessels proposed for the IUU fishing vessel list and stressed the need for China to strengthen the control over its nationals undertaking illegal fishing activities based within Chinese ports. ⁴⁶

2.1.5 Approval of offshore fishing project

Once the preceding steps have been completed, the owner of the vessel/DWF company is required to apply to MARA for approval of their offshore fishing project(s) (**Figure 2**). The company needs to submit information on: the fishing vessel(s) involved (names, owners, nationality, operating type, vessel length and engine power); the principal project managers; the DWF company and coastal state company it is in cooperation with (if applicable); and the pathway of gaining fishing access.⁴⁷ Supporting documentation

must include, among others: the project feasibility study report (providing reference to the fishing quota, where applicable⁴⁸); the cooperation agreement between the applicant and its foreign counterpart or the certificate issued by the competent government department of the coastal state on its approval of fishing access; and the opinion of the Chinese embassy (consulate) in the country where the project is located.

If the applicant intends to establish a sole proprietorship or an equity joint venture abroad, it shall also provide

the "Certificate of Overseas Investment by Enterprises" issued by China's Ministry of Commerce and the company registration certificate issued by the relevant government department of the coastal state.

Following the approval of a DWF project, if the applicants intend to operate on the high seas, they shall also apply for the "Licence for Fishing on High Seas".⁴⁹ The required documents include the application form, business licence, vessel inspection, nationality and ownership certificates, fishing project approval documents, and for first time applicants, the Configuration certificate.⁵⁰ In addition, a vessel can also apply to MARA for permission to reflag,⁵¹ e.g. to the flag of the coastal state of destination. According to EJF's previous investigations, it is not uncommon for vessels to leave their home ports as Chinese vessels, and to change their flags after arriving at the coastal state.

There is no specific requirement under the DWF Regulations or other fisheries legislation for details of approved offshore fishery projects to be made publicly available. However, such information is considered to fall within the general legal framework on improving governmental transparency – that relevant competent authorities (in this case, MARA) should actively disclose information on administrative decisions (e.g., application approvals and administrative penalties),⁵² which likely includes the approval of offshore fishing projects (and DWF qualifications – see **Section 2.2**). According to the legislation, the information should be complete and easy to access for the public.

In practice, however, information published by MARA on approved DWF projects is often incomplete. For instance, our collection of MARA-approved fishing projects in 2020 showed a missing "second batch" of announcements, of the total eight batches of approved projects. 53 Incompleteness was also identified in relation to the batches of approved projects with fewer vessels listed than the actual number of vessels operating in a given area. Worse still, cases were identified of countries reporting vessels flying the flag of China operating in their waters even though these countries were not among EEZs covered by approved offshore fishery projects. This raises concerns about the reliability and accuracy of data published. Moreover, the notices are not easily located in one place on the MARA website.

The information which has been made publicly available is also limited. As regards offshore fishing projects, this is confined to the company, name of the vessel, type of fishing gear, location of the fishing grounds, and period of authorisation. As regards DWF qualifications (see **Section 2.2**), this is restricted to the names of the authorised companies.

Our discussions with stakeholders with in-depth knowledge of the matter confirm that there may be vessels

operating outside of the framework for authorisations overseen by MARA. For example, in circumstances where a Chinese national living and working abroad (i.e. West Africa) purchases a vessel and may directly or indirectly be participating in the Chinese DWF industry (i.e. through opaque corporate beneficial ownership), this vessel may not be seen by MARA as a Chinese DWF vessel. Owing to jurisdictional issues, there may be no legal ground to confirm that the vessel participates and benefits the Chinese DWF in practice, and may therefore not be considered part of the Chinese DWF fleet and subject to its regulatory requirements.

This is an issue requiring further attention and follow up to understand the scope of any potential loopholes and the implications. It is recommended that the Chinese government clarifies, in the future Fisheries Law and the DWF Regulations, rules applicable to Chinese citizens who own or operate a fishing company and/or vessel abroad who are directly or indirectly participating in the Chinese DWF with or without MARA's approval and, in the latter case, how these will be considered under applicable Chinese laws and regulations.

2.1.6 Vessel disposal and replacement

Issues have also been identified with the procedure for disposing of vessels at the end of their lifespan. This has resulted in several IUU fishing incidents involving vessels that had already been supposedly disposed of and deregistered from the Chinese vessel registry. In May and October 2018, two vessels were reported by an RFMO as carrying out fishing operations without appearing on the RFMO's authorised vessel list.⁵⁴ MARA found in its investigation that these vessels had ports of registry and approved offshore fishing projects in previous years but were reported as "already disposed of" (all vessel registry certificates were cancelled). This instance exemplifies that the current vessel disposal scheme is not comprehensive enough.

Chinese-owned vessels operating under third country flags are required to be disposed of overseas, whereas Chinese-owned and flagged vessels can be disposed of in China or overseas. 55 To dispose of a vessel overseas, the owners first need to obtain a "Certificate of Cancellation of International Fishery Vessel Inspection" from the CCS branch near the coastal state. With the certificate from CCS and a statement from the vessel owner that the vessel has been disposed of either by scrapping or sinking, the vessel owner can apply for the "Certificate of Dismantling, Destruction or Disposal of Fishing Vessels" and the "Certificate of Deregistration of Fishing Vessels" from the provincial government.⁵⁶ The provincial governments are required to scrutinise the evidence including video footage and pictures when approving the certificates.⁵⁷ The company needs to submit these four documents alongside the original Configuration

certificate as supporting material when applying for fishery projects if it plans to use the replacement vessels for fishery production.⁵⁸

The fact that a number of ghost vessels still operate and carry out fishing activities underlines the ineffectiveness of the disposal procedure. In the new notice on vessel disposal published in early 2021, MARA instructed the CCS and provincial governments to implement more stringent measures to verify that vessels have been disposed of overseas.⁵⁹ However, it is still too early to know whether the new measures will improve the situation in practice.

2.2 Evaluation of DWF qualifications

For companies that have started to implement an offshore fishing project approved by MARA, and whose operations are in line with the DWF Regulations/other relevant laws with no serious violations, MARA will grant a DWF qualification and issue a "Certificate of Qualification of Offshore Fishing Companies of MARA". 60 Acquiring a DWF qualification provides the basis for a company to receive financial support (subsidies or rewards) from all levels of the Chinese government. 61 Authorised DWF companies and their qualification certificate numbers are announced in notices published by MARA in batches together with limited details of the approved fishing projects.

The drafted revision of the Chinese Fisheries Law (see **Appendix IV**, new Art. 30) clarifies the purpose of the DWF qualification, specifying it as a requirement for Chinese companies to legally undertake DWF activities, alongside the approval of individual offshore fishery projects (see **Section 2.1** above). Although this has been the approach in practice, the clarification is critical, given that the ongoing assessment of offshore fisheries projects is carried out through the annual review of DWF qualifications, as opposed to the review of individual projects. Obtaining a DWF qualification is therefore not only a means of acquiring subsidies from the government, but a precondition for engagement in DWF activities.

2.2.1 Annual review of DWF qualifications

The DWF qualification is annually reviewed and renewed by MARA.⁶² To apply for the annual review, companies need to submit an offshore fishing project implementation report for the previous year (for each approved offshore fishing project), an application formula (including basic data related to the company and offshore fishing projects), ⁶³ valid vessel ownership certificates, nationality certificates, ⁶⁴ and inspection certificates. Companies which have been fishing in waters under the jurisdiction of other countries are also required to provide the fishing licence and vessel registration certificate

issued by the competent government department of the coastal state, including its Chinese translation, as well as the opinions from the Chinese embassy (consulate) in the coastal state. The fishery department of the provincial government must then examine the material, provide its opinion on the examination and pass it to MARA for the final authorisation. Another important record MARA will take into account during the annual review is the transmission of VMS data in accordance with the regulations. ⁶⁵ This record is regularly collated and analysed by COFA and reported to MARA for consideration (see **Section 3.2**). It is crucial to point out that once the qualification of the company is reauthorised, the existing offshore fishing projects will be automatically confirmed as well (**Figure 2**). ⁶⁶

Since January 2020, a new compliance assessment has been integrated into the annual review of DWF qualifications and is currently in its trial phase. ⁶⁷ The objectives of the compliance system are to further strengthen the standard management of offshore fisheries, to improve the level of international compliance, to crack down on IUU fishing activities, and to establish China's image as a responsible fishing power. ⁶⁸

The compliance assessment requires DWF companies to grade themselves on the performance of their DWF fleet in terms of legal compliance (including compliance with Fisheries law), supervision and management, among others. The provincial governments are tasked to verify and approve the compliance score on a preliminary basis, based on the supplementary material submitted by the company and other sources. MARA then issues the final approval and considers the outcome as a factor in the annual review to determine whether or not the company's DWF qualification should be renewed. The compliance assessment scores for 2019 and 2020 are available. 69 The most recent version of assessment criteria is from 2021 and it includes 55 criteria in total,70 with each criterion weighted in terms of numbers of points (Appendix II). The current criteria are divided into three categories: (i) basic assessments of the business/company, including internal governance and safe production; (ii) violations - company vessels conducted IUU fishing could be deducted of points, including violating vessel monitoring requirements, use of prohibited fishing gear, catching prohibited species and failing to pay wages to crew; (iii) compliance innovation - addition of points, including technological innovation, active implementation of non-mandatory real-time monitoring of fishing vessels, electronic fishing logs and product traceability systems, and opening up of new fishing grounds. Despite being in its trial phase, the assessment scores have already been integrated into the calculation formula for the new DWF subsidy programme⁷¹ which is a successor of the fuel subsidy programme (Box 2).

Box 2 - Current Chinese DWF subsidies framework



Since 2015, the Chinese government has not issued fuel subsidies for its DWF sector. Instead, the fuel subsidies were integrated as a part of the "Fisheries Development Fund" and were provided under the subsidy programme of "Utilisation of International Fishery Resources" (国际渔业资源开发利用).⁷² Since 2021, this subsidy programme was subsequently renamed to "Surveying and Conservation of Fisheries Resources and International Compliance Capacity Enhancement" (渔业资源调查养护和国际履约能力提升).⁷³ Substituting the previous method for calculating fuel consumption, the new formula for calculating subsidies has taken into account the compliance assessment score and the vessel type:

Single-vessel compliance base (单船履约基数) = compliance assessment score (履约得分)×coefficient of vessel type (船型数据)×coefficient of adjustment (调节系数)

Where the compliance assessment score is the annual result published by MARA which could potentially amount to 120 points; coefficient of vessel type ranges from 2 for chilled tuna longliners to 30 for Antarctic krill factory vessels; coefficient of adjustment is the total sum of "compliance days" with valid VMS records divided by 365 days. The coefficient is 0.8 in the event that a vessel has undergone reflagging.

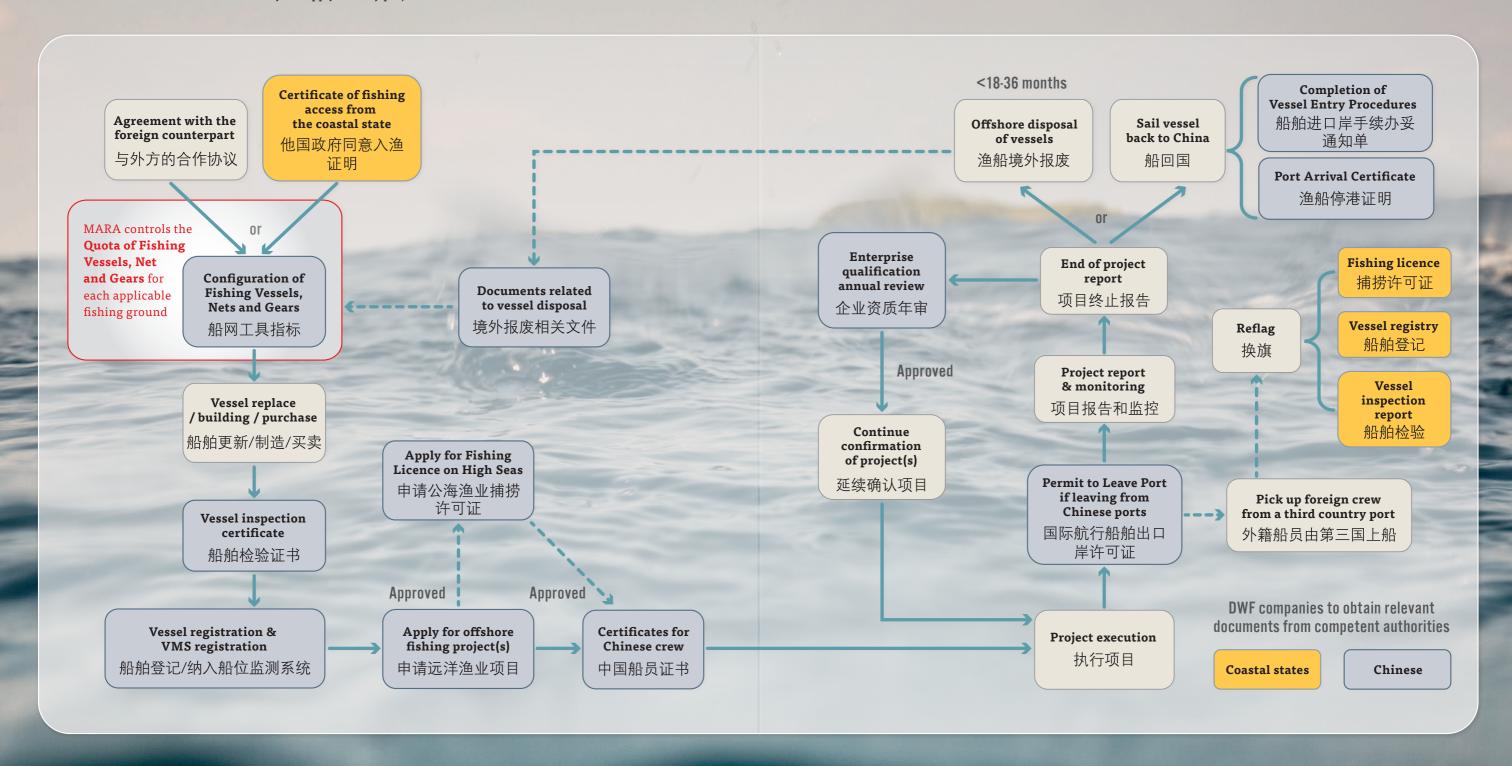
Single-vessel subsidy amount (单船拟补助金额) = Single-vessel compliance base (单船履约基数) × city subsidy coefficient (单位补助金额)

Where the city subsidy coefficient is the sum of distributable funds received by the regional authority divided by the sum of the single-vessel compliance base for all vessels under the jurisdiction of the authority. Essentially, this means that the subsidy distributed to a certain city is a big pie, and all the vessels registered in this region apply to have a share of this pie based on compliance factors mentioned above.

The Chinese central government provides the DWF subsidy to provincial governments via "Special Transfer Payments"(STPs) (中央财政转移地方专项资金). In addition to the aforementioned subsidy, the "Fisheries Development Fund" also includes major programmes such as "Fisheries Public Infrastructure Facilities" (construction of overseas fishing bases) and "DWF Vessel Decommissioning and Replacement".⁷⁴

Figure 2. Diagram of an offshore fishing project life cycle under the Chinese Distant Water Fishing Regulations.

The dotted lines indicate situations that may not apply to every project.

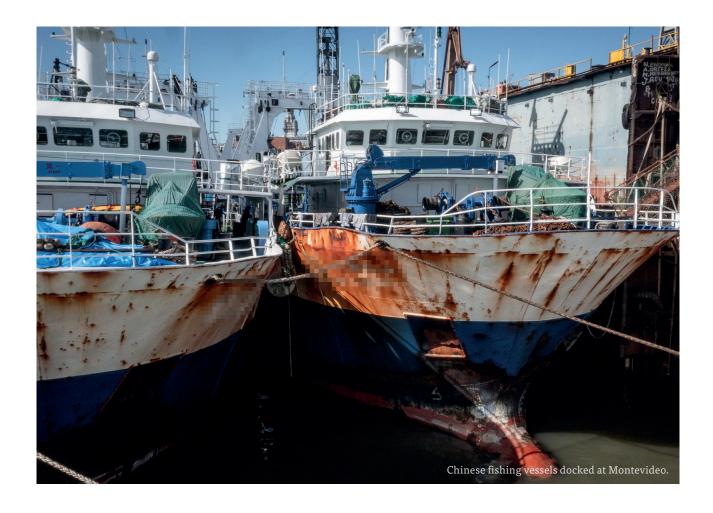


3 Monitoring, control and surveillance

3.1 Vessel identification

There is no requirement under Chinese law for fishing vessels that are eligible under the IMO Ship Identification Number Scheme to carry an IMO number. Fishing vessels are, however, allocated a unique vessel identifier (UVI) when they are registered to the Chinese flag and are included in the "National Fishing Vessel Dynamic Management System"75 (see Section 2.1.4). The registration number has 16 digits and is a combination of a standardised province and city code (6 digits), vessel construction year (4 digits) and month (2 digits), and a serial number (4 digits). Vessels are further allocated a serial number on their nationality certificate, which is a combination of: (acronym of the province)+CHAUNDENG+("JI" for nationality registry or "QUAN" for ownership registry)+(year)+serial number. Both numbers have been reported as a part of the vessel information by their Chinese owners in various RFMO approval lists. Although IMO numbers are not mandatory under Chinese law, many RFMOs now require vessels to obtain an IMO number (e.g. NPFC and Indian Ocean Tuna Commission, IOTC) in order to fish within their Convention area or for species under their management. This means that, in practice, a significant number of Chinese vessels are registered under the IMO Ship Identification Number Scheme despite the absence of a national requirement, with around 65% of Chinese DWF vessels (and 97% of Chinese DWF vessels operating within RFMOs) having an IMO number.⁷⁶

For vessels with Chinese nationality, MARA has introduced rules for vessel names and markings, including, the naming rules and format⁷⁷ and the location where the name plate or markings should be hung or painted.78 The nameplate is required to be kept intact, clear, and not concealed.79 However, vessel names are only required to be marked in simplified Chinese which can hinder the identification of vessels by international or national authorities when fishing outside of Chinese waters. Vessels are required to follow the rules of the coastal states or RFMOs in terms of flagging and carrying suitable markings when fishing in waters under the jurisdiction of these entities.80 This will include compliance with the "FAO Standard Specification for the Marking and Identification of Fishing Vessels" which is required by most RFMOs.81



Box 3 - Vessels using stolen identities



In 2018, eight cases of vessels using stolen names, identification numbers and markings (套牌船) were reported by a third party and confirmed by MARA as IUU fishing vessels. ⁸² In February 2018, Japan reported nine vessels to the Chinese authorities for conducting illegal fishing in the North Pacific. Following investigations by MARA, it was found that three vessels were fishing legally under MARA-approved fishing projects, while the other six vessels were using stolen vessel names, identification numbers and markings. The fifth meeting of the NPFC likewise identified two vessels on the 2019 IUU fishing vessel list that were operating using the same names as Chinese legally authorised vessels. ⁸³ These incidents, and many others, underline the importance of enhancing the standardisation and transparency of vessel information, to better prevent and manage IUU fishing activities especially on the high seas or in areas managed by RFMOs.

3.2 Vessel monitoring systems

According to the DWF Regulations, all Chinese DWF vessels are required to install and maintain a satellite-based VMS. ⁸⁴ Only when the coastal state restricts the installation of VMS, can a company choose to install and use AIS instead. ⁸⁵ The transmission of vessel positions via AIS is not mandatory for DWF vessels under Chinese law.

DWF companies must apply for their vessels to be included in the national VMS before they are able to apply for an offshore fishing project (**Figure 2**). ⁸⁶ The record of vessel positions reported via VMS is relevant for applying for the continuation of fishing projects. ⁸⁷

MARA has commissioned COFA to develop and maintain the official VMS platform for tracking DWF vessel positions. The VMS control terminal is located at COFA headquarters, however, the data for each individual company is also accessible to the project managers of DWF companies and competent authorities at the various

levels through an app called VMS China (渔信达). 89 All vessels operating under offshore fishery projects are required to be equipped with VMS (Inmarsat-C or ARGOS system) 90 and to transmit vessel positions using this platform. This requirement applies to vessels operating under Chinese and foreign flags. 91 VMS positions are required to be transmitted at least 24 times per day, i.e., at least once every hour, of which no fewer than 18 vessel positions should be "valid" VMS records. 92

While at least three entities are tasked to monitor VMS data (i.e. COFA, provincial and prefectural government, and the DWF company), it is unclear to what extent they are proactively monitoring vessel activities and how they cooperate with one another in practice. Based on the national Regulations, DWF companies have the primary responsibility for monitoring their vessels, while the provincial and prefectural governments have the responsibility for verifying the results (**Figure 1**).⁹³

COFA, meanwhile, is in charge of maintaining the VMS platform and providing monthly and annual reports of VMS positions to MARA.

According to published data, most of the IUU fishing sanctions issued by MARA appear to have been issued following information notified to China by NGOs, RFMOs, Chinese citizens, coastal states and other interested governments (e.g. Japan, see **Appendix I**). While it is possible that MARA only publishes IUU fishing cases under particular scrutiny, there are few (if any) cases where sanctions were issued based on the initiative of the Chinese government, i.e. based on routine VMS or other monitoring. This suggests that more proactive monitoring is needed by the Chinese government to effectively identify IUU fishing activities as they occur and follow up with the appropriate sanctions.

Vessels are permitted to report their positions manually should they experience a malfunction with their VMS device. Positions must be reported once per hour following the device's malfunction and are included in the VMS platform. Vessels are given 30 days to repair the device, with the help of COFA, while continuing to fish as usual. However, the provision on manual VMS reporting has been abused by operators. In March 2018, two Chinese vessels – Han Rong 353 and Han Rong 355 – anchored in ports of Djibouti and Somalia to take care of an injured crew member and to carry out repairs. Following an investigation by MARA prompted by information-sharing from the European Union, it was found that the operators were using manual VMS



reporting to create an illusion that the vessels were still out at sea, to initiate a fuel subsidy fraud. 95 This incident highlights the importance of mandating AIS – despite the system's own limits – in addition to VMS, particularly when one system malfunctions.

COFA and CAFS are currently encouraging Chinese squid fishing vessels operating on the high seas to install and use e-logbooks which are integrated into the VMS platform.⁹⁶ The information in the e-logbooks includes operating time and location, type and yield of catches, and environmental parameters. This fishing data is to be transmitted to the "International Compliance Research Centre for Distant Water Fisheries - Data Research Group" (Figure 1) - to be analysed in real time.97 The stated goal of the integrated VMS and e-logbook system is to improve product traceability and forecasting of fishing grounds based on scientific data to assist vessels in pursuing fisheries resources.98 Several academic institutes have been tasked with monitoring the logbooks, whether in the form of paper-based or electronic-based logbooks. YSFRI monitors the Antarctic krill vessels and the ESFRI from the CAFS monitors the trawlers and the purse seine fishing vessels on the high seas. SHOU monitors the rest of the vessels such as the squid or tuna longliners.

3.3 Observer coverage

In 2016, the Chinese government issued specific rules to achieve minimum observer coverage requirements stipulated under relevant RFMOs.99 The focus of the observers is on the collection of scientific (biological) data, and their work is tightly linked to the "International Compliance Research Centre for Distant Water Fisheries - Data Research Group". The dispatch of national observers is coordinated by SHOU (Figure 1). It is assumed that the observers have a mandate to document and report on IUU fishing activities although this would benefit from clarification in any future amendment of the observer's regulation, including reporting on noncompliance with quota and gear requirements, or entry into prohibited areas, etc. Observers have also been seen to report on human rights abuses concerning the treatment of crew or observers in their reports. 100

In 2020, MARA published a notice concerning the regulation of high seas trans-shipment by DWF vessels. ¹⁰¹ The national observer programme for transshipment on the high seas was officially launched in 2021 with the deployment of five observers onto Chinese fishery transport vessels. Starting from 2021, all transport vessels operating on the high seas must receive the deployment of national observers, except where onboard conditions are unsuitable, in which case a monitoring camera must be installed, and the trans-shipment report must be submitted along with the video footage to COFA.



4 Enforcement and sanction

4.1 Definition of IUU fishing offences

The new DWF Regulations introduced a more comprehensive definition of IUU fishing compared to the previous legal framework. The DWF Regulations set out the following fisheries violations:¹⁰²

- (I) Engaging in offshore fishery production without approval of MARA, or engaging in fishing production on high seas without obtaining the "Licence for Fishing on High Seas"
- (II) Concealing the truth or practising fraud when applying for or carrying out a DWF project
- (III) Failing to carry out fisheries production according to the operation type, place, time limit, variety or quota as approved by MARA or as prescribed in the Licence for Fishing on High Seas, or entering the waters under the jurisdiction of any other country to operate without approval
- (IV) Fishing with a fishing gear or fishing method prohibited by the coastal state or the RFMO having jurisdiction, or catching any fish species, rare or endangered aquatic wildlife or other marine organisms prohibited by the coastal state or the RFMO having jurisdiction
- (V) Failing to obtain a valid vessel certificate, failing to comply with the relevant provisions on DWF vessels, or recruiting or dispatching DWF crew in violation of these provisions

- (VI) Hampering or rejecting the supervision and administration of the fishery administrative department, or hampering or rejecting the inspection conducted by the law enforcement personnel who have jurisdiction on high seas or in the sea areas under the jurisdiction of any other country
- (VII) Failing to report information or provide information according to these provisions, or purposely reporting or providing false information or statements, or failing to fill out the fishing logbooks as required
- (VIII) Refusing to accept a national observer or an observer assigned by a RFMO having jurisdiction, or interfering with his/her normal work
- (IX) Purposely turning off, moving, or interfering with the equipment of position monitoring or automatic identification of fishing vessels, or purposely submitting false information, or changing the name, identification code, marking or configuration of a fishing vessel without permission, or changing the main engine of a fishing vessel without permission
- (X) Engaging in, supporting, or assisting in IUU fishing activities as determined by relevant international fisheries organisation
- (XI) Occurrence of major work safety liability accidents
- (XII) Occurrence of any foreign-related illegal events, causing serious adverse consequences and
- (XIII) Other punishable acts according to law.

Although much more complete, certain key offences have been omitted from the list of fisheries violations in the DWF Regulations if compared with the international standards and those of other important fishing nations such as the European Union. ¹⁰³ These include the following offences, some of which have been included in the provincial regulations but not in the national regulations:

- Taking on board, trans-shipping, or landing undersized fish
- (II) Concealing, tampering with or disposing of evidence relating to an investigation into fishing activities
- (III) Concealing vessel markings104 and
- (IV) Operating without nationality and therefore being a stateless vessel, in accordance with international law.

The DWF Regulations include a general provision that prohibits DWF companies, fishing vessels or crew from engaging in, supporting or assisting IUU fishing activities. The Regulations also create a specific offence for a DWF company, fishing vessel or seaman to engage in, support or assist IUU fishing activities as determined by a relevant international fisheries organisation. Although these provisions are relatively broad, they fail to specify that any individual citizen of China can be held liable for engaging in, supporting or assisting IUU fishing activities. The DWF Regulations also fail to

include the conduct of business connected to IUU fishing as an offence. These omissions impede the ability of the Chinese authorities to effectively investigate and sanction individuals with financial and beneficial interests in IUU fishing activities, among others.

Going a step further, it is worth noting that China repeatedly – in RFMO meetings and in the context of discussions on IUU fishing vessels cross-listing – explained that it lacks legal basis to take action against vessels listed as having engaged in IUU fishing activities by RFMOs it is not a member of. This interpretation of RFMO rules has been discussed by other parties to these organisations and it is understood that MARA is seeking further legal advice from the Ministry of Foreign Affairs.¹⁰⁷

4.2 Control over nationals

The DWF Regulations include only limited provisions to address the involvement of Chinese nationals in IUU fishing where the vessels concerned are flagged to third countries. Although the Regulations apply to every Chinese citizen, legal person, or other organisation intending to conduct offshore fisheries operations (i.e. fishing, processing, supplying, and transporting) on the high seas or the EEZ¹⁰⁸ of a third country, ¹⁰⁹ Chinese nationals have been observed operating vessels outside of the DWF authorisation framework and, apparently, without the approval of MARA, for example in West African coastal states.



The DWF Regulation does not currently regulate any business-related activities associated with DWF, whether in terms of authorisation or sanctions for IUU fishing infringements. This means, in practice, that authorisation is limited to direct Chinese ownership of fishing vessels, but does not regulate, for example, Chinese ownership of overseas fishing companies or the ultimate Chinese beneficiary in overseas joint ventures. The Regulations do not include a mechanism to require Chinese nationals to notify MARA of any legal, beneficial or financial interests in vessels flagged to third countries, and do not include, within the definition of IUU fishing, the conduct of business directly connected to IUU fishing. These include the trade in/or the importation of fishery products tainted with illegality, which would expand the scope of the DWF Regulations and make it easier to prosecute individuals benefiting financially from illegal activities conducted overseas.

The DWF Regulations also fail to create an explicit offence for Chinese nationals to support or engage in IUU fishing or to conduct business connected to IUU fishing, for example, as beneficial owners of fishing vessels engaged in IUU fishing activities (see **Section 4.1**). This creates a barrier to the prosecution of Chinese nationals for engagement in IUU fishing operations overseas, for example via local joint ventures or other arrangements with local companies in coastal states.

4.3 Sanctioning regime

Based on the IUU fishing notices published intermittently by MARA (see **Appendix I**), MARA usually undertakes the initial investigation into IUU fishing infringements that are brought to the government's attention by a third party (NGO, RFMO, coastal state or other country). This is the most common route by which an investigation is initiated - in theory an investigation could also be initiated by the provincial government based on vessel monitoring data, among others, although this rarely (if ever) occurs in practice (see Section 3.2). In some cases, IUU fishing violations will be charged directly from provincial governments, primarily those uncovered by customs and port supervision authorities. For instance, prefectural customs have investigated issues such as failing to properly declare DWF caught fish110 and initiating fraud regarding imported fishing devices,111 while port supervision authorities have been seen to regularly examine and penalise DWF vessels for sailing without adequate officers onboard when returning from offshore fishing grounds.112

Following an investigation by MARA, if a violation is found, MARA will inform the provincial government to carry out the sanction. The provincial government will either issue charges following MARA's IUU fishing notice or initiate their own investigation into the infringements

of the DWF companies located within their province. The competent authorities to decide and impose administrative penalties for IUU fishing are the provincial governments (**Figure 1**). ¹¹³ Provincial governments have the mandate to impose financial penalties on vessel owners, operators and captains, and to blacklist practitioners (captains, project leader or key management personnel) with respect to offences set out in Article 39 of the DWF Regulations, in accordance with the Fisheries Law, the "Law on the Protection of Wildlife", and other relevant laws and regulations, such as the "Measures for the Management of Fishery Crew of PRC".

However, only MARA has the mandate to suspend or cancel a company's DWF qualification in the event of an IUU fishing infringement and will consider the seriousness of the circumstances and extent of impact of the violation in its decision to suspend or cancel the qualification.¹¹⁴

The principles of IUU fishing sanctions are set out in Chapter Five of the Fisheries Law of PRC. Each provincial Agricultural Department is permitted to develop detailed sanctioning rules in its provincial legislation 'after considering the specific circumstances in the province'.115 The level of detail set out in the provincial legislation, characteristics of the administrative penalty schemes, and their reliance on the national regulations varies between provinces (Appendix III). Most of the national and provincial sanctions take the form of administrative penalties. However, certain infringements may constitute a criminal offence and result in a prison sentence depending on the severity of the case. For instance, according to the Shandong provincial regulations, any of the following violations may constitute a criminal offence, depending on their severity: using prohibited fishing gear or mesh size; exceeding requirements on the percentage of juvenile fish in the catch; using falsified documentation; continuing to operate a scrapped vessel; changing the technical specification of a vessel; catching or killing species protected by the national law;116 or other "foreign affairs-related" incidents such as fishing in another country's EEZ without approval.117 Violations such as smuggling of unreported fish have also been documented in criminal proceedings. 118

4.3.1 Monetary penalties

The current version of the Fisheries Law, which entered into force in 2013, provides limited guidance to provincial governments on the application of monetary penalties, such as criteria to be taken into account to determine the level of penalty or severity of offence. Specific penalty levels are provided for just four kinds of infringements: using prohibited fishing methods or net devices (maximum fine of 50,000 yuan - approx. US\$ 7,500), fishing without a licence (maximum fine of 100,000 yuan

- approx. US\$ 15,000), fishing without following the provision of the fishing licence (maximum fine of 50,000 yuan - approx. US\$ 7,500), and documentation fraud related to fishing licences (maximum fine of 10,000 yuan - approx. US\$ 1,500). 119

Criteria has, however, been developed at the provincial level – for example, in Shandong province, the severity of documentation-related fraud is judged on the number of documents/certificates that do not meet the standard required; for vessel-related infringements (e.g., tonnage fraud), severity is judged on the length of the vessel; and for VMS-related fraud, severity is judged on the frequency of the infringement¹²⁰ (**Appendix III**). It is worth noting that MARA is especially concerned if an IUU fishing incident is "foreign-affairs related", ¹²¹ especially during periods when China is hosting or participating in international forums. ¹²² In these cases, the IUU fishing infringements are likely to be processed on a more serious scale.

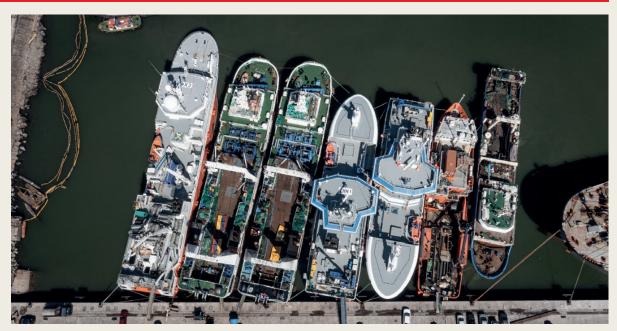
Critically, neither the provincial nor the national legislation provides for a minimum fine in respect of IUU fishing infringements. Although the new draft Fisheries Law, which is currently under review, increases and clarifies the sanctions for IUU fishing offences, it only provides for a maximum fine of 1 million yuan, or around US\$ 155,000 (approx.), for any IUU fishing infringement. 123 This appears insufficient to provide an effective deterrent for large, in some cases state-owned, DWF companies which may report operating revenues upwards of US\$100 million annually. 124 In contrast, the European Union IUU Regulation provides for a minimum fine of at least 5 times the value of the fishery products caught through IUU fishing, and 8 times the value of the products in the event of a repeat offence. 125

We examined three of the most important DWF provinces - Shandong, Zhejiang, and Fujian - and their provincial administrative penalties on IUU fishing (Appendix III). 126 Across all three provinces, engagement in any of the offences defined as IUU fishing (see **Section 4.1**) attracts a fine in line with the provisions of the Fisheries Law, with all three provinces introducing graduated penalties according to the severity of the infringement. There are, however, some divergences in levels of fines across the different provinces for certain vessel-related infringements. This may encourage operators to engage in jurisdictional arbitrage, where they register their vessels where the sanctions are the lowest. For example, in particularly serious cases (e.g. involving fraud) of operating "Three No's vessels" (Box 1), the monetary fine defined at the national level is no more than twice the price of the vessel, and the offending vessel is also prohibited from leaving port. 127 However, the provincial sanctions vary as follows: (i) Shandong - a fine of 1.2-2 times the price of the vessel; (ii) Zhejiang – confiscation of the vessel (no fine); (iii) Fujian - a fine of 2 times the price of the vessel. Differences were also observed with respect

to fines for crew-related offences. For example, recruiting crew members who have not obtained the necessary documentation attracts a fine of up to 50,000 yuan (approx. US\$ 7,800) in Shandong province, compared to 1,000 yuan (approx. US\$ 150) in Zhejiang province and 10,000 yuan (approx. US\$ 1,500) in Fujian province. At the national level, this offence is punishable with a 1,000-yuan penalty (approx. US\$ 150), with rectification of the situation to be carried out within a specified time limit. 128

Examining the penalties imposed by these three provinces confirmed that the provincial governments do indeed apply and, in some cases, disclose administrative penalties on IUU fishing incidents following MARA's notices. Interestingly, most of the fines identified were applied on the vessel captains rather than on the companies, despite the corporate sanctioning provisions set out in provincial legislation. In all cases, the legal basis for the imposition of the fines was the "Measures for the Management of Fishery Crew of PRC". 129 The measures imposed a direct responsibility on captains for all aspects of fishery production, including ensuring that fishing vessels operate in accordance with the law and abide by resource conservation laws and regulations. 130 Violation of these obligations is punishable with a fine of up to 20,000 yuan (approx. US\$ 3,000), with further non-monetary penalties applicable in the event of serious infringements (e.g. temporary detention of the captain and revocation of the captain's crew certificate).131 This provision has been invoked for multiple types of fisheries infringement (e.g., transshipment without authorisation,132 entering other country's EEZ without approval,133 or carrying prohibited goods134). The reason for the limited fines imposed on DWF companies by the provincial governments is unclear, although in a number of cases MARA has recommended cancellation of fuel subsidies and other sanctions at company level, including cancellation of DWF qualifications and suspension of offshore fishing projects (**Appendix I**). It is possible that the "dependency model" (Box 4), whereby individual vessel owners act independently of their "parent" DWF company, may mitigate against the imposition of sanctions at corporate level but not against individual captains. This is an area warranting further investigation, to ensure sanctions are imposed on the financial beneficiaries of IUU fishing and are effective in deterring such activities.

Box 4 - "Dependency model (挂靠)" - vessels owned by individuals



Fishing vessels anchored in Montevideo, Uruguay.

The Chinese government no longer issues approvals for individual persons to participate in the offshore fishery. Currently, the only legal route for an entity to participate in offshore fishing is on a company basis. Reports, however, suggest that it is still common for individual vessel owners to join a Chinese offshore fishing company by paying a fixed annual "dependency fee" (挂靠费), enabling the vessels to make use of fishing quota obtained by/allocated to DWF companies approved by MARA. According to one news report, as many as 85% of the DWF vessels registered in China's major squid fishing harbour, Zhoushan are thought to operate under such arrangements. Meanwhile, the ownership, investment, production, and operation of the vessel, including recruitment of crew, sales of fishery products and mortgage financing, etc., are all decided by the individual vessel owners. The company does not intervene or have the right to involve itself in the commercial decisions of independently operated fishing vessels. Some companies, such as Zhoushan Putuo Deep Sea Fishery and the Zhoushan Yinghai Ocean Fisheries, have recognised the issues associated with this system following the difficulties they experienced in managing IUU fishing incidents conducted by vessels under their company names, and thus have been seeking a shareholding reform. This vessel ownership loophole remains one of the key gaps in the revised DWF Regulations.

4.3.2 Non-monetary penalties

As a general rule, provincial governments do not have jurisdiction to suspend the DWF qualification of DWF companies – this responsibility lies with MARA¹³⁸ (**Figure 1**). MARA receives reports from external sources about IUU fishing infringements involving Chinese vessels. If the circumstances of the violation are serious or the company has been involved in several IUU fishing infringements in recent years, MARA can decide to suspend or cancel the company's DWF qualification.¹³⁹

As far as we are aware, to date, only Fujian province and the city of Qingdao have promulgated a mechanism to allow the provincial or prefectural authority to suspend the offshore fishing projects of a DWF company

or to inform MARA to suspend/cancel the DWF qualification. 140 These sanctions are considered when the company fails to comply with provincial or prefectural rules and particularly when violations are considered foreign affairs-related incidents. 141

The non-monetary penalties imposed by provincial governments generally follow the recommendation of the Fisheries Law of PRC. Depending on the severity of the violation, the authority can confiscate the catches and illegal income associated with the violation, confiscate gear and vessels, and revoke the operator's fishing licence. The infringements which may result in the application of non-monetary penalties include: fishing without obtaining a fishing licence, ¹⁴² breaching the conditions of the licence, ¹⁴³ failure of the captain to

perform the appropriate duties,¹⁴⁴ continuing to operate fishing vessels reported as scrapped,¹⁴⁵ engaging in vessel documentation fraud,¹⁴⁶ and using Three No's vessels or vessels with stolen identities,¹⁴⁷ among others.

MARA has also requested that each province develop their own blacklist system for DWF practitioners. 148 Shandong province has recently updated their blacklist scheme,149 which allows both the IUU fishing vessel and the person responsible (key management personnel/ project leader, the captain, or both, depending on the offence) to be blacklisted for a period of time. 150 During this period, the respective person or vessel is not permitted to participate in fishing projects or any fishery-related activities or to receive subsidies. It is also prohibited for the IUU fishing vessel to be replaced or to operate in the waters of another country's jurisdiction. The applications for the offshore fishing projects by its affiliated company will not be processed by the provincial government, its fuel subsidies will be fully withdrawn for that year and the vessel will be prohibited from participating in any activity related to public funding or resources.

To the best of our knowledge, the blacklists implemented by the provincial governments have not yet been published or made available to the public. The inclusion of non-monetary sanctions for IUU fishing violations in the Chinese legislation is a positive step forward. Sanctions such as the suspension or cancellation of company qualifications and the confiscation of fishing vessels engaged in IUU fishing can have a significant impact on a company's profit and operations, as well as serve as an effective deterrent, as required under international law.151 However, an analysis of cases published by MARA and the provincial authorities to date indicates that these sanctions have been applied in only a limited number of cases (see **Section 4.3.5**). It is unclear as to how the Chinese government judges the severity of an infringement, and whether suspension and cancellation of DWF qualifications, in addition to other penalties, is warranted. This is an issue that would benefit from further elaboration and guidance in the legislation.

4.3.3 Deduction of subsidies

In addition to administrative penalties, the provincial governments are mandated to withdraw or reduce subsidies for DWF companies in cases of IUU fishing. To date, this has been one of the major sanctioning methods used to discourage these practices ¹⁵² (**Appendix I**). For instance, in Shandong province, a vessel's fuel subsidy will be withdrawn if the fishing vessel uses electricity, poison, dynamite or other prohibited practices; violently resists inspection by law enforcement; registers and uses a falsified vessel name to operate illegally; or enters the waters under the jurisdiction of another country

without authorisation, causing serious repercussions.¹⁵³ Despite the change of name, the calculation and the aim of the fuel subsidy programme over the last decade (see **Section 2.2.1** and **Box 2**), MARA still refers to "deduction of fuel subsidies (扣除油补)" when applying this sanctioning measure in the IUU fishing notices published between 2018 and 2020.

4.3.4 Warnings for suspected or minor IUU fishing offences

In the case of suspected or less serious IUU fishing offences, a warning may be issued by MARA to the operator of the vessel concerned, although the legal basis is not clearly set out in the DWF Regulations. MARA has been observed to issue warnings to DWF companies and/or vessels involved in foreign affairsrelated IUU fishing incidents where no concrete evidence of infringement could be found. Examples include suspicions of illegal fishing by six Chinese fishing vessels sailing under the required speed along the coast of Peru and a Chinese vessel entering French Polynesian waters with a rope hanging from the deck.¹⁵⁴ It is currently unclear as to how "warnings" issued by MARA are considered in the determination of future sanctions for IUU fishing offences. This should be clarified in any revision to the fisheries law framework.

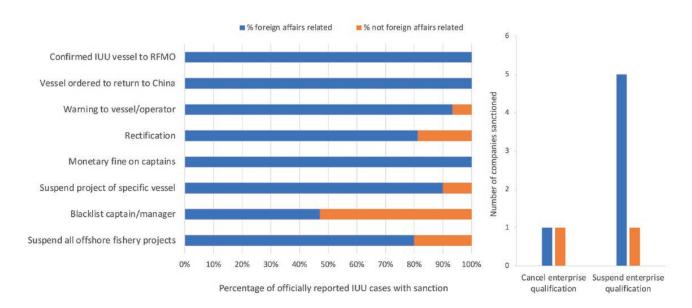
4.3.5 Analysis of officially published cases to date

- 148 cases of suspected or confirmed IUU fishing incidents were published by MARA between 2018 and 2020
- 89% were vessels belonging to a company with a DWF qualification
- 72% were operating projects approved by the MARA and 23% of vessels were operating without MARA's approval

A total 148 cases of suspected or confirmed IUU fishing incidents were published in MARA's notices from 2018 to 2020 (see Appendix I). 89% of these incidents were conducted by vessels belonging to companies with DWF qualifications and 72% were operating projects approved by MARA. 23% of vessels were operating without MARA's approval (the majority being Three No's vessels), while the status of 5% of vessels, in terms of approvals to operate overseas, is unknown. 70% of the incidents were reported by a coastal state, a third country, or an international organisation ("foreign affairs-related"), while the remaining cases were tipped off by Chinese citizens or cases related to production safety accidents reported by the companies themselves. None of the cases were initiated based on routine monitoring by MARA, COFA or the provincial/prefectural governments. Based on details of published cases, the investigation of IUU fishing offences may take up to one and a half years from the filing date to MARA providing recommendations on the penalty.

MARA has emphasised that a DWF company will face serious consequences if it were to conduct IUU fishing and were reported by other countries' governments or international organisations.155 Figure 3 shows the comparison of percentage of foreign affairs related incidents vs. non-foreign affairs related incidents categorised by the sanctions imposed by MARA. Cases resulting in direct cancellation of DWF qualification were related to fraud that was tipped off by Chinese citizens (e.g., companies applied for fuel subsidies with fraudulent documents). If the infringement was foreign affairs-related, the most severe types of penalties are usually suspension of company qualification and rectification, suspension of fishing projects, and monetary fines. Captains and managers of a DWF company can be blacklisted whether the case is foreign affairs-related or not.

Figure 3. Percentage of foreign affairs related IUU fishing incidents vs. non-foreign affairs related incidents categorised by the sanctions imposed by MARA





The DWF Regulations require MARA to consider the seriousness of the offence and extent of impact in determining whether to suspend or cancel a company's qualification as a DWF company¹⁵⁶ although this sanction is rarely applied in practice. The suspension or cancellation of DWF qualifications was imposed to 8 companies between 2018 and 2020, corresponding to 15.4% of the total 52 companies involved in IUU fishing

infringements. Based on an analysis of the list of IUU fishing notices published by MARA and subsidies issued to DWF companies, provided a company continues to possess a DWF qualification, they are able to receive several benefits. This includes subsidies for vessel loan interest and shipping catches back to China, regardless of whether the company's vessels have been involved in IUU fishing.

Box 5 - Subsidy loopholes?



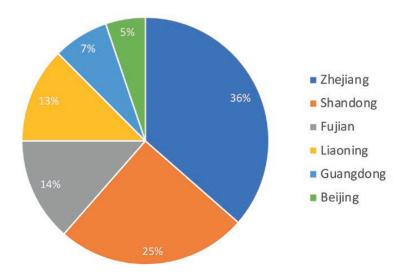
In some cases, vessels that had been warned or sanctioned for fisheries-related infringements were still able to receive subsidies from the Chinese government. For instance, Run Da 607 and Hua Ying 819 received warnings from MARA in 2019 for breaching the innocent passage rule in the Peruvian EEZ, ¹⁵⁷ but still received subsidies for shipping fish back to China in the amount of 43,558 yuan (approx. US\$ 7,000) and 19,689 yuan (approx. US\$ 3,000), respectively, without deduction of fuel subsidies in that year. In some particularly notable cases, the alleged fishing vessels, Fu Yuan Yu 7865 and 7866, supplied shark fins to Fu Yuan Yu Leng 999 near the Galapagos Islands in 2017¹⁵⁸ and received subsidies for vessel replacement just a few months after the seizure. ¹⁵⁹ The company Fuzhou Dongxinlong Ocean Fishing Co., whose qualification was cancelled by MARA on the 1st August 2019 due to multiple IUU fishing infringements in preceding years, ¹⁶⁰ still received rewards for shipping fish back to China later in August ¹⁶¹ (in the amount of 1.6 million yuan, approx. US\$ 250,000). Prior to this, the company had at least received 1.2 million yuan (approx. US\$ 178,000) of loan interest from the government between 2015 and 2017. ¹⁶² This may be indicative of the need for improved communication between MARA and the provincial/ prefectural governments in terms of the application of sanctions and consistent application of rules.

Moreover, several company fleets received subsidies for transferring to new fishing grounds and were later reported by the coastal state or NGOs for their IUU fishing activities. For instance, Fu Yuan Yu 831 was approved for a 100,000-yuan (approx. US\$ 14,800) subsidy for transferring to a new fishing ground (Timor-Leste) in November 2017. The vessel was later seized by the Indonesian authority in December for flag hopping and carrying protected tiger sharks. In another example, 15 Fu Yuan Yu vessels numbered from 9607 to 9621, were intercepted by the Timor-Leste police and Sea Shepherd who found thousands of sharks onboard, including protected species. In fact, this fleet received MARA's fishing projects approval earlier that year with an approved subsidy (a sum of 3.4 million yuan, approx. US\$ 500,000) for transferring their fishing ground to Timor-Leste. These incidents underlined that a stringent protocol for evaluating fishing projects and subsidy application needs to be in place.

In the 2018-2020 dataset, full withdrawal of fuel subsidies (62 cases, 42% of the total) and blacklisting of the captains or managers (21 cases, 14% of the total) were identified as the sanctions most frequently imposed for

IUU fishing. There were only 10 cases (6.8% of the total) where MARA suspended or cancelled the fishing projects of individual vessels, and 42 cases (28%) in which no sanction was imposed.

Figure 4. Official MARA published IUU fishing cases categorised by provincial vessel registry



In terms of provinces, 35% of the cases were from companies registered in Zhejiang, 24% in Shandong, 13% in Fujian, 12% in Liaoning, 7% in Guangdong, and 5% in Beijing. This distribution pattern among provinces is similar to the trend presented after we compiled IUU fishing records of MARA with other sources (e.g., RFMOs, media and NGO reports) – 32% in Zhejiang, 23% in Shandong, 22% in Fujian, 16% in Liaoning, 4% in

Guangdong and 3% in Beijing. 166 However, the increased percentage of Fujian and Liaoning in the compiled data underlines that the IUU fishing activities from these two provinces tend to be under-reported via official channels. Indeed, 26% and 30% of the IUU fishing cases from vessels registered in Fujian and Liaoning, respectively, were reported by NGOs, while only 9% of the cases were reported by NGOs for either Zhejiang or Shandong vessels.



5 Labour recruitment and management

Fishing vessels can be seen as an extension of Chinese territory – Chinese law applies to vessels carrying Chinese nationality, and the personnel working on Chinese vessels should be treated as working in China. The main provisions governing the management of crew on board Chinese DWF vessels are set out in the DWF Regulations and the "Measures for the Management of the Fishery Crew of PRC", which are applicable to the management of fishery crews working on fishing vessels with Chinese nationality.¹⁶⁷

5.1 Eligibility

As a general rule, a DWF company may not employ a person who has not obtained a valid fishery crew certificate. 168 The DWF Regulations also provide that before its crew members exit the territory of PRC, the DWF company shall arrange training and education on work safety, among others. 169 Foreign crew members are prohibited from serving as captains or radio operators

on board Chinese fishing vessels.¹⁷⁰ A company wishing to employ a foreigner as captain must first seek approval from the fishery administrative authorities.¹⁷¹ All Chinese citizens working on Chinese vessels need to obtain a crew certificate; in addition, Chinese officers onboard need to undergo training and receive a "Certificate of Competency".¹⁷² Where it is necessary to employ foreign citizens to work on board Chinese fishing vessels, those crew must hold relevant identification documents issued by the government of their home country, obtain an employment permit from the PRC in accordance with the law and obtain an "Ordinary Crew Certificate" in accordance with the Measures for Crew Management.¹⁷³

The Measures for Crew Management provide for a 30% cap on the number of foreign crew members that can be legally employed onboard vessels with Chinese nationality. However, according to EJF's interviews with crew employed onboard Chinese vessels, the proportion of foreign crew members is often much higher, in the range of 57-61%. ¹⁷⁴ The current Chinese laws regulating the employment of foreigners remain stringent (especially fishers/sailors who are considered "lowskilled workers"), while the demand for foreign crew on Chinese fishing vessels is on the rise. ¹⁷⁵ This combination has likely driven the transnational unregulated recruitment network of foreign workers to the Chinese DWF fleet.



Workers unloading catch, Cote d'Ivoire.

5.2 Transnational unregulated recruitment network

The recruitment of fishing vessel crew on the Chinese side is often conducted via intermediate staffing agencies (or labour dispatching agencies/manning agencies). Some of these agencies have very bad predatory reputations (\mathbb{H} $\uparrow \uparrow$), exploiting not only foreign workers but also Chinese workers, especially those from inland provinces.

The labour dispatching agencies are the actual employers of the workers by law. These agencies employ staff in their name, before "dispatching" workers to the respective fishing company. They oversee all human resource-related issues of the crew, including training and documentation, and payment of crew salaries. The DWF companies or vessel operators, on the other hand, are responsible for work-related management. The labour dispatching system has many weaknesses: it does not provide for social insurance or other benefits for the employed crew, while a crew member can easily be rejected by the vessel operators/companies and sent back to the agency without good reason.

Foreign crew members usually do not have the appropriate visas to work legally in China and hence on Chinese vessels; the percentage of crew having valid Chinese crew certificates is very low. 176 Under the Measures for Crew Management, foreign crew onboard a vessel flagged to China or a Chinese-owned vessel flagged to a third country may be examined for eligibility and compliance with requirements. 177 Since law enforcement authorities may inspect crew certificates at the Chinese port of registry, 178 foreign crew members often board the vessels later, via a third-country port, to evade controls. 179

According to EJF's investigations, most workers from Southeast Asia obtain a South Korean visa to enable them to board Chinese DWF vessels in the Korean port of Busan. Manning agencies in Southeast Asia recruit and send fishers to South Korea, while Korean manning agencies help the fishers to obtain Korean visas. It is unclear how the Chinese manning (labour dispatching) agencies cooperate with their Southeast Asian and South Korean (or other third country) counterparts, with these relationships often hidden/concealed. The fact that embarkation takes place in a third country port increases the vulnerability of migrant fishers, as the involvement of the local agency is only temporary and will be unable to assist with salary issues or other complaints that subsequently arise. Local law enforcement may also be unable to crack down on illegal recruitment due to a lack of jurisdiction over Chinese vessels while visiting the third country port.

The use of third country ports to circumvent crew restrictions has emerged as a key concern during the COVID-19 pandemic – resulting in the Chinese government issuing a contingency plan to allow Southeast Asian crew members working onboard Chinese DWF vessels to use ports in Zhoushan city to change shifts and return to their home countries. Zhoushan is the only Chinese port which allows foreign crew to make an entry to China (see **Section 5.3** below).

5.3 Trial recruitment in Zhoushan city

The Chinese government is trying to resolve these illegal recruitment issues by officially recruiting foreign crew members to China and training them in facilities before relocating them onboard the vessels. A trial began in Zhoushan city in 2013¹⁸¹ and was subsequently renewed in 2017.¹⁸² There are currently around 3,600 foreign crew members from Indonesia, the Philippines, Vietnam, and Myanmar using ports in Zhoushan to launch their journeys and to change shifts to go home.¹⁸³ However, after two iterations, the plan has not yet been promoted in other cities or provinces.¹⁸⁴

To recruit a foreign crew member to a DWF company registered in Zhoushan city, the company must have fishing projects approved by MARA and possess a DWF qualification. The recruitment of an individual fisher is limited to one fishing project on the high seas and should last at least 1.5 years. 185 The company is required to publish a job advertisement in the Chinese market for three weeks; if after this period no suitable crew member can be found, the company can apply to the Zhoushan Ocean and Fishery Bureau to recruit foreign crew. 186 The company then needs to apply for a visa and work permit for the foreign crew member to enter China. Under the trial in Zhoushan, only a health certificate and criminal record certificate are needed from the foreign crew member for the application. 187

However, under the Zhoushan trial, DWF companies are still permitted, in special cases, to recruit foreign crew during the operation of fishing projects on the high seas (i.e., when vessels are not at port in China). 188 The company first needs to provide the Bureau with copies of the project approval and DWF qualification, and the number of foreign crew to be recruited for initial approval. Once recruitment is complete and the crew member begins work, the company is required to provide basic information on the crew member (i.e., international maritime certificate, evidence of two years of work experience on vessels, health certificate, and criminal record certificate). The general absence of oversight of this process may, in practice, provide a loophole which allows for the continued illegal recruitment of foreign workers to DWF vessels operating on the high seas.



5.4 Welfare of the crew

Article 28 of the DWF Regulations sets out the following obligations on DWF companies to protect the rights and safety of workers on board Chinese DWF vessels. These requirements would appear to apply equally to both Chinese and foreign workers on board these vessels.

- To conclude a contract directly with the crew member employed or the entity where the crew member works.
- (II) To purchase relevant insurance for the crew members.
- (III) To pay wages to them on time.
- (IV) To safeguard their legitimate rights and interests.

The Chinese Labour Contract Law applies to both citizens and foreign workers (including those employed legally via the trial in Zhoushan). 189 For foreign workers, the minimum wage, working hours, rest and vacation, labour safety and health, and social insurance must follow the "Regulations on the Administration of Foreigners' Employment in the PRC". 190 However, other issues such as repatriation and early termination of contracts can be agreed upon between the employer and employee.

According to EJF's interviews with Southeast Asian fishers working onboard Chinese vessels, the average wage is about US\$ 300 per month. This is in the range of the minimum wage of major Chinese fishing port cities (US\$ 256-339 per month). 191 The minimum wages are decided by each provincial government taking average local living costs and economic development into account. If there is prominent economic inequality inside the province, the minimum wage is then further defined for each district (but to no more than three levels). Interestingly, Zhoushan, the biggest squid fishing

city, has one of the lowest minimum monthly wages of US \$256.¹⁹² When processing wage disputes for Chinese fishers, the Chinese court will generally base its ruling on the minimum wage of the relevant port city.¹⁹³

In reality, most foreign fishers join the labour force as contract (dispatched) workers. ¹⁹⁴ Most of these contracts are signed between the fishers and the manning agencies where the fishers are recruited. EJF's investigations also found that many manning agencies would charge fishers with "guarantee money" ¹⁹⁵ or a "bond", leaving the fishers in a situation of debt bondage. The fact that the DWF companies do not have contractual relationships with the fishers makes it difficult for fishers to file formal complaints. As contracts are signed with the manning agencies and fishers are not registered as legal foreign workers in China, Chinese law does not apply to foreign fishers in such cases, including the aforementioned rights in Article 28 of the DWF Regulations.

In a more positive step forward, COFA and SHOU have held regular training courses on compliance and conservation knowledge to the captains and program managers of fishing companies to raise the awareness of international and national DWF Regulations. 196 The Chinese government has also initiated a mobile clinic project for the health and welfare of crew members on the DWF fleet. Three vessels with doctors onboard conduct patrols in the East Pacific, Central West Pacific and the Indian Ocean to provide quick help to DWF vessels in need of medical assistance. 197 In the current Plan, MARA also addressed that the management of foreign crew needs to be improved to secure the legal rights of workers. 198 Whether this crucial loophole is to be closed in the future revision of regulations requires further attention.

6 Conclusion

China's DWF industry in terms of vessel number, production, and DWF fishery population has experienced rapid growth over the last three decades. This expansion and the ever-changing methods of IUU fishing offences challenge the effectiveness of the current DWF law. Using a range of different methodologies, we identified IUU fishing offences from several reports demonstrating that numerous IUU fishing infringements committed by Chinese vessels still slip through the net every year. 199 Shen and Huang (2021) concluded that current policies are not effective enough, and that the government's willingness to regulate the industry and to align national regulations with the international conservation and management measures (CMM) should be further enhanced. 200

In this report, we identified gaps in China's DWF regulatory framework which need to be addressed by the authorities. Closing these loopholes will not only make IUU fishing practices less attractive to opportunists, but also demonstrate the determination of the Chinese government in combating IUU fishing activities by its fleet – an important step towards China's goal of becoming a "responsible major fishing state".

China as the flag state is responsible for controlling its fleet. It is necessary to incorporate the binding principles and provisions of international regulations into the domestic regulations and practices. ²⁰¹ MARA acknowledged the pressure from coastal states and RFMOs on regulating IUU fishing activities and recently issued two notices relating to the conservation of marine mammals²⁰² and reduction of bycatch on tuna fishing vessels. ²⁰³ This is a positive step forward, however, these numerous regulation notices need to be given corresponding sanction rules and discretionary benchmarks and eventually incorporated into the national and provincial regulations.

Moreover, there are almost 1,000 foreign-flagged, Chinese-owned vessels operating at-sea. This highlights a further obstacle for enforcement due to the fact that China does not have the authority to inspect foreign-flagged vessels even if the ownership is Chinese, nor do the developing coastal states have the capacity to carry out inspection at-sea. ²⁰⁴ Thus, expanding technical support in capacity-building for fishery enforcement in the coastal states and ensuring all Chinese-owned vessels operate lawfully, will truly realise China's vision of "building a maritime community with shared future" with the coastal states.



Recommendations



Table 2. Identified gaps and recommendations on issues related to the application, implementation and monitoring of fishery projects.

GAPS	RECOMMENDATIONS				
Coverage of law					
Although the current Chinese Fisheries Law applies to all Chinese nationals, it lacks clear penalties for Chinese nationals living abroad who participated in DWF activities, including directly through fishing or investment (beneficial ownership).	Make clear in the Fisheries Law that the Chinese citizens living abroad who wish to participate in DWF are also covered by the related Chinese law and subject to the penalties.				
Controlling the scale of national fleet					
The limit on the size of the Chinese DWF fleet set out in the 13th Five-year plan refers only to the number of vessels but does not include a cap on fishing capacity in terms of engine power or overall GT. This leaves scope for an unregulated increase in fleet capacity and therefore fishing effort, with the possibility to replace older vessels with larger, more powerful vessels over time.	Establish a cap on the capacity of the Chinese DWF fleet, in the form of overall engine power and GT for specified gear types.				
Fishery agreement					
Lack of a general framework to regulate the content of fishing access agreements, whether in terms of sustainability, treatment of crew or fighting IUU fishing through MCS, and law enforcement.	At the very least, the Chinese DWF framework should set out minimum standards for sustainability based on scientific assessments, transparency, MCS systems, and the enforcement and legal procedures regarding any violations to guide the conclusion of bilateral fishing agreements between the Chinese government and coastal states. Equivalent standards should also apply to private agreements between Chinese DWF companies and foreign governments.				
The current quota control depends on the determination of quota within the framework of a bilateral or private fishing agreement or RFMO Convention. However, not all agreements specify fishing quota. In the absence of requirements for fishing agreements to be based on scientific advice or guided by sustainability principles (e.g. the precautionary and ecosystem approach to fisheries), this leaves significant scope for unsustainable fishing operations within the framework of such agreements.	Establish clear guiding principles and requirements for fishing agreements to ensure DWF operations are transparent, legal, and sustainable.				

Absence of requirements for the terms of fishing agreements to be made publicly available. Especially the terms of MoUs and private agreements are highly opaque.

The legal framework should include a requirement for the terms of fishing agreements to be published on the MARA website to allow for external scrutiny and oversight of Chinese DWF operations and ensure compliance of operations with local and international laws (e.g. with regard to sustainable levels of exploitation and consideration of scientific advice).

Transparency

No requirement for eligible vessels to obtain an IMO number prior to registration.

For eligible vessels, IMO numbers should be mandated as a prerequisite for approval of fishing vessels to operate overseas and recorded into the national registry (see Section 3.1).

There is no requirement under Chinese law for the English translation of the vessel's name to be marked on the vessel, hindering identification by national and international authorities when fishing outside of Chinese waters (where vessels are not required by RFMO CMMs to comply with FAO requirements on marking and vessel identification).

- Both IMO numbers and the Chinese UVIs should be included in the published vessel registry (see **Section 2.1.4**) and the published list of approved offshore fishery projects (see **Section 2.1.5**) to improve transparency of vessel information and enhance the efficiency of law enforcement to regulate IUU fishing.
- The DWF Regulations should include "concealment of vessel names or markings" as a violation. 205

No requirement for the vessel owner to supply information on beneficial ownership upon registering a vessel or information on the vessel's compliance history.

- Applicants should be required to provide information on beneficial ownership in order to register their vessel to the Chinese flag.
- Adopt minimum transparency requirements and take transparency measures for DWF activities, including ensuring the comprehensiveness, credibility and accessibility of the information published on DWF authorisations, companies operating overseas, and their areas of operation.
- Cooperate with the relevant foreign governments to clarify Chinese "hidden" ownership in their fishing sectors so as to enforce the relevant legal instruments.

No requirement for the vessel registry to be made available to the public.

- The national vessel registry, through the National Fishing Vessel Dynamic Management System, should be made available and searchable to the public.
- •Ensure the comprehensiveness of the information on the Chinese DWF vessels uploaded in the FAO Global Record of Fishing Vessels, Refrigerated Transport Vessels and Supply Vessels by China, and ensure that such information is kept up to date.

The information published by MARA on DWF enterprise qualifications is limited to the name of the DWF company and certificate number. Details of beneficial ownership are not made available to the public.	For DWF enterprise qualifications, published information should include beneficial ownership.
Absence of a requirement under the DWF Regulations for companies to submit information on the compliance history of vessels or history of reflagging, or for MARA to verify this information as part of the approval of a DWF project.	 Reform the system for reviewing and approving an offshore fishery project to include specific criteria to effectively address abusive reflagging by the Chinese DWF fleet, including: a requirement for operators to provide information on vessel activities conducted under the flags of third countries (data on catches, fishing effort, IUU fishing infringements) and for MARA to conduct detailed verifications of vessel activities conducted under flags with known compliance issues. When considering the approval of specific vessels, MARA should consider the history of flagging and IUU fishing and decline to issue authorisations to vessels that have engaged in abusive reflagging or serious infringements.
Lack of requirement for the registration authority to verify the reflagging or compliance history of the vessel prior to registration.	The competent authority should be required to verify the compliance and reflagging history of the vessel before registering the vessel to the Chinese flag.
Gaps in published information on offshore fishery projects and DWF enterprise qualifications.	The Chinese legislation should mandate the publication of information on approved DWF projects, including the period of projects and vessel details (e.g., name, flag, UVI, gear type, tonnage, allocated fishing opportunities, and beneficial owner).
Inadequate evidentiary requirements as proof of disposal of fishing vessels.	Vessel disposal procedures should be further improved, for instance, through enhancing cooperation with the local inspection authorities in the third country where the vessel is based or where disposal takes place.

- The compliance assessment currently incorporated in the annual review partially relied on self-evaluation by the fishing companies. However, companies may have limited control over individual vessels where vessels are effectively owned and operated by independent parties, impeding their ability to complete an accurate self-evaluation for certain elements of their operations. There also seems to be limited deterrence against companies for providing an inaccurate or incomplete self-evaluation.
- Lack of clarity as regards the roles of the provincial governments and MARA in verifying the information provided by companies as part of the compliance assessment.
- Lack of clarity concerning how the compliance system will be used by MARA to assist in the annual review procedure and whether a company's poor performance can impact the renewal or issuance of a DWF qualification.

MARA should clarify the process of selfverification of results for the compliance assessment, the respective roles of the provincial governments and MARA, and how assessment results are to be used by MARA to assist in the annual review procedure.

Law enforcement

Absence of a clear provision and mechanism within the legislation for vessels to be deregistered in the event of involvement in repeated IUU fishing.

A mechanism should be established to deregister, where appropriate, vessels from the Chinese vessel registry in the event of involvement in IUU fishing.

- Vessel registration requirements and associated sanctions for non-compliance appear to be insufficiently stringent to deter Chinese DWF operators from conducting fishing activities with unregistered vessels.
- The fact that there are still IUU fishing incidents conducted by Three no's vessels or vessels using stolen identities underlines the dysfunctional control of Chinese authority overseeing citizen's fishery activities.
- The reporting system of Chinese vessels going in and out of port should be strengthened by implementing "territorial management" (属地管理) for port management to empower the local port authority to monitor the vessel activities.
- Ratify the Agreement on Port State Measures (PSMA) and in the meantime ensure full implementation of port state control-related CMMs adopted by RFMOs of which China is a member.

Safeguarding standards

For companies whose performance over the previous year passed MARA's review and who received a renewed DWF qualification, existing fishing projects will continue to be confirmed for the following year without the need to re-apply for project approval. Some compulsory criteria for the approval of fishing projects (e.g., feasibility report) are therefore not examined on a regular basis. There is currently no mechanism to require or ensure that the sustainability of an individual fishing agreement/offshore fishery project is evaluated routinely in light of best available scientific data and reported catches/fishing effort.

The annual review should be done at the level of each project/vessel as well as at the level of the DWF enterprise, so that individual projects can be rejected based on inadequate compliance, abuse or sustainability concerns.

The absence of criteria specifically related to abusive reflagging/use of flags of convenience in the process of issuing DWF qualifications and the annual review thereof.

The reflagging history of a company's vessels should be considered when determining whether to issue/renew a qualification, and the company should be required to demonstrate that its vessels have been operating in accordance with all applicable local and international laws and CMMs (e.g. following the rules of local fishing moratoriums or no-take zones; see **Section 4.1** for key offences omitted from the list of Chinese DWF violations).

Improve how the compliance scores are calculated and presented. For instance, one of the possible ways to present the compliance results would be in categories and as percentiles to show which company is underperforming in which category.

Publication of each company's annual compliance result as an overall score by MARA makes it difficult to determine which companies are under-performing in which specific areas.

Monitoring, control and surveillance

There is currently no national requirement for Chinese DWF vessels to install or transmit positions via AIS. As VMS data are not required to be made publicly available, this limits transparency of operations of China's DWF fleet.

A mandatory AIS requirement would significantly improve transparency and coverage of fleet activities.

- According to the regulations on vessel monitoring, the DWF companies are the most directly responsible entities for monitoring the vessel positions. This can potentially be considered as a conflict of interest.
- Despite the fact that several entities are tasked to monitor vessel positions, there is a lack of clarity concerning the respective responsibilities of the different authorities.
- Clarify the responsibilities for vessel monitoring and ensure routine, proactive monitoring of VMS data and follow up on suspected infringements.
- Roll out the scheme of integrated VMS and e-logbooks for other DWF vessel types and fisheries.

Based on IUU fishing notices published by MARA, investigations into IUU fishing are generally prompted by reports from coastal state governments, RFMOs, NGOs or Chinese embassies in coastal states. There appear to be few (if any) cases originating from routine monitoring by the Chinese government, e.g. of VMS/AIS positions which may be indicative of a lack of proactive monitoring of positions of the Chinese DWF fleet or, at the very least, partial reporting.

Responsible Chinese authorities should proactively monitor the positions of the Chinese DWF fleet via VMS or AIS and publish IUU fishing notices.

Table 3. Identified gaps and recommendations on issues related to the sanctioning regime of the IUU fishing offences.

GAPS RECOMMENDATIONS

Definition of IUU fishing infringements

The current definition of IUU fishing is not sufficiently broad to include the conduct of business related to IUU fishing and allow for enforcement action against citizens with financial/beneficial interests in such activities.

Broaden the definition of IUU fishing to enable the effective charge of all typologies of offences, starting from recognising and including IUU fishing-related business activities to be infringements²⁰⁶ in the DWF Regulations.

Coverage of law

The DWF Regulations include only limited provisions to address the involvement of Chinese nationals in IUU fishing where the vessels concerned are flagged to third countries. They do not include requirements for Chinese nationals to notify MARA of legal, beneficial or financial interests in vessels flagged to third countries to assist MARA in identifying such arrangements.

Include provisions in the legislation to assist MARA in identifying Chinese nationals with legal, financial or beneficial interests in vessels operating under third country flags.

Investigation and determination of crime severity

- Investigations do not seem prompted by routine monitoring at national or provincial level.
- There is a lack of criteria or guidance at the national level to assist in determining the severity of an offence and the circumstances in which suspension or cancellation of a company's DWF qualification is warranted. This sanction has been applied in only a limited number of cases to date.
- Establish a clearer protocol and chain of responsibility for the investigation of IUU fishing offences, which should involve the local prefectural fishery law enforcement to increase efficiency.
- Further improve the mechanism through which the competent authorities cooperate (within China and with foreign countries). Ensure the investigations into the infringements are conducted in an unbiased manner, based on available evidence, and that the enforcements are carried out expeditiously. In this context, establish direct channels of cooperation with the fisheries administration of foreign coastal countries where Chinese linked vessels operate so as to be in position to carry out all necessary investigations into future possible IUU fishing.
- Clarify, at the national level, the criteria that should be taken into account by MARA in determining the severity of an offence and the threshold at which suspension or cancellation of a company's DWF qualification (and/or offshore fishery projects) is warranted.
- Continue to update and publish information about fisheries-related offences and sanctions by distant water fishing vessels ensuring comprehensiveness, credibility and accessibility of the information published.

Monetary sanctions

There is no minimum fine promulgated by the central government or in the provincial legislation. This leaves significant discretion to the authorities to determine the level of the fine and is ineffective to serve as a deterrent. The maximum fines set out in the legislation also appear to be inadequate to effectively deter large commercial companies from engaging in IUU fishing.

Include minimum sanctions in the legislation at a level that is adequate to provide an effective deterrence against IUU fishing activities.

With the exception of the deduction of fuel subsidies, monetary penalties are rarely applied to companies but generally only to the captain of the offending vessel. Such penalties therefore fail to reach the beneficiaries of illegal fishing activities and unlikely serve as an effective deterrent. Captains can be easily replaced and illegal operations may continue.

Clarify, at the national level, the criteria that the provincial governments should apply when determining the level of financial penalties, and when these should be imposed on vessel owners, captains or both.

A DWF company may continue to receive certain types of subsidies, in spite of confirmed engagement in IUU fishing and withdrawal of other government funding.

Establish clear guidance on the full or partial withdrawal of subsidies to ensure a consistent approach across different sources of government support and ensure that government support in the form of subsidies, loans and other funds are not available to companies with a history of IUU fishing infringements.

Non-monetary sanctions

It is not clear from the current national legislation that an individual project can be cancelled due to IUU fishing, albeit in practice MARA has cancelled/suspended fishing projects of individual vessels. The new draft Fisheries Law provides a more structured stepwise approach to tackle this issue, recognising the differences in severity of various offences and defining penalties accordingly.²⁰⁷

Establish a feedback loop for the provincial government to report non-compliant companies to MARA and to request their qualification, projects, and subsidies be cancelled. To date, only Fujian province has provided this possibility in their provincial regulations (see **Section 4.3.2**).

It is unclear as to how warnings are considered in the determination of sanctions for future IUU fishing offences.

Clarify, in the legislation, how warnings should be treated in the determination of sanctions for future IUU fishing offences.

Table 4. Identified gaps and recommendations on issues related to labour recruitment and management.

GAPS	RECOMMENDATIONS			
Recruitment procedure				
 The involvement of ubiquitous intermediate manning agencies used by DWF companies to employ foreign workers, resulting in such workers lacking certain key protections under Chinese law, as well as potential mechanisms to file complaints. Chinese law no longer applies to vessels that have reflagged from China to a third country. The DWF Regulations are less clear on this point, although it is likely that responsibility lies with the flag state, in accordance with international law.²⁰⁸ 	 MARA should look to extend the trial initiative at Zhoushan city to other cities and provinces. More stringent supervision checking the foreign fishers' identities and qualifications should be in place. Recruitment of foreign crew after the vessel has left the port or during the operation of fishing projects on the high seas should be prohibited. 			
Protection mechanism				
Absence of a clear provision on labour inspections ²⁰⁹ or grievance mechanisms for labour complaints applying specifically to crew (both local and foreign) working on fishing vessels.	The Chinese government should also look to establish mechanisms for monitoring and reporting of human rights violations of workers on fishing vessels, including the introduction of a Standard Operating Protocol across the fleet that ensures workers are given the facility to report securely and anonymously on abuses, as well as establishing a system for labour inspections on the DWF fleet outside of Chinese ports.			
Absence of a clear provision specifying that crew should not be required to pay to work on vessels (to mitigate against debt bondage) and prohibiting blacklisting of crew.	The creation of a specific offence for operators to use forced or bonded labour and the requirement for mandatory crew lists for DWF vessels.			
Crew welfare				
 Lack of entitlement for fishers to be repatriated at the end of their agreement. Lack of detail concerning requirements for social security protection and, at a minimum, protection in cases of work-related injury or death. Lack of clarity concerning how crew members are paid and providing that they shall have the means to send money home to their families at no cost. 	Ratification and implementation of the ILO Work in Fishing Convention C188. ²¹⁰			

- **Appendix I**. IUU fishing incidents published in MARA's notices from 2018 to 2020.
- Appendix II. Compliance assessment scoring criteria.
- **Appendix III**. Administrative (monetary) penalties imposed on key IUU fishing offenses according to the Shandong, Zhejiang, and Fujian provincial regulations.
- **Appendix IV**. Clauses related to offshore fishery in the current (2013) and newly drafted (2019) version of the Fisheries Law of People's Republic of China.

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