



## Full length article

# A review of migrant labour rights protection in distant water fishing in Taiwan: From laissez-faire to regulation and challenges behind

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## ARTICLE INFO

## Keywords:

Migrant fishing worker  
Distant water fishing (DWF) nations  
Forced labour  
Human trafficking  
Decent work

## ABSTRACT

Taiwan is one of the largest distant water fishing (DWF) nations worldwide. As the domestic population structure of Taiwan has changed, the domestic distant water fishery industrial labour force has gradually been replaced by migrant fishing workers. Due to the occurrence of several events in recent years and increased attention from international and domestic societies, the entire labour management system has improved. This study describes the process of change in the labour market in Taiwan's DWF industry and several major events affecting the revision of the legal system since 2017. In addition, this study examines whether Taiwan's institutional changes can effectively solve various types of forced labour problems by referring to the forced labour indicators established by the International Labour Organization (ILO). This study shows that Taiwan's DWF labour market has gradually improved migrant fishing worker protection following several major events and reforms. These improvements include regulated minimum wage and working conditions on board and decreased law and regulation violations. The survey results provide insightful views regarding the government's response to eradicate forced labour and rights protection for migrant fishing workers in DWF. These experiences provide an important lesson for DWF nations in managing the DWF labour market. When problems related to subsequent migration occur, this paper can be used as a reform direction and management direction suggestion to protect the labour rights of fishery migrant workers.

## 1. Introduction

The Work in Fishing Convention (C188) of the International Labour Organization (ILO) came into effect at the end of 2017. Although Taiwan, the country that owned the largest number of longline vessels among distant water fishing (DWF) nations, did not have the opportunity to be involved in the consulting process, the Taiwan government still gradually adjusted its migrant fishing worker management system according to the abovementioned Convention. The conversion of the management system resulted in changes to the ecology of fisheries and the fishery market. We first describe the current situation of Indonesian fishers, who constitute more than 60% of the workforce on Taiwanese DWF vessels. We further use two events (the death of an Indonesian worker who allegedly died on board the FU TSZ CHIUN vessel and alleged forced labour on board the FUH SHENG NO. 11) to elaborate upon the labour rights protection of Indonesian fishers working on DWF vessels.

In the 1960s, the Taiwan government encouraged the private sector

to develop DWFs [1], which gradually flourished; Taiwan became an important offshore fishing country worldwide. However, DWF migrant workers are hardworking and hold a high-risk and low social ranking job in Taiwan. Subsequently, Taiwan's economy began to flourish, and Taiwanese indigenous people and migrant workers from mainland China and Southeast Asian countries, such as the Philippines and Indonesia, joined the DWF labour force [2]. As migrant fishing workers replaced the primary labour force that existed since the 1980s, cross-national recruitment administration has become the greatest challenge faced by Taiwan's authority.

DWF entered a steady state in the 1990s; the average annual production over the last ten years was approximately 699 thousand tons, valued at US\$1.3 billion (Fig. 1). In this group, the production scale of distant water tuna fisheries and squid jigging ranked between the 1st and 3rd largest worldwide [3]. Taiwan officially claimed to own approximately 1100 distant water-fishing vessels, and its fishing activities cover most oceans worldwide, including the high seas and the Exclusive Economic Zone (EEZ) of some coastal countries. Many leading

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<https://doi.org/10.1016/j.marpol.2021.104805>

Received 25 September 2020; Received in revised form 15 September 2021; Accepted 20 September 2021

Available online 29 September 2021

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crews (captains, chief mates, and chief engineers) within Taiwan's DWF are still indigenous Taiwanese. However, basic-level distant water fishery workers are mostly migrant workers.

As countries worldwide continue to invest in DWFs, the exploitation of distant water fishery resources has reached a level high. To ensure sustainability, regional fishery organizations have strengthened management via a quota system. The applied management measures include quota restrictions for several fish species, leading to a decrease in vessel owners' income. Since 1 January 2010, the European Union implemented the 'catch certificate scheme', which focused on the traceability of fishery products and inspected and regulated countries that could not effectively combat 'illegal, unreported, and unregulated fishing', aiming to prevent products from illegal fishing vessels or vessels from uncooperative countries from entering the EU market [4]. On 1 October 2015, the European Commission determined that Taiwan's fishery industry exhibited these behaviours in violation of the relevant regulations of the United Nations (International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing, IPOA-IUU). A 'yellow card' warning was issued to the Taiwan DWF, which was not lifted until 27 June 2019. To solve the yellow card crisis, the Taiwan government addressed the 'legal framework', 'monitoring, control and supervision', 'traceability of aquatic products', and 'international cooperation' of DWF. Due to these changes in management systems, it became necessary for fishing companies to invest in modern equipment and increase the workforce of fishing operations. In addition to the new regulations requiring the installation of an electronic catch log, work, such as unloading fish, requires more work force input to declare, therefore increasing many operating costs. Furthermore, overfishing and climate change exacerbate changes in fishery resources; international oil price fluctuations and growth trends also cause a substantial decrease in the profits of fishery operations [5]. In addition to improving efficiency through high technology to reduce costs, the industry may increase the operating time to increase profits. The need to maximize profit in one trip might result in difficult working conditions on board and long working hours. After receiving international pressure regarding human rights considerations, the Taiwan government passed legislation regulating a minimum monthly payment of US\$450 to migrant fishing workers in DWF and a daily rest period of no less than ten hours. These measures intend to protect distant water migrant fishing workers and ensure better working conditions.

There are already relevant cases of fishery-forced labour worldwide. For example, related management problems have been discovered in the foreign charter vessel sector of New Zealand's fisheries [6,7] and the modern slavery scandal of Thai fisheries [8]. These critical studies analyzed policy and business issues. An Indonesian migrant worker died on a Taiwanese fishing boat in September 2015. Subsequently, three recorded video clips showed the victim's physical changes, and the time of death was broadcast by the victim's compatriots working on the same

vessel, revealing the problems associated with forced labour on the fishing boat and causing concerns worldwide [9]. To stop further abusive behaviours and ensure better protection of workers' rights, the Taiwan government amended the original law (Regulations on Overseas Employment of Foreign Crew Members by Owners of Fishing Vessels) and issued 'Regulations on the Authorization and Management of Overseas Employment of Foreign Crew Members' on 20 January 2017. This regulation is a statute authorized by the "Act for Distant Water Fisheries". On 16 November 2017, when the regulations above were implemented, ILO C188 also took effect (it shall come into force 12 months after the date on which the ratifications of ten members, eight of which are coastal states, were registered with the Director-General). On 17 July 2018, the Taiwanese DWF vessel Fukuoka 11 was listed on the ILO webpage as the 'first fishing vessel detained under the ILO Fishing Convention' [10]. This incident also created the motivation to practice the law again. Studies have demonstrated that when labour force recruitment relied on migrant fishing workers while the fishing industry continued to boom, migrant fishing workers' management progressed beyond the national authority, and bilateral cooperation became the core [11].

There are several main sources of pressure underlying the driving force for promoting the change examining the several abovementioned events. These sources include the strong criticism by scholars and NGOs, follow-up reports from the media, the involvement of the Control Yuan (the highest independent administrative supervision organization in Taiwan that exercises the powers of consent, impeachment, censure and auditing comparable to the United States Government Accountability Office and Australian Commonwealth Ombudsman Office), the implementation of the Executive Yuan (the highest administrative organization in Taiwan), two global reports (Trafficking in Persons Report and Country Reports on Human Rights Practices) published by the United States and the yellow card issued by the European Union. Among these sources, the reports referring to observations [12,13] from NGOs are included to sort and urge government reforms, and more cases have occurred, helping lay the foundation for the government to amend laws.

The proportion of Indonesian fishing workers is outnumbered and is greater than 50% of the total Taiwanese DWF labour force. The two victims of the suspected forced labour incidents in 2015 and 2018 were Indonesians. To limit the research topic to forced labour, this study delimits Indonesia as the main sourcing country and Indonesian fishing workers as the study subjects for an in-depth analysis. These two cases occurred immediately before and after the launch of the new law issued by the Taiwan government and the ILO 188 Convention coming into effect. This study also compares the effectiveness and enforcement of migrant fishing workers' rights protection in DWF and comprehensively discusses the factors and experiences underlying a series of policy changes from laissez-faire to supervision in Taiwan. This paper aims to explore a series of policy changes, experiences and lessons in Taiwan.

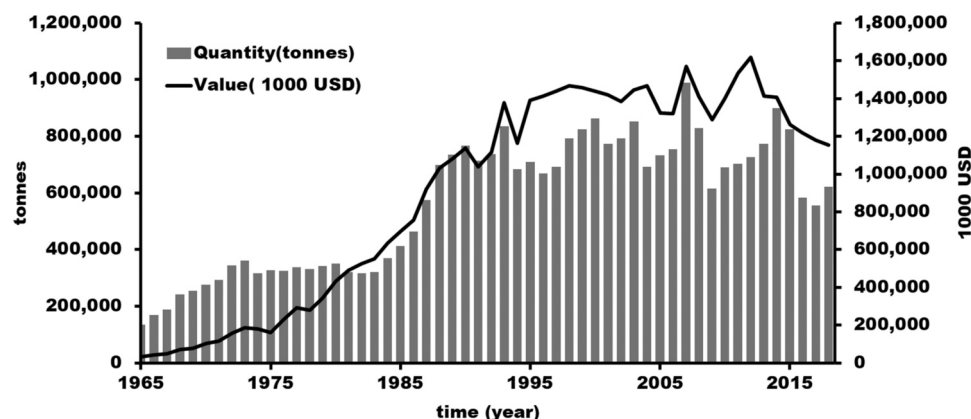


Fig. 1. Quantity and value of Taiwan distant water fisheries between 1965 and 2018.

When problems related to subsequent migration occur, this paper can be used as a reform direction and management direction suggestion to protect the labour rights of fishery migrant workers.

## 2. Methods

This study adopted a desk review, in-depth interviews, a benefits analysis of legal reform, and a review of ILO forced labour indicators. The following research steps were adopted:

### 2.1. Clarification of migrant fishing workers' legal status

We clarified the classification of individual migrant fishing workers in Taiwan, reviewed Taiwan's relevant laws, and identified the types of migrant fishing workers who continue to engage in forced labour. In addition, the official statistics of the Taiwan government helped identify the country that contributes the highest number of migrant fishing workers. The authors developed an understanding of the outline of the recruitment process through interviews with migrant fishermen ( $n = 30$ ), Taiwanese private employment agencies (PrEA) ( $n = 10$ ), and Indonesian local fisherman groups ( $n = 1$ , 15 members). The interviewers were professionally trained by the Fisheries Agency and assisted by trained language interpreters. In the sampling of migrant fishermen, different fisheries (longline, squid fishing, and purse seine) were classified first, and then, random sampling surveys were carried out separately to ensure that samples from different fisheries were considered. We contacted migrant fishermen as follows: once the fishing boat returned to the port (Qianzhen, Donggang, Xiaogang and Nanfanggao in Taiwan), at the port, we spoke with the migrant fishermen, asked for the migrant fishermen's consent, and obtain the interview data. We ensured that each ship had more than one crew member to ensure that the ship owner could not grasp the question of the interviewee. If the homogeneity on the same ship was too similar, it is treated as a sample. The ship owner was asked to leave the scene when conducting the interview.

The authors also searched for job advertisements and Facebook posts to gain an in-depth understanding of all recruitment practices, including the advertisement's content and how migrant fishing workers can take advantage of job opportunities and work on fishing boats.

### 2.2. Historical study of international events and regulatory changes

We analyzed international events and regulatory changes by traditional accident law. The main forces driving the changes in regulations and the impact of interest groups and related groups were determined based on a review of the causes and effects of these incidents. The period of our research was from August 2015 to March 2020. The selected period centres on the occurrence of the FU TSZ CHIUN event and one year after the most recent legal amendment. A historical timetable of several major events occurring during the study period is shown in Table 1.

### 2.3. Benefit analysis of legal reform

This study compiled a list of sanctions for violations of the Act for DWF published on the Fisheries Agency's website (<https://www.fa.gov.tw/cht/PolicyIUU/index.aspx>) from March 2016 to July 2020 to understand law enforcement during different periods of migrant fishing worker rights protection. We calculated the monthly fines for labour violations and nonlabour violations separately and then compiled these figures into a graph to compare the increases or decreases in the ratio. If there were no fines for labour violations, the ratio is equal to zero. If all fines were due to labour violations, the rate is 100%. This study also summarized the monthly fines received by ship owners according to violation items and plotted these fines in a time series chart to understand the changes in law enforcement concerning fishers' issues over time.

To objectively evaluate the changes in the rights protection of migrant fishing workers, we simply refer to the changes in the salary structure. In 2018, we used a free questionnaire to interview fishers regarding the wage structure mediated by PrEAs. We drew two boxplots based on these data and the salary structure of FU TSZ CHIUN fishers in 2015 and compared the difference in the salary structure after the implementation of the new regulations.

This study also compared two different survey results from the Taiwan government and the Environmental Justice Foundation from 2017 to 2018 and 2018 to 2020 to explore temporal changes in the insufficient wages of fishers after the institution of the Act for DWF [14–16]. The survey results are plotted according to the time of the survey.

The survey results are plotted according to the time of the survey.

### 2.4. Review of ILO forced labour indicators

We reviewed the indicators of the forced labour framework established by the ILO's Special Action Programme to Combat Forced Labour (SAP-FL) and discussed whether these legal amendments are effective in responding to the labour force indicators suggested by the ILO [17]. Finally, we determined whether the legal amendments fulfil the indicators of forced labour.

## 3. Employment of Indonesian distant water fishers

### 3.1. Clarification of the legal status of fishing workers in Taiwan

Taiwan's fisheries are mainly divided into the following three types according to the fishing location: coastal, offshore, and distant water fisheries. The management system of DWF is significantly different from the other two, so it is often discussed. Migrant fishing workers in coastal and offshore fisheries are legally employed by the 'Employment Service Act' and its sub laws, regulating a basic wage of US\$800 comparable to national workers, working hours, and leave-related protections. However, migrant fishing workers are obliged to pay a service fee to their recruitment agency of approximately US\$60 per month in the first entrance year, US\$55 in the second year, and US\$50 in the third year and after. In addition, employers have the right to deduct food and accommodation costs of approximately US\$150 per month. Thus, migrant fishing workers legally earn US\$600 after deducting the service fee and food and accommodation costs. By the 'Act for Distant Water Fisheries' and its sub laws, migrant fishing workers hired in distant water fisheries are entitled to a basic pay of US\$450, while the service fee and food and accommodation costs are on the employer's shoulder. Regarding the work hours and resting time, the Act follows the ILO Convention 188. Thus, there is a difference of US\$150 in wages between migrant fishing workers covered by the Employment Service Act and workers covered by the Act for Distant Water Fisheries. From an objective point of view, the working environment and risk in DWF are far higher than those of work on land. The contingent principle of 'overseas employment, operation, and repatriation' is practiced because Taiwanese DWF vessels conduct fishing activities in DWF grounds for a long time and usually employ migrant fishing workers at foreign ports. The number of fishers of different nationalities is shown in Table 2, while Indonesian workers represent the majority. As migrant fishing workers who choose on-land

**Table 1**

Historical timeline of the events in this study.

Date	Event
25 August 2015	FU TSZ CHIUN Event
1 October 2015	EU gives yellow card to Taiwan
16 November 2017	ILO C188 takes effect
17 May 2018	FUH SHENG NO. 11 event
20 March 2019	Latest amendments amended

**Table 2**  
Statistics of the employment of distant water fishers from major origin countries.

Country/Year	2015	2016	2017	2018	2019	2020	2021
<b>Indonesia</b>	9066	9785	10524	13003	113008921	13170	11790
<b>Philippines</b>	4970	4768	4951	5998	6030	6144	5302
<b>Vietnam</b>	1666	1271	1037	1109	948	1113	1250
<b>Other</b>	296	466	1103	283	479	527	465
<b>Total</b>	15998	16290	17615	20392	20465	20954	18807
<b>Statistical date</b>	Year ending 31 December					15 July 2020	28 February 2021

work have to meet more administrative requirements and the waiting period might be uncertain, the quick and convenient fishing work in DWF provides an alternative for potential migrant fishing workers.

### 3.2. Recruitment and onboarding

Most Indonesian DWF workers are from coastal cities in Central Java, such as Tegal. Tegal is an intermediate city on the north coast of Central Java, with approximately 276 thousand people. Central Java is a relatively less developed area. Compared to other regions in Central Java, Tegal citizens enjoy better education, health, housing, and sanitation conditions [18] partially due to the economic benefits brought by returning distant water fishers. Previously, recruiters often published DWF job postings in local newspapers [7]. However, with smartphone popularization among young people in Indonesia [19], most current job postings are listed on Facebook. On Facebook, job postings usually recruit ‘anak buah kapal’ or ‘ABK’. Hired individuals are sent to work on fishing vessels from Taiwan, Hong Kong, China, and South Korea. The job postings also specify the destination of the fishing vessels, e.g., Peru, Uruguay, Russia, Trinidad and Tobago, Cape Town, American Samoa, Fiji, and Australia. The desired age of fishers is generally between 18 and 30 years for workers without prior experience. The upper age limit is often 40 years, even for workers with experience. The salary is also specified in the job posting and is often divided into the following three categories: inexperienced, local fishing experience, and DWF experience. Inexperienced workers are paid the lowest wage, followed by those with local fishing experience, while those with DWF experience are paid the highest. The job postings generally note that wages are in basic terms (i.e., they exclude dividends, completion of contract bonuses, and petty cash). Some job postings also indicate the amount deducted from wages known as the PrEA deposit, which is usually US\$100 per month for eight consecutive months. PrEA deposit can be reduced if workers provide complete documentation. In practice, a PrEA deposit is converted into a contract completion bonus when the contract is completed. Before the law was amended, there was no specific regulation regarding the control of the PrEA deposit. Therefore, clarifying whether money is temporarily detained wages in practice is challenging. Finally, recruiters provide contact information. In the past, Blackberry was popular in Indonesia; therefore, the job postings also contained a Blackberry smartphone PIN. Currently, the contact information includes a phone number and a WhatsApp number.

Generally, DWF workers rely on PrEAs to discuss the positions. The PrEA first reviews the documents prepared by the fishers and signs contracts with the fishers. After signing a contract, the PrEA first translates the fishers’ health check report and good citizen card and submits the translated documents to the Ministry of Justice and the Ministry of Foreign Affairs of Indonesia for verification. Then, the documents are sent to the Taipei Economic and Trade Office (TETO) for verification by the Taiwan government’s office in Indonesia. After obtaining complete TETO verified documents, arrangements are made for the fishers to travel to the base port and board the vessels. Most PrEAs provide insurance to fishers, but such insurance mostly only covers travel from Indonesia until the fisher boards the fishing vessel; the insurance amount is not high (the insurance money for accidental death is approximately US\$3,000). Those who travel abroad to base

ports are considered tourists. Therefore, there is no record in Indonesia of fishers working on Taiwan DWF vessels; these workers are considered letters of guarantee (LG) fishers, implying a fisher with a letter issued by his employer.

### 3.3. Working at sea

Taiwanese flagged DWF vessels generally have a long voyage from the base port to the fishing grounds. For example, a squid boat may sail 40–50 days to the fishing grounds, whereas it may take a longliner or purse seiner anywhere between 10 and 20 days. During this period, except for basic cleaning work or prework preparation (such as organizing fishing gear and packing), fishers do not have much work, and the daily working hours usually do not exceed 8 h. After entering the fishing grounds, the daily working time increases to fulfil the requirement of a nonstop work process. Under normal circumstances, the daily working hours should not exceed 14 h a day. However, if large schools of fish are encountered, the working hours are extended. Fishers who work extended hours should be compensated according to the compensation system to comply with regulations. However, thus far, such regulations have not been established.

Regardless of whether they are at fishing grounds, fishers are responsible for cooking. Depending on the size of the ship, cooking can be a part-time or full-time job. Additional bonuses are provided to fishers who work as part-time cooks. In addition, Taiwanese DWF vessels provide technical bonuses to experienced and skilled fishers. For example, if bait is not appropriately deployed on a longline, the bait might not sink and be eaten by sea birds, decreasing the chance of catching fish. Taiwan’s squid jig vessels have installed automation technology. Therefore, the main work of fishers is packaging, but some senior fishers are still needed to maintain the fishing equipment. These senior fishing workers may be bilingual and can assist the captain or cadre convey the ship’s orders. These senior workers usually receive bonuses. In addition to technical work, fishers on purse seiners may receive bonuses if they find a large school of fish. In practice, it is difficult to determine the length of working hours. Therefore, there are still deviations in the determination of working hours between employers and employees, and many anglers believe that their working hours are too long. However, it is difficult to follow good standards in the working environment. More better practices are still needed in terms of reform.

### 3.4. Other employee benefits

Taiwanese DWF vessel owners should provide accident, medical, and life insurance to fishers on board. The amount of life insurance coverage is generally more than NT\$1 million (approximately US\$33000). If work-related injury or sickness occurs, owners should immediately arrange medical treatment at the nearest facility and are responsible for medical and other expenses. If non-work-related injury or sickness occurs, owners should immediately arrange medical treatment at the nearest place and provide advanced payment for medical and other expenses. In any emergency on board, the captains must inform the government of Taiwan at the earliest opportunity. After a contract expires, owners should pay the travel expenses of fishers to return to their



country of origin. Owners are responsible for providing meals, accommodations, and warm clothing to fishers on board. If fishers can enter fishing ports in Taiwan, some Taiwanese nongovernmental organizations (NGOs) organize winter clothing donations to fishing workers.

#### 4. Critical cases and process of legal reform

##### 4.1. The death of an Indonesian worker on board the FU TSZ CHIUN vessel

The Kaohsiung distant water-fishing vessel FU TSZ CHIUN departed from Donggang on 12 May 2015. The boat owner announced that Supriyanto, a migrant fisher, died at 23:10 on 25 August 2015. After the boat arrived in Donggang on 9 September 2015, the Taiwan government asked maritime police and forensic doctors to examine the corpse. The forensic investigation showed that the deceased most likely had bacteremia due to an infected knee wound and died of septic shock. Therefore, his death was ruled as natural.

The international media and domestic media in Taiwan extensively covered Supriyanto's death [9,20,21]. A review and comparison of video recordings revealed that the Indonesian interpreter in charge of translation at the time did not understand the Central Java language, the dialect spoken by the Indonesian witnesses. The month prior to Supriyanto's death, another fisher recorded videos on his mobile phone. The videos showed that Supriyanto was beaten on board. The videos also showed that Supriyanto started having systematic discomfort as early as 23 July 2015 and that his symptoms soon worsened, rendering Supriyanto unable to speak. The vessel captain did not arrange medical treatment promptly and did not start the counselling process, delaying medical treatment and causing death. This mistreatment recorded on board by a fellow compatriot showed that the suspected abuse led to death, which should have been taken seriously. However, the case was initially closed on the grounds of death of migrant workers due to illness.

##### 4.2. Implementation of new policies

Supriyanto's death provoked serious criticism from local NGOs and international media. In addition to imposing severe penalties on the boat owner, the Taiwan government punished the boat captain. A criminal investigation was opened on 17 December 2016. This incident was an important precipitating factor that pushed the government to reform labour regulations. In addition to reminding the Taiwan government to pay attention to this issue, this incident accelerated the Taiwan government's review of the lack of existing laws. Prior to this, Taiwan was given a yellow card by the European Commission in October 2015, allowing the country to carry out IUU reforms before March 2017, otherwise it will face a red card. Finally, the Taiwan government issued 'Regulations on the Authorization and Management of Overseas Employment of Foreign Crew Members' on 20 January 2017. As shown in Table 3, this regulation improved the work benefits, such as salary, rest time, insurance, and living conditions, of distant water fishers. The following are the main aspects of the regulations:

- (i) The minimum monthly wage of distant water fishers must not be lower than US\$450 and should be paid directly to the fishers, while special deals between employers and workers are allowable.
- (ii) The daily rest time of distant water fishers should not be less than 10 h; the number of days off per month should not be less than four.
- (iii) The ship owner should provide accident, medical, and life insurance to the fishers on board. The amount of life insurance coverage should not be lower than NT\$1 million, which is significantly higher than the previously required amount of NT\$0.5 million.

**Table 3**

Comparison of the first phase amendments by the Taiwan government.

Item	Old regulations	New regulations
Wage	Negotiated by both parties	The monthly wage must not be lower than \$450
Wage payment method	Not regulated	Payments are based on the principle of direct payment to fishers and cannot be withheld, penalized, or deposited.
Insurance	Accident insurance NT\$0.5 million	In addition to accident insurance, medical insurance and life insurance (the amount of coverage must not be lower than NT\$1.0 million) should also be provided.
Age	Minimum age: 16	Minimum age: 18
Working hours	Negotiated by both parties	Minimum daily rest of 10 h
Ship owner obligations	Specified in various contracts and regulations	Such obligations must be clearly regulated and must provide conditions for fishers to appeal.
Recruitment agency management	Companies or individuals can act as recruiters No safety deposit	Only companies can act as recruiters. The amount of NT\$1.5 million or more is required by the number of people who the agent plans to employ as specified in its operation plan.
		Those with negative evaluations can be ordered to close.
Penalty	No penalty regulations for recruiters	Unauthorized recruiters can be fined NT\$4.0–20 million. Recruiters who violate regulations can be fined NT\$1–5 million.
	Ship owners (captains) who violate regulations can have their licenses revoked or can be fined NT\$30,000–150,000	Ship owners (captains) who violate regulations can have their licenses revoked or can be fined NT\$50,000–250,000.

The full text of the 36 articles promulgated on 20 January 2017 by the Taiwan government.

- (iv) Before signing a contract, the recruiting PrEA must pay a deposit of NT\$1.5 million to five million insurance coverage. If recruiting PrEAs fail to fulfil the contractual obligations, the Taiwan government will collect the deposit and compensate the contracted fishing worker.
- (v) Key aspects were developed to evaluate the service quality of PrEAs to focus on management, improve the service quality, and maintain the order of distant water fisheries.
- (vi) The penalties for ship owners and recruiters in violation of the regulations were increased.

Moreover, the Taiwan government agency established an interview system assisted by trained interpreters to strengthen the capacity of interpretation services in distant water fisheries and reduce translation problems in emergencies. Furthermore, the Taiwan government assigned investigators to check the entry status at important ports of other countries, such as South Africa, Thailand, American Samoa, Marshall, and Palau.

##### 4.3. Alleged forced labour on board of FUH SHENG NO. 11

Shortly after the FU TSZ CHIUN event, the launch of legal reform in Taiwan and the ILO C188 Convention going into effect, an incidence on another Taiwanese DW fishing vessel, FUH SHENG NO. 11, was widely reported on international news channels.

FUH SHENG NO. 11 is a distant water (albacore) longliner. The ship entered the South Atlantic international fishing grounds via Montevideo

Harbor in Uruguay on 7 December 2017. On 18 April, FUH SHENG No. 11 was inspected by the South African Bureau of Fisheries and underwent a first-phase investigation by the Taiwan Government Commissioner in Cape Town. Immediately after entering the fishing port, several migrant workers complained to the embassy in the mainland that they were treated improperly on the fishing boat. After negotiation, it was arranged for these migrants to return to Indonesia.

FUH SHENG No. 11 stayed in South Africa from 16 April to 16 May to replenish supplies. The sanitary conditions and hull safety were not in full compliance with C188 due to the vessel's aged usage; therefore, the ship was detained by the South African Maritime Safety Authority (SAMSA) on 17 May. Upon receiving the news of the detention, the Taiwan government immediately asked the fishery commissioner in the Cape Town office to investigate the status of the migrant fishing workers on board. However, the Cape Town office does not have an interpreter for assistance; thus, the survey was conducted using an Indonesian questionnaire. The preliminary investigation confirmed that no migrant workers on the ship had legal employment certificates and that the owner had wage and benefits violations. After improving the equipment (including hull conditions) between 17 May and 26 June, SAMSA agreed to remove the detention on 27 June, and the ship sailed from Cape Town on the same day.

On 17 July, the ILO released news stating that FUH SHENG No. 11 was the first vessel detained by South Africa due to violating C188, raising international concern regarding migrant fishing workers working on Taiwan DWF boats. The Taiwan government immediately requested FUH SHENG No. 11 to return to Taiwan and monitored the entire voyage through the Fishery Monitoring Centre (FMC). A thorough investigation of the benefits, occupational safety and health, labour conditions, and living conditions of the workers on board was carried out immediately after the vessel docked in the Kaohsiung Xiaogang fishing port on 13 September.

Based on the investigation results, the inspector interviewed the owner, captain, and recruiter on 21 September. In addition, information was provided by two fishers who had already returned to Indonesia who were interviewed with the aid of NGOs (separately with this study). Based on the abovementioned investigation findings, the Taiwan government confirmed that FUH SHENG No. 11 committed several offences, such as the payment of insufficient wages to fishing workers, a labour contract violation (early termination), and short daily rest periods. Some fishers also reported that the captain and non-Indonesian cadres physically abused fishers. Therefore, the Taiwan government fined the ship owner NT\$250,000, suspended the owner's fishing license for five months, and fined the private recruitment agency NT\$2 million.

#### 4.4. Latest legal amendments

After these events, the Taiwan government invited NGOs, distant water fishery groups (representatives of the fishery industry), and experts and scholars to discuss amendments jointly. Although Taiwan was not allowed to sign ILO C188 because Taiwan has not been a UN member since 1971, the Convention was used as an important legal instrument in the meeting to amend related regulations. The amendments included increasing the effectiveness of labour contracts, perfecting the insurance system and strengthening the management of PrEAs (details shown in Table 4). The direction of these amendments shows that the Taiwan government included digital evidence as a part of the law enforcement process. Another important regulation involves a compulsory oral statement regarding the terms of the contract that is obliged to be filmed to ensure the awareness of migrant fishing workers of the terms of the labour contract (Table 4). In addition, the Taiwan government tightened the eligibility requirements for recruiters and restricted people with a specific crime history from working as recruiters. These new regulations were further amended on 20 March 2019.

**Table 4**

Key aspects of the second phase amendments by the Taiwan government.

Goal of the amendment	Key points
Increase contract effectiveness	It is a requirement to inform the crew of contractual obligations. Each distant water fisher should be given a copy of the contract. The entire contract signing process must be recorded. The recorded videos must be kept for three years. The crew may request early termination of the labour contract and return to their countries of origin.
Perfecting insurance coverage	If the insurance is not carried out by regulations and if the insurance coverage is insufficient or the defendant cannot obtain sufficient claims, the loss or damages shall be borne by the ship owner. The beneficiary of the insurance premium should be the distant water fisher. The beneficiary of life insurance should first be the spouse and then, in the following order, children, parents, siblings, and grandparents.
Strengthening the management of recruiting PrEAs	If the person in charge or the legal representative of the agent committed any violation as described in the Human Trafficking Prevention Act and was convicted by the judiciary, the competent shall deny the application to the agent. The agency must not collect service fees from the crew.

Some regulations were amended on 20 March 2019 by the Taiwan government.

#### 4.5. Consequences of migrant fishing worker rights protection and policy reform

In the first few months after passing the Act for Distant Water Fisheries in January 2017, the proportion of penalties for fishing owners for violating labour-related regulations was relatively low, and the main penalty centred on IUU fishing (Fig. 2). The percentage of fines significantly increased in 2018, and nearly all fines focused on rights violations.

In early 2019, during the second regulatory adjustment period, the fine rate was slightly lower. However, beginning in April, the fine rate again centred on rights violations. This finding shows that law enforcement peaked during this period. Except for June, all fines from April to October were penalties related to vessel owners' migration employment violations. This result shows the Taiwan government's determination regarding law enforcement. Beginning in 2020, the proportion of fines for fisher violations fell below 30%.

Fig. 3 shows that during the early period of implementing the Act for Distant Water Fisheries, the number of fines was relatively low, and the cause for punishment was mainly due to applications for employment. However, since 2018, the number of fines has significantly increased, and the types of violations also increased, including salaries below the minimum wage, contract issues, insufficient documentation, and engagement in nonfishery work. In 2019, the number of unlicensed intermediaries increased as a fineable offence, and the percentage of fines for delayed fisher hiring was also reduced. By 2020, the proportion of fines for a salary below the minimum wage significantly increased. This finding shows that after the Taiwan government adjusted its regulations and personnel training during this period, its ability to detect pay violations significantly increased. Specifically, a survey of payment is more challenging than a due or failed completion of the employment process.

As shown in Fig. 4, the FU TSZ CHIUN incident occurred before the Act for Distant Water Fisheries came into effect, and its salary distribution was approximately US\$300 to US\$400. Additionally, the maximum value and Q3 (third quartile) value were US\$400, the extreme value (extreme outlier) approached zero, and a salary of more than US\$400 was already a high salary for this type of fishing worker.

After the Act for Distant Water Fisheries came into effect in January

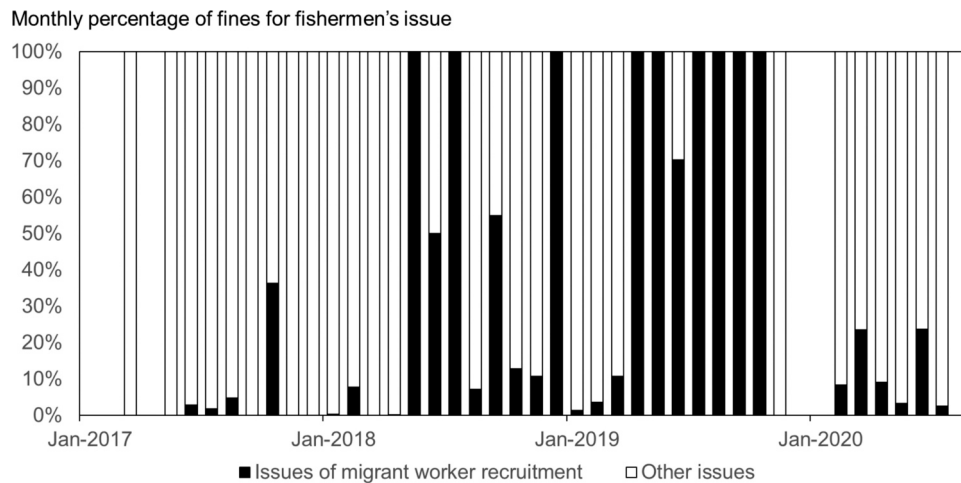


Fig. 2. Percentage of monthly fine values for Taiwan's migrant fishing worker management issues under the Act for Distant Water Fisheries.

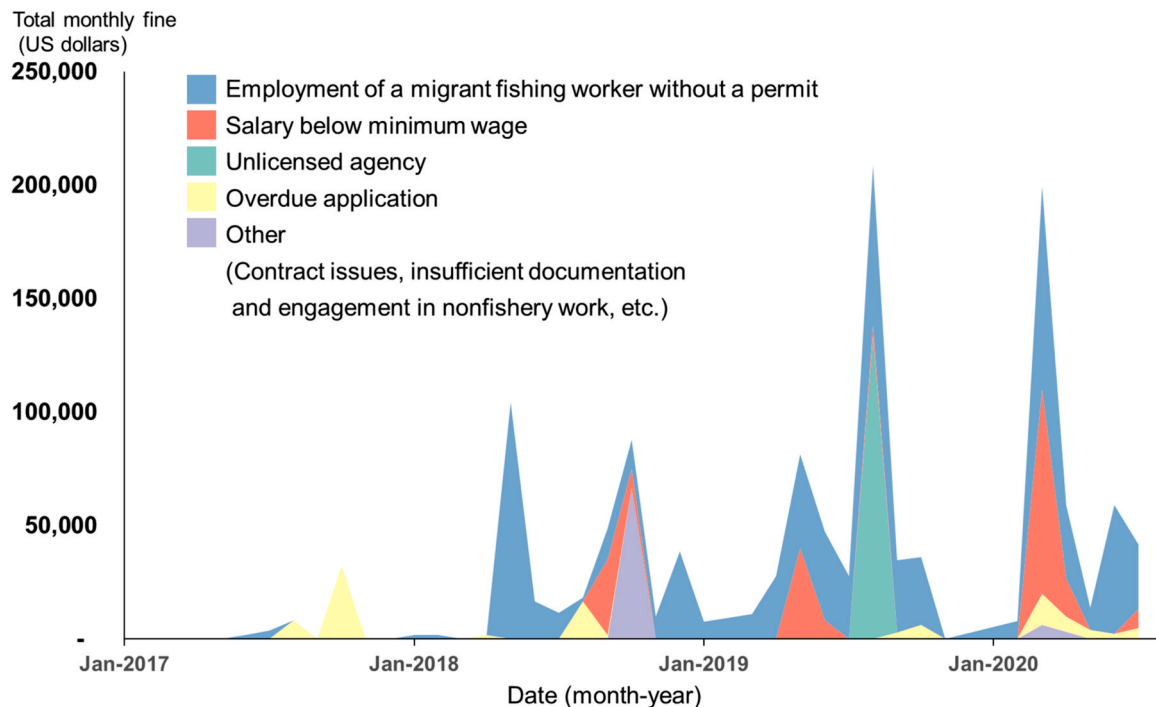


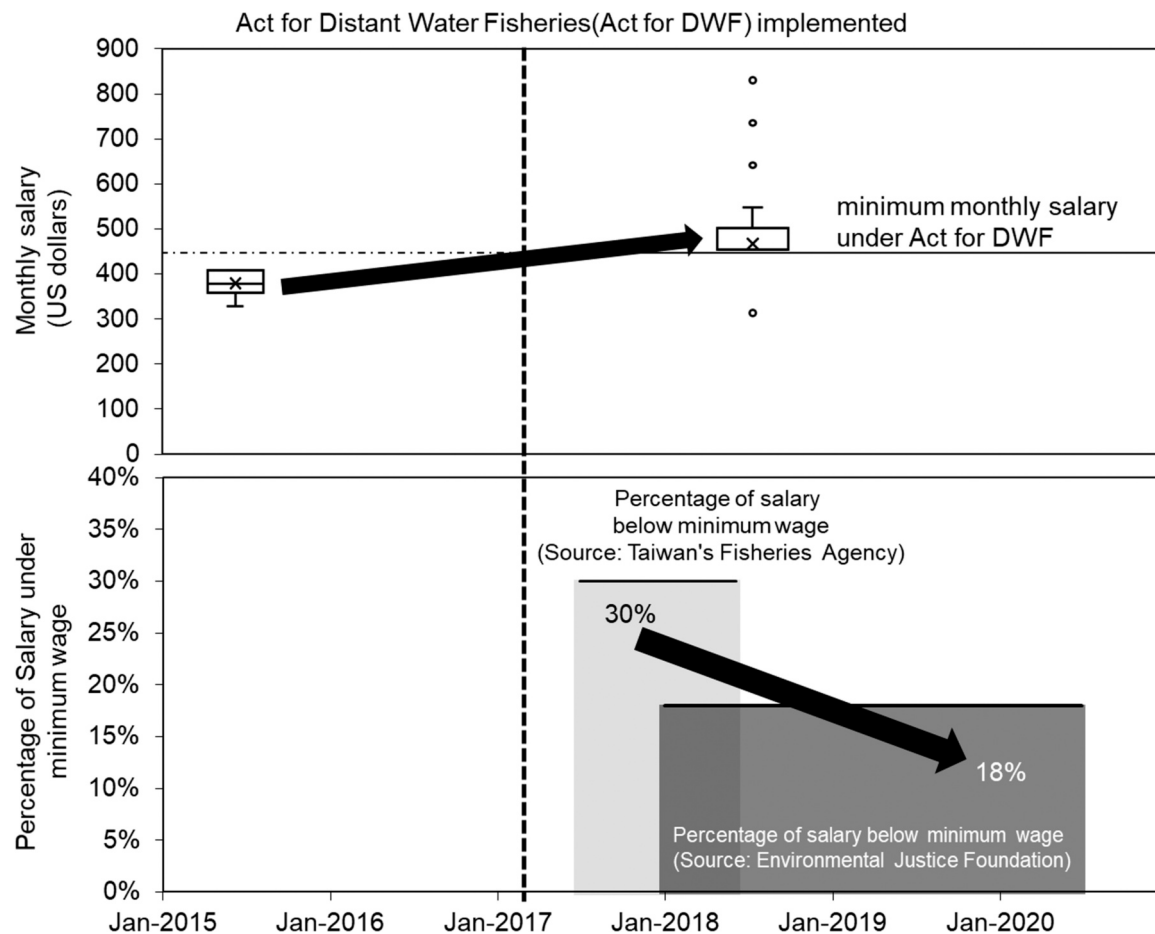
Fig. 3. Total monthly fines comprising different penalty types for Taiwan's migrant fishing worker management issues under the Act for Distant Water Fisheries.

2017 and upward adjustments to fishing workers' monthly pay, there were also some changes in the salary characteristics. This study found that in addition to outliers, the minimum salary and the Q1 (first quartile) and Q2 (second quartile, median) values were all US\$450. This finding shows that in the legal range, except for a few contracts before the new regulation and fishing workers receiving outlier salaries (salaries of approximately US\$300), the salary increased to more than US\$450. Furthermore, this research found that the average salary was higher than US\$450. Additionally, the Q4 (fourth quartile) value was US\$550, and there were sporadic outliers between US\$600 and US\$900. This result shows that the salary that the industry is willing to pay significantly increased from the previous ceiling of US\$400 to US\$550, representing an increase of 37.5%. Additionally, some businesses are willing to pay more than US\$600 in salary. This study also identified two different periods during which fishing workers reported that their wages did not reach the legal minimum wage. The results of this study and statistics from the Taiwan government from mid-2017 to mid-2018

show that approximately 30% of fishers were underpaid. However, the Environmental Justice Foundation statistics from the beginning of 2018 to mid-2020 show that this proportion was reduced to 18%. This finding demonstrates that a series of incidents might have strengthened the government's determination, law amendments, and enforcement processes; the proportion of distant water fisheries complying with laws and regulations increased from 70% to 82%, which helps improve and enhance the overall wage structure.

#### 4.6. Policy reform and improvement in the fight against forced labour

To analyze Taiwan's management of forced labour at different times, we used the 11 indicators developed by the ILO's SAP-FL; for further discussion, please refer to [22]. The indicators are as follows: (1) abuse of vulnerability; (2) deception; (3) restriction of movement; (4) isolation; (5) physical and sexual violence; (6) intimidation and threats; (7) retention of identity documents; (8) withholding of wages; (9) debt



**Fig. 4.** Taiwan's migrant fishing workers' wage distribution before and after the implementation of the Act for Distant Water Fisheries and survey results of the percentage of fishers with a wage below the minimum wage during two different periods.

bondage; (10) abusive working and living conditions; and (11) excessive overtime. We investigated whether Taiwan's regulations covered these 11 indicators at different periods (see Table 5). In Table 5, we examine the different considerations of the Taiwan government, and the past is divided into three periods. The first period was from 28 June 2002–19 January 2017; during this period, the government realized that it was necessary to manage the employment of migrant fishing workers. The second period was from 20 January 2017–19 March 2019; during this period, the port authorities (city government) discovered the importance of forced labour and strengthened its ability to prevent forced labour. The third period (after 20 March 2019) involved the government's second revision of the regulations against forced labour.

An analysis based on this research framework revealed that most of the first period was designed to stipulate how the industry employs migrant fishing workers, with few regulations managing the indicators of forced labour. During the second period, the scope of the law was wide, and more indicators of forced labour practices were observed and approached. During the third period, Taiwan government regulations on combating human trafficking were included in the regulations. If the PrEA could control fishers through detention documents and debt restrictions, it could lose the opportunity to operate the intermediary business (§11). During the third prior period, to require ship owners to take responsibility for escaping fishers, the regulations required owners to seek migrant fishing workers for at least six months. During the search for runaway fishers, the government did not permit owners to hire new fishers. However, such regulations could lead to an increase in the workload of other fishers. Therefore, this regulation was reduced to three months during the third period (§32).

## 5. Discussion

### 5.1. Why was the policy reform act so rapid?

At the beginning of the FU TSZ CHIUN event, Taiwan's labour-related research scholars received relevant information and travelled to Indonesia with NGO members. Information was provided to the media after a full understanding of the entire case was obtained. While the media reports raised the awareness of the country's people, the Control Yuan attempted to contribute to the development of human rights in Taiwan. The Executive Yuan also exerted efforts to adopt solutions to this problem in two Cabinet Level Committee meetings (Anti Trafficking in Persons Coordination Task Force (Anti-TIP Task Force) and Committee for the Promotion of Human Rights). Furthermore, under the Anti-TIP Task Force, the Working Group on the Rights and Benefits of Distant Water Fisherman was established. These task forces and working groups convened numerous meetings and permitted the related responsible department to amend the law to facilitate improvements in the rights and benefits of migrant fishing workers. Furthermore, the responsible authority invited relevant scholars and NGOs to participate in meetings, establishing a dialog platform. When the FUH SHENG No. 11 event occurred, the Taiwan government quickly cooperated with NGOs and obtained precise information to protect fishing workers and punish those who violated the law. The two cases share several features, namely, they caused many people to attach importance to DWF migrant workers' problems, successfully promoted the government to change policies, and enabled the improved management system to effectively enhance the rights of migrant workers. Therefore, these two cases are included in this study for discussion.



**Table 5**

Correspondence between Taiwanese regulatory updates and strengthening the management of forced labour indicators during different periods.

Indicators	Regulations on Overseas Employment of Foreign Crew Members by Owners of Fishing Vessels (28 June 2002–19 January 2017)	Regulations on the Authorization and Management of Overseas Employment of Foreign Crew Members V1 (20 January 2017–19 March 2019)	Regulations on the Authorization and Management of Overseas Employment of Foreign Crew Members V2 (20 March 2019–)
Abuse of vulnerability	Owners are required to submit official fishermen documents (§5)	Regulations clearly stipulate that employers have the obligation to care for migrant fishing workers (§28). Employers must return fishers to their country before applying for dismissal (§29). The system of interviewing fishermen was improved (§33).	
Deception	Labour contract finalization (§4)	Labour contract must be kept for reference (§5) The regulations clearly stipulate that the agency must pay a deposit (§8) and that the agency must have a contract with fishers (§13). The behaviour of agents is limited (§14). The regulations clearly stipulate that employers have the obligation to care for fishermen (§28). Owners shall provide convenient conditions for fishers to petition to the relevant authorities (§6).	Before signing the contract, the owner and the agent must inform the fisher of the contract and record the entire process (§5).
Restriction of movement	Determined authorities of fishers encounter human trafficking problems (§16)	Owners shall respect the need of fishers for religious holidays (§6) There must be an agreement that the crew is free to change employers (§24).	Fishers may ask for early termination of the employment contract and return to their home country (§6). If the person in charge or the legal representative of the agent committed any violation as described in the Human Trafficking Prevention Act and was convicted by the judiciary, the competent shall deny application to the agent (§11).
Isolation Physical and sexual violence	If a fisher is injured, the owner must notify the government of Taiwan and provide emergency treatment (§15). When a fisher recruited by an employment agent is involved in abducting, wounding, or killing a fisher or when a dispute or fight is attributable to that fisher, the fisher's association that endorsed the employment agent shall investigate the incident and submit an investigation report for consideration of the determination of responsibilities and liabilities (§20).	Increase system inspection (§33) Owners must insure the crew and pay medical expenses and transportation expenses in the case of any injury or illness (§6).	The beneficiary of the insurance is the fisher. If the fisher dies, the beneficiary becomes the family (§6).
Intimidation and threats Retention of identity documents		Agreement that the crew is free to change employers (§24) The system of inspection is improved. Owners must cooperate with the inspection and questioning by the inspector, including providing the crew list, travel identity document(s) of the distant water fisher, distant water fisher identification(s), and all related documents (§33).	
Withholding of wages		The agency is required to pay a deposit. If the agent owes the salary of the fisher and escapes, the salary of the crew can be paid by deposit (§8). The agency shall not make an advance deduction of wages as penalty for breaching the contract or as indemnity (§13). The regulations clearly stipulate that owners must save salary documents for more than five years (§28).	
Debt bondage		The agency shall not make an advance deduction of wages as penalty for breaching the contract or as indemnity (§13).	The agency shall not charge distant water fishers any service fee (§13).
Abusive working and living conditions		Owners shall submit fishers' on board care service plan (§6). Fishery owners provide onshore accommodations for fishers during the fishers' stay in the Republic of China, and such owners shall submit an accommodation plan (§27).	The regulations reduce employers' temporary suspension of applications due to the loss of fishers' employment to avoid unreasonable increases in the workload of other fishers (§32).
Excessive overtime.		The regulations clearly stipulate the daily rest hours and weekly rest days (§6).	The regulations reduce employers' temporary suspension of applications due to the loss of fishers' employment to avoid unreasonable increases in the work hours of other fishers (§32).

Although Taiwan has been in the top tier of the Trafficking in Persons Report for the 12th year, they also clearly noted that labour rights protection for DWF workers is not as good as that for on-land workers in Taiwan. Furthermore, human rights protection has been a founding principle by major political parties. The EU yellow card was mainly

intended for IUU problems rather than labour issues. However, the EU Commission organized a bilateral dialogue concerning human rights, and migrant workers suffering from forced labour was one of the topics. To actively eliminate yellow cards and avoid economic sanctions, the Taiwan government is unwilling to make a bad impression regarding the

human rights of fishers. When such bad impressions are constantly exposed in NGO reports [12,13], they place pressure on the government.

### 5.2. Providing decent work to migrant fishing workers

Most migrant fishing workers are from low-income families. When migrant fishing workers work at sea, their families need to have sufficient financial resources. When fishers die at sea, there must be enough insurance compensation to ensure that the families of the deceased have sufficient economic support. In this series of reforms by the Taiwan government, a substantial policy was to increase DWF migrant fishing workers' minimum wage from approximately US\$300 to over US\$450. Most recruiting advertisements set the minimum salary to more than \$450 for inexperienced individuals and offered even higher compensation to those with experience. A few advertisements that did not adhere to the Taiwan government's regulations and listed wages lower than US \$450 were questioned, mocked, and publicly criticized by Indonesian locals. The increased salary ensures that the recruited fishers have enough money to cover their families' living expenses.

### 5.3. How to measure compliance with legal reform

The regulations set by the Taiwan government expressly stipulate that employers should keep evidence of salaries and payments for five years and that documents related to workers' insurance must be attached when applying for employment permission. These two regulations ensure compliance. Therefore, officials can easily verify whether salaries and insurance coverage meet statutory standards.

However, at times, workers' living conditions on board a vessel can be subjective. Therefore, the Taiwan government also set evaluation standards for specific items, such as drinking water, food, accommodations, emergency resettlement spaces, isolation spaces, emergency equipment, and medical equipment. Owners should self-evaluate these items before submitting documents for recruiting workers. When a fishing boat is docked, the Taiwan government conducts random inspections to determine whether the conditions are consistent with the self-evaluation report.

Previously, ship owners and intermediaries withheld a part of the salary to prevent fishers from terminating work contracts in advance or engaging in illegal work. Currently, the law emphasizes that wages cannot be withheld, and illegally withheld wages are subject to heavy penalties. However, some owners still take risks to maintain the ability to manage fishing workers, and some owners hope that the government will adopt specific actions to restrict migrant fishing workers from engaging in illegal work. However, wages are not a relatively easy issue to investigate and address, resulting in better enforcement results. Except for the FUH SHENG No. 11 incident, penalties for violations of working hours are rarely observed. Therefore, the government should create policy measures that effectively guide the industry to comply with regulations and facilitate inspections.

### 5.4. Preventing forced labour

The main indicators of forced labour include deception, restricted freedom (withholding identity documents), exploitation (violence, debt constraint, and withholding salary), and unacceptable working conditions (long working hours) [7]. In Taiwan, fishing workers must sign labour contracts at the time of employment. The latest amendments also require that the contract's content be explained to these fishers before they sign the contract and that the entire process must be recorded transparently. The Taiwan government even produced a video explaining the standard contract rights and obligations, and this video is available in five languages (Chinese, English, Indonesian, Vietnamese, and Filipino). Most fishing workers own smartphones [19] and can sign contracts using an electronic signature on their smartphone [23]. Allowing fishers to receive contracts via smartphones may reduce

hidden contract content.

Long working hours might lead to health and occupational safety issues [24]. However, DWF vessels operate in open seas for long periods, making it difficult to determine and manage working hours [7]. Methods to improve supervision and transparency measures to prevent owners from violating the laws are needed. More policies and regulations need to be developed through emerging monitoring technologies. Many countries have successively adopted management systems to improve the safety of fishing workers, raise wages, and improve working conditions. However, forced labour in fisheries still exists [7]. With booming fisheries, emerging fishery countries have started heavily relying on migrant labour and experience forced labour issues [11]. However, with the processes described here, developing a transparent and fair recruitment system and working conditions remains the core policy reform for the Taiwan government.

## 6. Conclusion

This article analyses the recent legal and policy efforts by the Taiwan government to combat human trafficking, protect the human rights of migrant fishing workers, and prevent forced labour in DWF vessels. These efforts differ from the management of IUU fisheries and may enable substantial economic benefits from catch sales. However, without better management, Taiwan's DWF industry reputation may be seriously damaged.

The Taiwan government issued a new policy in 2017 and further optimized the policy shortly after to attempt to effectively manage and keep pace with international minimum labour standards. These policies demonstrate government regulation with the invisible hand of overseas fisheries [25]. Whether these interventions are effective and harmless will be determined over time. Balancing the pros and cons and promoting sustainable industrial operations are important goals of the new policy. According to Taiwan's current social structure and economic development situation, it is challenging for local young workers to participate in DWF. Recruiting migrant fishing workers to the labour force is a measure that cannot be transformed in a short time. Creating a win-win situation between ship owners and fishers requires a rational dialogue between employers and employees and the guidance of the government and NGOs. Therefore, the government may be able to develop a more appropriate management method and establish a dialogue platform for employers, PrEAs, crews, and NGOs to solve more complex problems (such as the problem of owners arbitrarily repatriating crew members) and some emerging issues in the future. This study also found that the occurrence of two major forced labour events invited more public attention to social justice. The main impact is that many specific issues were noted, which increased the attention of all sectors of society and accelerated the pace of the policy changes, but this force is certainly a warning. How can there be a dynamism of reform without paying the high price of victims caused by forced labour incidents? For the government to contribute to more preventive efforts and effectively respond to civil society alerts, evidence-based policy measures might stop forced labour conduct in advance. There is no shortcut to providing a safe working environment and decent working conditions to migrant fishing workers on board DWF vessels.

### CRedit authorship contribution statement

**Kuo-Wei Yen:** Conceptualization, Software, Validation, Formal analysis, Data curation, Writing – original draft, Visualization. **Li-Chuan Liuhuang:** Conceptualization, Methodology, Investigation, Resources, Writing – review & editing, Supervision, Funding acquisition.

### Acknowledgements

The authors especially thank the migrant fishing workers willing to be interviewed and the Taiwan professional translators. We are very

grateful to those who provided critical and helpful suggestions concerning the early draft of this article. We also thank the two anonymous (unknown) reviewers and the editor for their comments. We also gratefully acknowledge the financial support provided by the Ministry of Science and Technology, Taiwan, ROC. (105–2410-H-194–060-MY2).

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