

# The Unsettled Problem of Illegal Fishing in the Yellow Sea over the Last Two Decades: What Has Happened?

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## Abstract

The problem of illegal Chinese fishing in the Yellow Sea has been a thorny issue between Korea and China over the past two decades since the Korea-China Fishery Agreement entered into force in 2001. After dwindling due to the restrictions put in place during the Covid-19 pandemic, illegal Chinese fishing has reemerged as a hot issue, with illegal fishing operations recovering. The typical *modus operandi* of illegal Chinese fishing in the Yellow Sea can be divided into several categories: 1) illegal fishing off the NLL that takes advantage of the strained military situation between the South and the North; 2) violations of fishing conditions in Korea's EEZ, which include unlicensed fishing, violating prohibited areas, and violating operational conditions; 3) intrusion of Chinese fishing boats into the Korean EEZ to illegally fish; 4) new illegal fishing methods in recent years, such as *bumjangmang*, a kind of stow net, emerged to avoid law enforcement.

**Keywords:** Illegal Chinese fishing; the Yellow Sea; the Korea-China Fishery Agreement; Korea Coast Guard; Law enforcement

## Introduction

The problem of illegal Chinese fishing in the Yellow Sea has been a thorny issue between Korea and China over the past two decades. In the absence of agreed-upon maritime boundaries between the two countries, fishing in the Yellow Sea has been regulated by the Korea-China Fishery Agreement, which entered into force in 2001. As such, illegal Chinese fishing activities in the Yellow Sea are principally violations of the fishery agreement.

The issue of illegal fishing in the Yellow Sea is intertwined with other aspects of international relations, particularly in trade and security, between the two countries. Despite both countries' wide-ranging efforts to regulate fishing and deter Chinese fishermen's illegal fishing in the Yellow Sea, this issue remains unsettled – and risks undermining the two countries' relations.

The number of Chinese fishing boats seized by Korean authorities for being in violation of the fishery agreement – and for violent resistance to law enforcement – has apparently decreased significantly in recent years. However, that does not necessarily mean that the problem has been alleviated. Illegal Chinese fishing still remains unsettled, and fishermen's modus operandi have evolved, becoming more sophisticated, organized and violent in tandem with Korea's reinforced law enforcement [1].

After dwindling due to the restrictions put in place during the Covid-19 pandemic, illegal Chinese fishing has reemerged as a hot issue, with illegal fishing operations recovering. Furthermore, Chinese fishing boats straddling the Northern Limit Line (N-LL), which is a de facto maritime border in the West Sea, remain a potential source of accidental military conflict between the South and the North.

Against this backdrop, this article aims to explore aspects of illegal Chinese fishing in the Yellow Sea in recent years in relation to the China-Korea Fishery Agreement. It examines the factors that keep illegal Chinese fishing unsettled, and even aggravated, in the Yellow Sea. This article also intends to take look at how the modus operandi of illegal Chinese fishing has changed, and how the Korea Coast Guard's enforcement has changed in the wake of the Covid-19 pandemic. It further attempts to explore ways to address the problem of illegal fishing in the Yellow Sea.

## Fishery Resources Management in the Yellow Sea under the Korea-China Fishery Agreement

### The Adoption of the Korea-China Fishery Agreement

After both Korea and China ratified the United Nations Convention on the Law of the Sea (UNCLOS) in 1996, they declared their own exclusive economic zone (EEZ) in 1996 and 1998 respectively, pursuant to the EEZ regime under the UNCLOS. In 1996, Korea and China started negotiations for a EEZ boundary delimitation and a fishery agreement in the Yellow Sea in parallel, which is narrowly semi-enclosed and less than 400 nautical miles in width, and in which there exist the two countries' overlapping claims.

Pending the maritime boundary delimitation, they first agreed to the fishery agreement, as in the 1997 Sino-Japanese Fishery Agreement [2]. Over the following two decades, they have engaged in maritime boundary negotiations but have failed to reach an agreement, mainly due to both countries' application of divergent principles to the maritime boundary delimitation. Namely: As opposed to Korea's preference for the median line principle, China claims to apply the principle of natural prolongation of land territory and equitable solution [3].

In the absence of the maritime boundary delimitation, the fishery agreement has served as a de facto maritime boundary regime, since both countries' EEZs are recognized under the fishery agreement, pending the final maritime boundary delimita-

tion.

There had been no arrangements to regulate fishing between Korea and China in the Yellow Sea until they agreed to adopt a fishery agreement in 2000-in contrast to Korea and Japan, and Japan and China, which had signed fishery agreements in 1965 and 1975, respectively.

In the absence of regulatory fishery arrangements in the Yellow Sea, Chinese fishing boats engaged in fishing off Korea's coastline. They entered Korea's territorial water to fish, which was a violation of the Territorial Sea Act. Between 1992 and 2000, Korean law enforcement authorities sized a total of 300 Chinese fishing boats from Korean territorial waters [2]. During the same period, Korean fishing boats found to be in violation of Chinese territorial waters numbered only 14. By straining relations between Korea and China, illegal Chinese fishing became a source of conflict as well as leading to the depletion of fishery resources, marine pollution, and distress [4].

Before the adoption of the fishery agreement, Korean fishermen's fishing operations in the Yellow Sea were regulated by the so-called 'self-restraint line,' which is a self-imposed no-fish line by the Korean government to deter Korean fishermen from entering the Chinese fishery zone and being seized by Chinese authorities. The self-restraint line, faithfully observed by Korean fishermen, was 30 miles east of the Chinese fishery zones in the East China Sea and the Yellow Sea under the China-Japan Fishery Agreements, signed in 1979 and 1989 [4].

In the absence of agreed-upon maritime boundaries, the Korea-China Fishery Agreement is principally a *modus vivendi* to regulate fishery in the Yellow Sea, pending the final maritime boundary delimitation.

### **Regulatory Regimes under the Fishery Agreement**

The urgency and gravity of regulatory fishery arrangements in the Yellow Sea led Korea and China to adopt a Yellow Sea fishery agreement ahead of agreed-upon maritime boundaries. Since December 1993, they have held 19 official talks, together with negotiations through other diplomatic channels [2].

At the initial stage, China continued to claim that Chinese fishing should be allowed outside Korea's territorial water by establishing a co-fishery zone. After lengthy negotiations, Korea and China eventually concluded the fishery agreement in August 2000. Under the fishery agreement, three regulatory fishery zones were created to facilitate a fishery order, [] which include a Provisional Measures Zone, Transitional Zones, and Free Fishing Pattern Zones.

### **Provisional Measure Zone**

The Provisional Measure Zone (PMZ), created in the overlapping EEZ-claimed areas, is a co-management zone of maritime resources as well as a provisional fishery arrangement pending the final maritime boundary delimitation [3]. The PMZ is polygon-shaped and situated between the parallel of 37°00 N on the northern limit and the parallel of 32°11 N on the southern limit (Figure 1).

Korea and China took account of the geopolitical situation in establishing the PMZ limits to the north and south. Factors include the strained military situation off the Northern Limit Line (NLL) between the two Koreas on the north, and the tri-junctional jurisdiction claims on the south in the East China Sea among China, Japan and Korea [4].

Within the PMZ, Korea and China are required to take co-conservatory and quantitative measures in accordance with the decisions of the Korea-China Joint Fishery Committee [3]. The number of fishing vessels allowed to fish in the PMZ and the amount of allowable catch therein are determined at the joint committee [3]. Pursuant to the principle of flag state control in

the PMZ, both countries' law enforcement is limited to their own nationals and fishing vessels [ 5]. When they spot the nationals and fishing vessels of the other party violating the decisions of the joint committee, they can only warn them, and notify the other party of the facts and circumstances of violations [ 6 ].

### Transitional Zones

The Transitional Zones were created outside the EEZs of Korea and China 20-30 nautical miles wide as buffer zones. Under the fishery agreement, they were incorporated in the two countries' EEZs after a 4-year of joint-management period [ 3 ]. In the Transitional Zones, which are somewhere between the PMZ and the EEZ in terms of fishery resources management, the nationals and fishing vessels of the two countries are allowed to fish under joint surveillance. The Transitional Zones were the result of lengthy negotiations between China and Korea, in which China asserted wider joint fishing zones to accommodate its large domestic fishing fleets, [4] whereas Korea argued for its wider exclusive fishing waters [5].

### Free Fishing Pattern Zones

Under the fishery agreement, two Free Fishing Pattern Zones [ 3 ] were established in part of the areas above the northern limit of 37°00' N and below the southern limit of 32°11' N of PMZ. In these areas, Korea and China agreed to maintain the traditional fishing practices of both countries unless agreed otherwise. Fishermen from both countries can continue to fish in these unregulated areas as they did in the past, and the relevant laws and regulations of one party do not apply to the other party's fishermen and fishing vessels therein [ 4 ].



**Figure 1:** Fishery Zones under the Fishery Agreements between Korea, China and Japan

Status of Illegal Chinese Fishing and Law Enforcement in the Yellow Sea

Law Enforcement over Illegal Chinese Fishing

Illegal Chinese fishing in the Yellow Sea is primarily a violation of the 2000 Korea-China Fishery Agreement, as well as relevant Korean domestic laws and regulations, such as the EEZ Fishery Act, [ 3 ] the Territorial Sea and Contiguous Zone Act, [ 4 ] the Fishery Resources Protection Act, [ 5 ] and the Criminal Act [ 6 ].

Since the fishery agreement entered into force in 2001, Chinese illegal fishing has been so prevalent that references to “illegal fishing” in general are understood to refer to Chinese activities only. This is backed up by statistics on all illegal fishing cases enforced by both countries’ law enforcement authorities over the two decades - all were executed by Chinese fishermen, except for only two occasions where Korean fishing vessels were found to be in violation of Chinese fishery laws.

According to the Korea Coast Guard (KCG), a total of 6,875 Chinese fishing boats [ 3 ] were seized by the KCG between 2002 and 2023 in violation of the Korea-China Fishery Agreement and its relevant domestic laws, including the EEZ Fishery Act [ 4 ] and the Territorial Sea and Contiguous Zone Act [ 5 ].

As illustrated in Figure 2, the number of illegal Chinese fishing boats seized by the KCG on account of illegal fishing in Korean waters has significantly declined since 2016, culminating in 568 vessels in 2015. On average, the number of illegal Chinese fishing boats caught by the KCG between 2005 and 2015, the period which illegal Chinese fishing activities in the Yellow Sea had peaked, was 471 [ 3 ] Between 2016 and 2023, the number dropped significantly, falling to 104 [ 4 ]. However, the decline in recent years does not necessarily indicate that the problem has eased, given the enormous scale of Chinese fishing boats illegally operating in Korean waters (see Table 1), which has been on the rise.

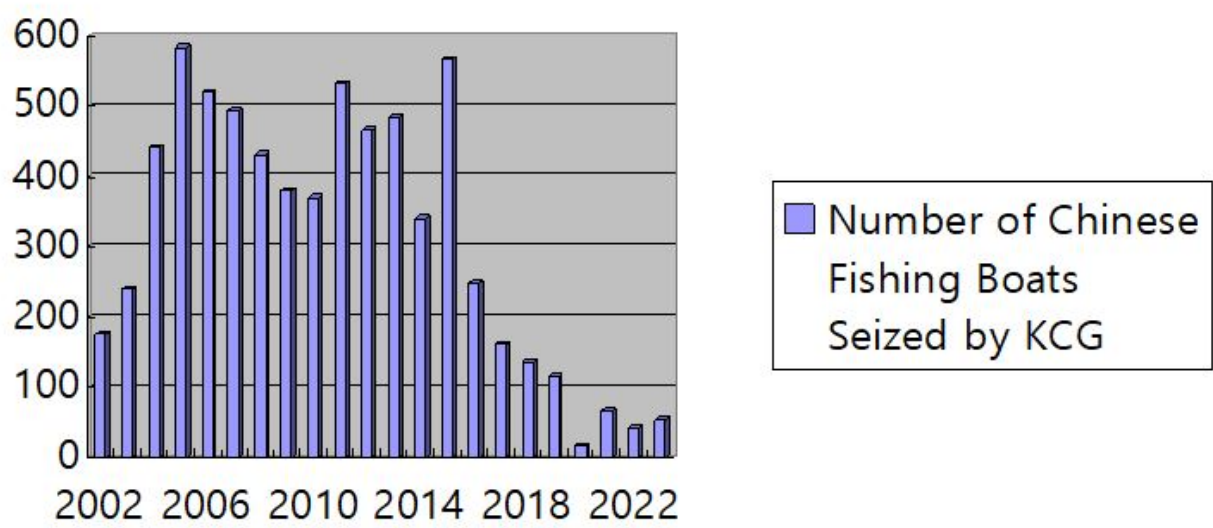


Figure 2: Status of Enforcement of KCG against Illegal Chinese Fishing Boats

Table 1: Status of Chinese Fishing Boats Operating in Korean Waters

Year	Chinese Fishing Boats Illegally Operating in Korean Waters
2015	106,792
2016	73,618
2017	41,239
2018	32,471

2019	53,985
2020	53,368
2021	50,981
2022	55,845
2023	60,984

Source: Korea Coast Guard

### Law Enforcement during the Covid-19 Pandemic

A notable trend during the Covid-19 pandemic between 2019 and 2022 was that dramatically fewer Chinese fishing boats were seized by the KCG in Korean waters. This was not only because Chinese fishermen were restricted from going fishing, but also because the KCG changed its enforcement tactics from seizing to either evicting or blocking Chinese fishing boats that were operating illegally [3].

This was all part of the effort to prevent Covid-19 from spreading through sea-going vessels. As a consequence, the number of illegal Chinese fishing boats seized fell from 115 to only 18-a record low-in 2020.

With average daily Chinese fishing boats illegally operating in Korean waters in October 2020 rapidly increasing to 340, the KCG reengaged in the seizing of illegal Chinese fishing boats while complying with the quarantine guidelines to prevent the spread of the pandemic [4]. As a result, the number of Chinese fishing boats seized by the KCG rose to 66 and 42 in 2021 and 2022, respectively [3]. As Chinese fishing vessels illegally operating in Korean waters were on the rise with the end of the Covid-19 pandemic, the KCG engaged in special enforcement measures in April 2022 and March 2023 [5].

### New Modus Operandi of Illegal Fishing

The typical modus operandi of illegal Chinese fishing in the Yellow Sea can be divided into several categories. First, there is illegal fishing off the NLL that takes advantage of the strained military situation between the South and the North by straddling the NLL. The area off the NLL is designated as the Prohibited Area where foreigners' fishing activities are prohibited under the EEZ Fishery Law [3]. The Prohibited Area off the NLL is designed primarily to protect fishery resources in the EEZ, with security also a factor in this designation [4].

If the KCG chases Chinese boats for illegal fishing off the five West Islands of South Korea, those fishing boats promptly cross back to North Korean waters to avoid KCG law enforcement [3]. Illegal Chinese fishing vessels also take advantage of volatile military circumstances-KCG vessels are not authorized to enter into the waters off the NLL without naval escort, and only a small number of KCG officers on board rubber boats are engaged in enforcement operations. Under these extremely restricted enforcement circumstances, KCG's operations in collaboration with the navy must be carried out with haste for fear of North Korea's coastal artilleries [5].

Second, there are violations of fishing conditions in Korea's EEZ, which include unlicensed fishing, violating prohibited areas, and violating operational conditions, such as the size of fishing nets, fishing methods and gear, and transfer of catch. The allowable Chinese fishing boats permitted to fish in the Korean EEZ has steadily declined, from 1,600 to 1200, as part of measures against illegal fishing [3].

Third, there is the intrusion of Chinese fishing boats into the Korean EEZ to illegally fish. Thousands of Chinese fishing boats operating in the Provisional Measure Zone venture out into the Korean EEZ at night or in bad weather, taking advantage of

KCG's loosened watch at those times.

They even come into the territorial waters off the west coast of Korea, particularly during the fishing season in the fall. Between 2018 and 2022, the KCG seized a total of 28 Chinese fishing boats that were found to be in violation of Korea's territorial waters [ 3].

Fourth, there are some new methods in recent years. The most notable is that Chinese fishermen employ a new catch method, called *bumjangmang*, a kind of stow net, to avoid law enforcement. According to an interview with a KCG officer in charge, the new method of illegal fishing first appeared in 2016 and has become prevalent in the Yellow Sea.

Chinese fishermen set *bumjangmang*-shaped like a long sack, 300-500 meters long and 75 meters wide, with two centimeters of net knots- inside the Korean EEZ next to the PMZ and quickly escape to Chinese waters [ 3 ]. Then they come back to retrieve their fishing nets while KCG vessels are not present, which is a kind of 'hit and run' tactic. Since it takes less than two hours to set fishing nets and recover them, it is hard for KCG vessels to chase them [ 4]. The new Chinese fishing method has recently been blamed as a principal cause of the depletion of offshore fishery resources in Korea [ 5 ].

This appears to be a salient change from the traditional method of Chinese illegal fishing in fleet, where a group of Chinese fishing boats operate together and collectively resist any enforcement attempts.

### **Violent Resistance to Law Enforcement**

A worrisome aspect of illegal Chinese fishing in the Yellow Sea is Chinese fishermen's violent resistance to law enforcement. In a typical modus operandi of resistance, Chinese fishing fleet boats have chained themselves to each other in an attempt not to be seized [ 3]. They have often violently resisted by wielding axes, shovels, and steel pipes, or throwing iron balls to coast guard officers to deter them from boarding [ 5 ].

Once a target vessel comes under control of a KCG vessel, other Chinese fishing boats operating in fleet in the vicinity encircle the target vessel and threaten to use collective force to prevent the target vessel from being seized. Some Chinese fishing vessels are equipped with steel fences and spears around the hull to deter coast guard officers from boarding [ 4].

Under these circumstances, KCG's officers are seriously injured and even killed in the course of law enforcement against violently resisting Chinese fishermen. According to the KCG, a total of 104 officers between 2002 and 2023 were wounded, two of whom were killed in 2008 and 2011 [ 3]. As a consequence, more than 400 Chinese fishermen were imprisoned on charges of the obstruction of justice, use of violence, or murder [ 4]. Additionally, two Chinese fishermen were killed in the course of resistance to law enforcement in 2010 and 2012 [ 5 ].

Notably, the number of coast guard officers wounded during crackdowns of illegal Chinese fishing vessels has also significantly declined in recent years. Between 2019 and 2023, a total of seven KCG officers were injured during crackdowns, which is a sharp decline from the 59 injuries recorded between 2010 and 2014 [ 3].

The decline may indicate mitigation in Chinese fishermen's violent resistance, as they more often comply with KCG's law enforcement. On the other hand, it appears that the decline is more likely related to a change from fishing in fleet formation to the 'hit and run' method of *bumjangmang*, which avoids KCG's direct enforcement.

### **Politicization and Securitization of the Illegal Fishing Issue**

Complex Korean-Chinese relations are a notable factor with regard to law enforcement against illegal Chinese fishing in the Yellow Sea. China is Korea's the largest trade partner, accounting for 24 percent of its overall trade [3]. At the same time, China

is a rival country in terms of security, as it is a traditional ally of North Korea.

Under these circumstances, the Korean government's commitment to law enforcement over illegal Chinese fishing has varied slightly over time, depending on its position toward China. Relations with China were salient for law enforcement during the Moon Jae-in administration (2017-2022), a progressive government under which Korea leaned toward China, deviating from a traditional alliance with the U.S.

Despite public opinions demanding stricter and tighter law enforcement against illegal Chinese fishing, the Moon administration appeared to be less strict toward seizing Chinese fishing boats, compared to the previous administrations. It is viewed that the Moon administration wanted to downplay illegal Chinese fishing as it pursued a foreign policy leaned toward China.

This may be evinced in the statistics of Chinese fishing boats seized for illegal fishing, which sharply dropped during the Moon administration (see Figure 2). Compared with the average number of Chinese fishing boats seized during the previous five years (2012-2016), which was 467, the five years of the Moon administration (2017-2022) show only 99 boats seized on average—a stark contrast. It is an extraordinary drop, even accounting for changed tactics during the Covid-19 pandemic.

The current conservative government, which pursues a stronger security alliance with the U.S., is determined to uphold a steadfast and principled approach to illegal Chinese fishing in the Yellow Sea. During a visit to the KCG special unit tasked with protecting fishery resources off the five West Islands and the NLL, President Yoon Suk-yeol instructed the KCG to sternly respond to the matter [3].

Previously, he had ordered the KCG and the Ministry of Oceans and Fisheries (MOF) to pursue stricter law enforcement against illegal Chinese fishing in the wake of an appeal from a fisherman during a debate, where the fisherman claimed that “Chinese fishing boats intruding off and inshore are depleting fishery resources [3].

President Yoon stressed that the matter of illegal fishing should be addressed with a view to maintaining marine resources security [3]. He said that “even North Korea, in military alliance with China, strictly enforces the law against Chinese fishermen's illegal fishing operations. “However, we, in part, had been not fully committed to law enforcement against illegal Chinese fishing, being conscious of relations with China [4]. “He directed “the KCG and the MOF to be committed to safeguard marine security, with the safety and interests of people first.”

## Illegal Chinese Fishing off the NLL

### Volatile Military Situations off the NLL

A militarily sensitive issue with regard to illegal Chinese fishing in the Yellow Sea is fishing off the Northern Limit Line (NLL), a *de facto* maritime border in the absence of agreed-upon maritime boundaries between the South and the North. Chinese fishing boats take advantage of military tensions between the two countries.

During the blue crab seasons — between March and June, and then again from August to December each year — thousands of Chinese fishing boats cross the NLL from North Korean waters to fish in the South Korean side. Apparently, they are all illegal, given that only 1,200-1,400 Chinese fishing boats licensed from Korea are allowed to fish in the Korean EEZ under the China-Korea Fishery Agreement. More importantly, foreigners are prohibited from fishing in the waters off the NLL under the Korea's EEZ Fisheries Law.

Chinese fishing boats, which straddle the narrow waters adjacent to the NLL, complicate enforcement of security measures and furthermore escalate military tensions in the volatile waters. In particular, the volatile situation around the NLL has become in-

creasingly tense with the South Korean government's withdrawal from the inter-Korean military agreement signed on 19 September 2018 (in short, the 9.19 military agreement) in the aftermath of a series of North Korean provocations in violation of the agreement. Under the military agreement, both sides were prohibited from conducting drills and other military activities in no-hostility zones on land, at sea and in the sky.

As it happened, Chinese fishing boats illegally crossing the NLL from the North Korean side could trigger military conflicts between the South and the North in the course of law enforcement. Under these circumstances, the Korean government's crackdown on Chinese fishing boats in the area is likely to be much harder. Furthermore, Chinese boats fishing off the coasts of the five West Islands threaten the livelihood of the islanders, and they are blamed for a sharp decline in blue crab catches in the area.

### Crackdown on Illegal Fishing off the NLL

Fleets of Chinese fishing boats off the NLL in the blue crab season typically line up along the North Korean side of the NLL during the daytime and abruptly intrude upon the South Korean side at night, crossing the NLL. They employ 'hit and run tactics' to evade KCG's law enforcement, promptly going back to the North Korean side when chased.

In recent years, with the end of the Covid-19 pandemic, Chinese fishing boats caught for illegal operations off the NLL and operating on the Korean side have been steadily on the rise, peaking at 11 and 34,488 boats, respectively, in 2023 (see Table 2). Despite the two countries' efforts to address it, this problem is largely viewed as continuing unchecked.

The KCG established a special unit in 2017, named the Five West Islands Guard Unit, to combat illegal Chinese fishing off the NLL. The unit, composed of two large vessels and aircraft, runs special forces to strengthen enforcement against the Chinese fishing boats that cross the NLL. It also works in collaboration with the navy and the Ministry of Oceans and Fisheries.

Crackdowns on illegal fishing boats within the area are carried out in a very restricted manner because it is a highly sensitive and vulnerable military area. As such, coast guard officers must get permission from the Korean Navy to crack down on Chinese fishing boats in the waters between the No Fish Line and the NLL.

**Table 2:** Numbers of Chinese Fishing Vessels Seized and Operating in the Waters off the NLL

YearNumber	2015	2016	2017	2018	2019	2020	2021	2022	2023
Being Seized	13	30	7	14	11	2	9	7	11
Fishing off NLL	55,855	39,841	15,300	11,858	16,024	18,729	24,948	27,318	34,488

Illegal Chinese fishing off the NLL is also raising another issue: that North Korea has violated the UN Security Council Resolution 2371, which prohibits North Korea from selling or transferring fishing rights. It is believed that Chinese fishermen who acquired rights to fish in the west coast of North Korea engage in illegal fishing off the NLL since blue crabs are very lucrative. From this view, Chinese fishermen are buying North Korean fishing rights principally to fish illegally off the NLL, which is rich in blue crabs.

### V. Contributing Factors to Illegal Fishing in the Yellow Sea

Despite a variety of efforts-from both Korea and China-to combat illegal fishing in the Yellow Sea over the last two decades, the issue remains unsettled and has become a source of conflict between the two countries. Part of the conflict relates to the fact of China's dominance in fishing. China is the world's largest fishing nation in terms of its fleet and the number of employees in the industry. It's also the world's largest marine seafood producer, with production of 67.5 million metric tons in 2020. To better explore the nature of illegal fishing problem in the Yellow Sea, a variety of push and pull factors can be examined.

## The Push Factors

The push factors are primarily concerned with China's internal factors, which motivate Chinese fishermen to venture out and fish illegally in Korean waters.

First, the offshore waters of China are at a risk of fishery resources depletion, mainly due to marine environmental degradation and over-fishing. The waters off the eastern and northern parts of China are degraded by pollutants from rapidly industrializing coastal areas that have seen strong population growth over recent decades. As a consequence, 80 percent of coral reefs, 57 percent of mangroves, and more than 50 percent of coastal wetlands, most of which are crucial spawning, nursing, or feeding grounds for fish, were lost. In addition, Chinese fishermen have concentrated on offshore fishing operations, as they lost 30 to 40 percent of their traditional fishing grounds off the Korean coast as a result of the Korea-China Fisheries Agreement.

Second, sharply growing demands in fish consumption in China are also a major contributing factor. According to the Food and Agriculture Organization (FAO), China's per capita fish consumption has sharply increased from 11.5kg in 1990 to 25.8kg in 2010, and to 40.0kg in 2019. It is forecast that by 2030 China could account for 38 percent of the world's total fish consumption. While being a major fish producer, China has been the largest fish and fishery product importer since 2002, accounting for 19.9 percent of global imports, followed by Japan of 12.5 percent, Thailand of 8.63 percent, and Korea of 6.15 percent in 2020.

The rapid increase in Chinese seafood consumption is driven by a combination of factors, such as rapid income growth and enhanced health consciousness. As China's seafood demands are expected to grow higher, they are likely to help sustain illegal Chinese fishing in the Yellow Sea.

Third, the overcapacity of fishing fleet and fishermen in China is a major contributing factor. China has the largest fishing fleet, which is estimated to be 564,000 vessels-in fact, a decline of about 47 percent since 2013, when it totaled 1,072,000 vessels. The population of Chinese marine fishermen has been declining over the past 20 years as well, from 1.17 million in 1996 to 1 million in 2016. This is the result of the long-term objective of reducing the size of the Chinese fishing sector. Even with the massive scale-down of this capacity, it is estimated that roughly 57 percent of China's marine fish stock is overexploited or collapsed.

## The Pull Factors

The pull factors primarily concern the conditions of waters under Korea's jurisdiction. First, Korean waters have relatively well-conserved fishery resources. Since early the 2000s, the Korean government has employed a variety of policies to address the fishery sector's long-held problems, such as offshore overfishing-which had resulted in a significant depletion of offshore fishery resources and harmed the fishing industry.

The Korean government engaged in policy efforts to address the overcapacity of fishing boats, which was considered a principal cause of the over-exploitation of coastal fishery resources. The Korean government has persistently implemented fishing boat reduction programs over the last two decades. As part of the programs, it implemented a buy-back program for marine fishing boats, buying up 2,457 marine fishing vessels between 1994 and 2002 and implemented another fishing boat reduction program in 2007, with a goal of cutting down 1,280 vessels by 2010.

The number of motorized marine fishing boats in Korea stood at 87,554 in 2005, but was reduced to 63,669 in 2022 as a result of a 20,000-boat reduction in the intervening years. The Korean government continues to cut back fishing boats in an effort to recover fishery resources and increase the profitability of the fishery industry as well. In 2023, the MOF released the 3<sup>rd</sup> Basic Plan for in and Offshore Fisheries Restructuring to cut back 2,024 fishing boats between 2024 and 2028.

Second, Korean fishing grounds are short navigational distances from the Chinese coast, providing easy access to Chinese fishing boats. Because Korean fishing grounds are located closer to the northern and eastern coast of China, Chinese fishermen can easily access and swiftly transport their catches back home. The statistics bear this out: Between 2005 and 2011, 85 percent of seized Chinese fishing vessels were either from Shandong or Liaoning provinces, situated opposite to the Korean Peninsula across the Yellow Sea.

Third, Korean law enforcement cannot keep up with the tremendous scale of illegal Chinese fishing vessels, meaning lawbreakers are at low risk of being caught. Korea's principal agencies to combat illegal fishing in the Yellow Sea include the KCG and the West Sea Fisheries Management Service and the South Sea Fisheries Management Service under the MOF.

Despite this organizational firepower, they lack the assets- especially vessels-to combat the thousands of Chinese fishing boats engaged in illegal fishing in vast waters under their jurisdiction. For the KCG's large vessels, which are greater than 1,000 tons and suitable for carrying out missions in distant waters, the KCG has a total of 36 large vessels as of 2024. Of those, roughly one third of large vessels are in operation on a daily basis in accordance with a three-shift system. The limited deployment of vessels cannot afford to fully enforce illegal fishing in the Chinese fishing season between mid-September and early May. For the Fisheries Management Services, they have 10 large surveillance ships in total, operating three to four ships on a daily basis.

Fourth, violations of Korea's EEZ fishery law come with relatively light penalties. Under the EEZ Fisheries Law, foreigners engaged in illegal fishing in the Korean EEZ can be subject to a maximum fine of up to 300 million won (approximately USD 215,980). When they pay bonds – essentially, fines based on the type of violation incurred-captains and crews in detention are promptly released, and the vessels confiscated are returned. The Korean government had increased the maximum amount of fines from 200 million to 300 million won in 2016 as part of its efforts to address illegal fishing in the Yellow Sea.

## **Efforts to Address Illegal Fishing in the Yellow Sea**

In recent years, Korea and China have made a wide range of efforts to address the problem of illegal Chinese fishing in the Yellow Sea by either collaborative or domestic measures.

### **Collaborative Efforts**

In accordance with the fishery agreement, Korea and China have held the Joint Fishery Committee annually since 2001 to consult: (i) the species allowed to harvest and the quotas of catch in their EEZs; (ii) maintenance of fishery order; (iii) conservation of marine resources and management of the provisional measure zone.

In the 23<sup>rd</sup> talk held in Korea in November 2023, the two sides agreed to: (i) limiting the quotas of vessels allowed in their EEZs to 1,200; (ii) requiring Chinese fishing boats to be equipped with AIS (automatic identification system) when operating in the Korean EEZ; (iii) requiring submission of vessels' international tonnage when applying for a fishing license in each other's EEZ.

In terms of fishing vessel quotas allowable in each other's EEZ, the two countries have steadily cut the number by 50 annually over the last four years, starting from 1,450 vessels. The reduction was largely targeted to the types of Chinese fishing vessels that had engaged in illegal fishing operations in the Korean EEZ.

At their 19<sup>th</sup> talk on illegal fishing prevention efforts, the two sides agreed to the permanent deployment of their coast guard vessels in the Provisional Measure Zone and the deployment of Chinese coast guard ships outside the western limit of the NLL and in the Provisional Measure Zone off the Korean EEZ.

They also agreed to share information collected by Korean authorities about illegal Chinese fishing and to conduct joint patrols in the Provisional Measures Zone. Remarkably, they agreed to resume the transfer of Chinese fishermen seized by Korean authorities on charges of being unlicensed, trespassing on the territorial waters, and violent resistance to law enforcement — and thus, to allow a double punishment back in China, even after paying bonds to Korean authorities. In the 20<sup>th</sup> talk, Korea and China agreed to joint patrol of the two countries' coast guards in the Provisional Measures Zone.

In addition to international efforts, China and Korea have engaged in their own efforts to address the problem of illegal fishing under the fishery agreement. As illustrated above, China engaged in restructuring the fishing industry with various policy instruments, including relocating fishermen to other industries and reducing fishing vessels, to address the overcapacity of its fishing fleet and fishermen. It is designed to fulfill a long-scale policy goal to reduce the size of the Chinese fishing sector.

As part of efforts to preserve and protect marine resources in Chinese-claimed waters under its jurisdiction, the Chinese government has imposed an annual 'hot season moratorium' (or a summer fishing ban) between April and September. In the waters north of 12°N in the South China Sea in 2024, including the Yellow Sea and the East China Sea, a fishing ban is effective from 1 May to 16 September. Chinese authorities, including the China Coast Guard and the Ministry of Public Safety, are determined to strengthen patrols in the waters vulnerable to illegal fishing, particularly sensitive areas related to neighbor countries, such as South Korea, North Korea, and Vietnam.

For its part, Korea has implemented a wide range of policy instruments to combat illegal Chinese fishing in the Yellow Sea over the past two decades, most of which are carried out by the KCG.

The KCG, along with the Fishery Management Service under the Ministry of Oceans and Fisheries, is at the forefront of combating illegal Chinese fishing in the Korean EEZ. Over the decades, the KCG's top priority has been to protect the Korean EEZ from the exploitation of fishery resources by illegal Chinese fishing boats.

In 2017, the KCG revised the Coast Guard Affairs Act to expand allowable conditions for the use of crew-served weapons, and accordingly it came up with a new manual, 'The 2016 Manual for the Use of Weapons,' replacing a set of 2012 guidelines. The new manual sets out the conditions of the use of crew-served weapons, which include; (i) instances of being attacked or in situations where attack is imminent; (ii) where a vessel is being steered with the intention to collide with a KCG vessel to cause injury; (iii) necessity in situations of imminent danger.

The revision and the adoption of a new manual were prompted by the incident in which a Chinese fishing boat attacked and sank a KCG speedboat in 2016. The conditions of the use of crew-served weapons reflect the risky situations that KCG vessels and officers face on as they crack down on illegal Chinese fishing boats.

The Korean government also increased the maximum amount of fines, raising it to 300 million won from 200 million won. It also confiscates illegally caught catches and boats engaged in illegal fishing.

In the fishing seasons in the spring and fall, the KCG engages in special crackdowns tailored to the NLL and the EEZ by operating special forces. During the periods, the KCG builds up the deployment of vessels to illegal Chinese fishing hotspots. The KCG also employs advanced information technologies, such as satellite images, and use drones and unmanned helicopters to closely monitor Chinese fishing boats. The KCG is also closely collaborating with relevant government agencies, including the Fishery Management Services and the navy, by sharing information and conducting joint law enforcement and patrols.

## Conclusion

As discussed above, illegal Chinese fishing in the Yellow Sea has been a thorny issue between Korea and China and remains a challenge to future relations between the two neighbor countries. It has occasionally become a source of diplomatic conflict as well. The illegal Chinese fishing problem in the Korean EEZ, in the absence of agreed-upon maritime boundaries, could disrupt the integrity of the EEZ regime under the UNCLOS.

A steady, recent decline in the number of Chinese illegal fishing vessels might be regarded as an indication that a fishery order has been established. However, the enormous scale of illegal Chinese fishing in the Korean EEZ remains unchanged, and tactics to evade Korean law enforcement have become more sophisticated, as illustrated in the use of the '*bumjangmang*' technique.

Notably, the number of Chinese fishing boats engaged in illegal fishing in the Korean EEZ has been steadily on the rise since the end of the Covid-19 pandemic, during which the KCG focused on eviction and blocking Chinese fishing boats.

The problem of illegal Chinese fishing in the Yellow Sea cannot be addressed only by law enforcement. Crackdown on thousands of illegal Chinese fishing vessels by a small number of coast guard ships is a feeble attempt to treat the symptoms of a disease without addressing its root causes.

As such, I believe that the problem will remain as long as push factors, such as Chinese fish stock depletion and Chinese fishing fleet overcapacity, remain unsettled. In this context, the Chinese government needs to continue to make efforts to address these factors and to impose stricter punishments on those violating the Korean EEZ. It also needs to educate Chinese fishermen about the China-Korea fishery agreement regime.

Together, more cooperative efforts at the governmental and private levels of both countries must be made to conserve and restore fishery resources in the Yellow Sea by the way of joint research and conservation efforts, such as the creation of marine protected areas within the Provisional Measure Zone. Korea and China also need to conclude the EEZ boundary delimitation, which has been negotiated since the declaration of their EEZs in 1996 and 1998 respectively.

At the operational level, law enforcement authorities from the two countries are required to have closer communication and cooperation to prevent operational disputes in the course of law enforcement and to share information on illegal fishing and the movement of fishing fleets, particularly off the NLL, to more effectively combat illegal fishing boats.

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