

**Vida Macikenaite**

Keio University

# **The Implications of China's Fisheries Industry Regulation and Development for the South China Sea Dispute**

## **Introduction**

While several Asian states have been lingering over their South China Sea territorial disputes for decades now, it has become almost conventional wisdom that the main trigger behind is the expected mineral resource deposits in its seabed. However, Sato (2007, p. 123) points out that fish stocks are important along with the natural oil, although this has called the attention of much fewer observers. The South China Sea is one of the most abundant commercial fisheries areas in the world (Wang 2001). But near China's coasts fishing has been limited since 1980s due to overfishing. Together with the Gulf of Tonkin – the major fishing grounds of the 1950s – these areas are said to exist merely in name (Liang and Jiang 2012). According to *Xinhua* (2012) news agency, Hainan reports only around 80 thousand tons of annual catch. At the same time, Sansha area further away in the South China Sea is reported to hold fishery reserves of about 5 million tons, while annual sea catch under 2 million tons would still allow sustainable development (Xinhua 2012a).

This paper aims at examining what impact the depletion of coastal fish stocks and resulting tightening control had on China's territorial disputes in the South China Sea. In late 1970s, besides its naval and commercial shipping force, the PRC was also steadily developing fisheries, and, according to Chiu (1977), since the disputed islands could also be used as fishing bases, China was not expected to soften its territorial

claims. Rau (1986) argued that fish, although to a lesser extent than oil, would be the focal points of present disputes and future conflict. Others have drafted more optimistic scenarios. According to Valencia (2003), China managed to develop a conflict avoidance regime for fisheries in the areas disputed with Japan in the East China Sea. It was made possible through China-Japan Fisheries Agreement, which was renewed in 2000. Wang (2001) discussed whether similar fisheries cooperation framework could resolve the dispute in the South China Sea. At present, the role of fisheries in the territorial disputes is as important as ever, since Chinese government at the end of 2012 announced it was to strengthen the country's marine economy.

In this paper, to examine what implications fisheries industry – its tighter regulation and development – had for the territorial disputes in the South China Sea, first the regulative policy measures are introduced. They are followed by a discussion on their impact on the disputed territories. Further, the paper examines the resulting effect on China's territorial disputes with the Philippines and Vietnam, China's closest neighbors in the disputed sea. The discussion includes the fishing moratorium, incidents involving fishermen, as well as the activities of China's coastal authorities. Finally, the paper concludes by evaluating whether marine environmental degradation in the coastal waters facilitated confrontation or, the opposite, it encouraged the claimant states' efforts for fisheries cooperation in the disputed waters.

The analysis covers the period since early 1980s, when overfishing in coastal waters entered the policy agenda of China, and eventually the state-owned enterprises, collectives, and individuals were allowed to engage in fisheries (State Council 1985). Over the decades, it remained an important issue and the government continued to build a regulatory framework. In February 2013, the Standing Committee of the State Council meeting once again confirmed the policy to promote sustainable development of marine fisheries. The meeting concluded that marine fishing moratorium (*haiyang fuji xiuuyu zhidu*) should be strictly implemented and fishing intensity in coastal waters controlled (State Council 2013a). At the same time, the *Opinion* adopted by the meeting provided that the fisheries in coastal waters should be developed along with the distant water fisheries (State Council 2013b). At the regional level, 2012 witnessed especially active effort to promote fisheries in the South China Sea. In March, the Government of Hainan Province and the State-owned

Assets Supervision and Administration Commission of the State Council signed strategic cooperation framework agreement, based on which several fishing expeditions in the South China Sea were launched soon afterwards. That is to say, in the future, China's marine environment will remain to be managed strictly, while the fisheries industry are set to be developed actively, which would no doubt have implications for China's maritime disputes. The core objective of this paper is to examine these implications until now.

## **Fisheries regulations in China**

In 1979, national aquatic products conference in China raised concerns over the depleted coastal waters and marine environment pollution. In February *Regulations of the Reproduction and Protection of Aquatic Resources* were adopted. After hearing the fisheries work report of the General Bureau of Aquatic Products the same year, the Secretariat of the Communist Party of China (CPC) Central Committee instructed to draft and promulgate fisheries law. Presenting its draft at the 13<sup>th</sup> Plenum of the 6<sup>th</sup> National People's Congress (NPC) Standing Committee on November 13, 1985, Zhu Rong, the Vice-minister of Agriculture, Livestock, and Fisheries, emphasized that water pollution, leading to poisoning of fish, caused worries among fishermen, some of who had even lost their livelihood. According to his report, as the supply was tight and demand increasingly high, "the masses urge[d] for the improvement of such situation" (NPC 1985).

Throughout the 1980s, the legal basis for marine environmental control was established. Marine Environmental Protection Law of 1982, and Water Pollution Prevention and Control Law of 1984 were clear signs that the government was aware of the necessity to control marine environment. Finally, in January 1986, the NPC adopted the Fisheries Law, which went into effect on July 1 the same year. Besides other fisheries-related issues, the law also established institutional framework for marine fisheries management, and provided that marine fishing activities, when large trawls and purse were used, could be conducted only with a license granted upon approval by the department of fishery administration under the State Council. Also, it established quota system for marine fishing licenses. In 1987, China started controlling fishing boat horsepower.

In late 1990s, the Information Office of the State Council summarized these continuous efforts: "China attaches great importance to the protection of marine fisheries resources, and has adopted various measures to conserve such resources so as to guarantee the implementation of a sustainable marine development strategy" (Information Office 1998, part II). *China Ocean Agenda 21* declared a sustainable development strategy for China's marine programs in 1996 (Information Office 1998, part I). In 1999, the hot season moratorium, in force in the East China, Yellow and Bohai seas since 1995, was further extended to include the South China Sea. Since then, in the South China Sea, fishing ban has been announced annually through June to July, and then in 2009 extended from May 16 to August 1.

In 1999, the government initiated a management objective of "zero growth" in coastal marine capture catch, which was further extended to "minus growth" in 2001. These measures marked the beginning of a more comprehensive approach toward environmental management. The government not only applied "output control" (restriction of fishing activities) but also sought to reduce China's fishing power – to employ "input control measures". In 2002, a new program aimed at reducing 220 000 vessels with a total power of 12.7 million kW and the catch of 13.06 million t onto 192 000 vessels with 11.43 million kW and 12 million ton catch by 2010. State Council issued similar guidelines in 2003 (FAO 2012, 52), and by the end of 2004 it had assigned nearly 100 million US dollars to scrap almost 8000 vessels and relocate over 40 thousand fishermen (FAO 2006).

Food and Agriculture Organization of the United Nations (FAO) reports that the marine fishing vessel reduction plan for 2003–2010 achieved reduction by 2008 close to the target. Nonetheless, since then both the number of vessels and total combined power started to increase again (FAO 2012, 11). In short, just before 2010, China already had its maritime environment and fisheries regulations in place, and at the same time excessive fishing capacity. And moving offshore seems to have been the solution.

Extensive fisheries control measures notwithstanding, environmental pollution in China's coastal waters remained an important obstacle for fisheries industry. In 1996, Chinese newspaper *Guangming Daily* reported on water pollution in an article titled "Pollution: the killer of fisheries resources". The same year, *People's Daily*, commemorating 10 years since

the adoption of Fisheries Law in China, reported that decline of fish stock in coastal waters was still an important issue (People's Daily 1996).

From a legal point of view, the most dramatic effect on the disputed territories was China's unilateral summer fishing ban. As China sought to control overfishing in its territorial waters, the moratorium covering areas north of the 12th parallel, was designed to include the Scarborough Shoal (Huangyan Island in Chinese; Panatag Shoal in Tagalog), claimed by both China and the Philippines, and the Paracel Islands (Xisha Islands in Chinese; Hoang Sa Islands in Vietnamese), disputed between China and Vietnam. On the other hand, the most of the Spratly Islands (Nansha Islands in Chinese), partially claimed by all three states as well as their neighbors, were not covered. Its further implications are discussed in part 2.1 below.

Fisheries control was only one side of marine environmental management policy. For China, in the very early beginning of the economic reforms, expanding economic activities, fisheries in this particular case, was nonetheless important. Further, fish provides 4.3 billion people around the world with more than 15 percent of their protein intake (FAO 2012, 5). In late 1970s, for China just recovering after the devastating outcomes of the Great Cultural Revolution food supply was and later remained to be a sensitive issue. And here marine production could not be overlooked. At that time the dilemma – higher production or environment first – could be solved easier. The explanation of the fisheries law in mid-1980s in addition to strict control of the exploitation of the coastal marine environment called for the development of offshore fisheries (NPC 1985). At its very core, it meant going further away from the coastline. And this policy line was maintained later. *The Development of China's Marine Programs* provided that “in accordance with the actual conditions of marine fisheries resources China has actively readjusted the structure of this sector, [...] actively exploited new resources and fishing grounds, so as to make the fishing industry constantly adapt to the changes in the structure of marine resources” (Information Office 1998, part II). As a result, the tighter the regulations are, the more fisheries industry is encouraged to move further into the disputed waters, a development, which no doubt has its implications for China's maritime territorial disputes.

Going offshore, which requires additional investment and upgrading of fishing vessels, was implemented in China through state support as well as private funds. State support for the offshore fisheries development was basically implemented through subsidies, administered at the local

level. The practice to subsidize fisheries was introduced after 2000. For example in Hainan, the fishermen of the province, fishermen cooperatives and marine fishing leading enterprises were entitled to renovate boats above certain tonnage. This was done seeking to promote development of offshore fisheries around the Zhongsha Islands<sup>1</sup> and the Paracel Islands in the South China Sea (The People's Government of Hainan Province 2010). The standard subsidies per ship were 100 thousand Chinese yuan.

Yet, state subsidies for fisheries industry were more allocated to the development of China's distant water fishing. Thus, for the South China Sea fisheries more private initiatives emerged. In 2006, Chinese media published a report on Jinalang – “the richest village in Yangjiang prefecture-level city” Yangxi county in Guangdong province. According to the report, the village's annual income per capita grew from 3,500 yuan in 1997 to 54,800 yuan in 2006. When the government announced it would introduce South China Sea summer fishing moratorium in 1999, many fishermen in coastal areas started selling off their boats. At the same time several villagers in Jinalang invested in more powerful, better equipped boats to be able to fish in deeper waters (Hou 2006).

Hainan Island fishermen took a similar initiative to arrange a fishing fleet of 30 boats to be able to fish at Zhubi Shoal in the Scarborough Shoal (Xinhua 2012a). According to a fishery official in Sanya, “Hainan aims to shift the focus of its fishery industry from near-shore fishing to far offshore fishing. Fishermen are encouraged to ‘build big boats and explore the deep sea.’” According to them, if successful, fisheries in the disputed islands, now administered by a newly-established Sansha prefecture in the Paracel Islands, would be developed further (Xinhua 2012a).

## **Rising tensions in the territorial disputes**

In late 1970s and later, some argued that China would maintain, if not strengthen, its territorial claims in the South China Sea as it intended to develop fisheries there. By introducing hot season fishing moratorium in 1999, China did reinforce its territorial claims. The ban extends to the territories also claimed by Vietnam and the Philippines. It is applicable not only to Chinese but also foreign vessels, and the violators may

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<sup>1</sup> Underwater reefs and shoals in the South China Sea, which lies east of the Paracel Islands, southwest of the Pratas Islands and north of the Spratly Islands.

have their catches and boats confiscated and also get fined up to 50,000 Chinese yuan (Xinhua 2012b). According to the South China Fishery Administration Bureau of the Ministry of Agriculture, “Fishing activity of foreign ships in the banned areas will be seen as a blatant encroachment on China’s fishery resources” (Xinhua 2009).

By its annual fishing moratorium China makes the governments of neighboring countries choose whether to acknowledge the regulations or stand firmly for their sovereignty rights dismissing the ban – a dilemma not overlooked by Chinese media (Zhang 2012). The actual implications of the fishing ban on the territorial disputes depend greatly on their response. And although neither Vietnam, nor the Philippines accepted the regulations unilaterally imposed by China, the two countries responded differently.

Vietnamese government objected the mid-summer fishing ban repeatedly since it was introduced in 1999. In May 2003 the Vietnamese Foreign Ministry declared that Vietnam had undisputed “sovereignty” rights over the Paracel and Spratly islands” (CNN 2011). In 2009, Vietnam’s Ministry of Foreign Affairs called the Chinese Embassy in Hanoi urging China to cease operations in the sea (Xinhua 2009) that is to stop patrolling during the fishing moratorium. Vietnamese Deputy Foreign Minister Ho Xuan Son was quoted telling Chinese Ambassador to Vietnam Sun Guoxiang that increased Chinese patrols had led to more arrests and fines affecting “normal fishing activities by Vietnamese fishermen in Vietnam’s traditional fishing grounds”. In 2012, Foreign Ministry spokesman Luong Thanh Nghi posted a statement on the ministry’s website stating that Vietnam considers China’s decision to impose the fishing ban “invalid” (Associated Press 2012).

Just like Vietnam, the Philippines have never acknowledged the fishing ban as it also applies to the disputed Scarborough Shoal. On the other hand, the Philippine Bureau of Fisheries and Aquatic Resources (BFAR) announced different fishing regulations that apply to the same territory. This fishing moratorium nearly overlaps with the Chinese one: in 2012, the ban lasted from May 16 to July 15 (Department of Agriculture 2012). The BFAR also searched for an alternative solution to alleviate the impact of fishing ban on the local fishermen. In the areas off the coastal provinces it deployed “payao”, a fish-aggregating device that attracts small fish, which later serve as food for the bigger fish such as tuna. The bureau planned to set up a total of 200 “payao” in appropriate municipal waters

and provide the fishermen with a specific location to fish (Department of Agriculture 2012).

In short, while the Vietnamese government rejected China's fishing moratorium, the Philippine government sought to accommodate to it, balancing between Chinese regulations and protection of its sovereignty rights. The chairman of the Vietnam Fisheries Association was quoted saying in 2010 that the "[Vietnamese] fishermen are not dispirited and they will go offshore as normal" (M&C News 2011). The consequences of this position are reflected in the number of incidents, further discussed in part 2.2. In the period from 1999 to 2012, there were four incidents involving Vietnamese fishermen that occurred during the moratorium season in the area where it was enforced. Such incidents involving Philippine fishermen were not observed. While fishing moratorium can raise tensions in territorial disputes, its actual implications depend on the response from the other claimant states.

Further, during the mid-summer fishing ban, all of the incidents involving Chinese fishermen (4 incidents) occurred near Spratly Islands, which were not covered by the ban. In this way, the fishing ban increased tensions between China and its near neighbors as Chinese fishermen were searching for alternative fishing grounds.

## **Fishing incidents as a source of bilateral conflict**

Fishermen activities may be deemed to be a trigger for a conflict. In 2010, the arrest of a Chinese fishing boat captain near the Diaoyu/Senkaku Islands led to a crisis in China-Japan bilateral relations; in July 2012, 36 Chinese fishermen were detained in Russian territorial waters, and also earlier – near Indonesia. Hyer (1995, 45) notes that after some years of calm, the dispute over Diaoyu/Senkaku Islands intensified as Tokyo sought to more aggressively prevent the Chinese fishermen and other forms of entering the territories. In the South China Sea, Stephanie Kleine-Ahlbrandt (2012) argues, "fishing has emerged as a larger potential driver of conflict" rather than the mineral resources: "as overfishing continues to deplete coastal stocks through Southeast Asia, fishermen are venturing out further into disputed waters".

The Chinese fishing boats could seldom be spotted in the South China Sea before 1985 (Chongqing Morning Post 2012), when the local fishermen started searching for better fishing grounds, just like in the late

1920s when shrinking fish stocks in the East China Sea forced local fishermen deeper into the sea (Muscolino 2009). This time more Chinese fishermen had gone to the disputed waters, especially when the harvest was not good enough in other areas (Wong 2010).

According to China's Chief of the South China Sea Fishery Bureau under the Ministry of Agriculture, by the end of 2012, in total there had been around 400 incidents involving Chinese fishermen and the nationals of the neighbor countries around the Spratly Islands (Nanfang Daily 2012). Incomplete statistics from the same department show that from 1989 to 2010, there had been 380 such incidents that involved 11300 Chinese fishermen (Xinmin Evening News 2012). Data released by the Tanmen town government in Hainan Province, Qinghai City, shows that since 2000 there have been 117 similar cases where fishermen of Tanmen town were involved (Xinmin Evening News 2012). While accurate data is hard to obtain, local media reports that such cases in the disputed waters have peaked after 2000 (The Beijing News 2012).

For the purpose of this research, media reports on the incidents involving Chinese and the Philippine or Vietnamese fishermen were analyzed. In total, since 1995, 46 incidents were observed. The findings are summarized in Table 1 (see *Appendix* for a detailed list of the incidents). As the Chinese fishermen moved further away from the coastline, the number of incidents involving civil vessels in the South China Sea increased. Especially large number of them occurred in 2008–2001 between Chinese fishermen and the Philippine coastal authorities. Philippine government actively sought to reduce the tensions. In 2000, Defense Secretary Orlando Mercado instructed the Navy to persuade intruders to leave the Philippine territorial waters and avoid direct confrontation. He later ordered preventive action instead of arresting Chinese fishermen.

Chinese government also attempted to prevent the incidents. In 2008 the State Council issued a directive for the Coast Guard and the fishery authorities to ban Chinese fishing vessels from entering “key sensitive maritime areas” (Cossa and Glosserman 2009).

Departure point of this analysis was the argument that as environment deteriorated in coastal waters and regulations in China tightened, its fishermen moved further offshore into the disputed waters thus increasing tensions between China and its neighbors. Yet, the response of the fishermen is only one side of the argument. The actual enforcement of these regulations is nonetheless important.

**Table 1.** Fishermen-involving incidents in the South China Sea (1995–1999)

	Chinese fishermen – Vietnamese authorities	Chinese fishermen – Philippines authorities	Philippine fishermen – Chinese authorities	Vietnamese fishermen – Chinese authorities
2007–2012	1	2	1	10
2002–2006	1	2	–	–
2000–2001	2	20	–	–
1995–1999	–	6	1	–

Source: compiled by the author.

In this respect the middle of the last decade was a turning point. Among the 46 incidents observed by this study, 12 involved Chinese authorities and 11 of them occurred since 2007. That is to say, most of the earlier incidents occurred as a result of the fishermen's activities as compared to only 3 out of 14 observed Chinese fishermen-involving incidents after 2007. Vietnamese officials reportedly complain that over the last several years, Chinese authorities have arrested hundreds of their fishing boats (The Straits Times 2012). Glaser also notes increased activity of the Chinese authorities. Reportedly, in 2009–2010, they detained an unusually large number of the Vietnamese trawlers (Glazier 2011). According to the data provided by Vietnam, there have been 63 fishing boats with 725 seized by the Chinese authorities since 2005 in the South China Sea (Mydans 2010).

Chinese authorities declare that their task is to protect China's fishing grounds, and its fishermen respectively. The incidents in the sea have reportedly affected the fishermen, and it had a negative impact on China's marine production (Xinmin Evening News 2012). Accordingly, Chief of the South China Sea Fishery Bureau states that they should protect Chinese fishermen at all costs (Nanfang Daily 2012). In March 2009, China dispatched fishery patrol ship of the PLA Navy to the South China Sea, which would patrol in the disputed waters around the Paracel and Spratly Islands (Regional Chronology 2009, 13). In December 2012, Hainan island's provincial legislature passed a new regulation, which allows the border police to board and search vessels deemed to be operating illegally in what China considers Hainan's waters. But the full text of the regulations was not made public and the precise area is not known. Based on the reports, these rules were not imposed by the central government. Instead, local law enforcement agencies were said to have initiated it (Ruwitch and

Martina 2012). Furthermore, *Xinhua* (2013) news agency announced that China would “conduct daily fishery administrative patrols in the South China Sea in 2014 to better safeguard the legitimate interests of domestic fishermen”. Such developments heighten the tension in the disputed waters. On November 29, 2012, Vietnam signed a decree stating that civilian-led patrols, backed by marine police and border force, would be deployed from January 25 of the following year to prevent the break of the fishing laws in Vietnam’s waters by foreign vessels (Reuters 2012).

## **Fisheries cooperation**

The case of Northeast Asia (Valencia and Amae 2003) suggests that cooperation in fisheries could be used as means to manage territorial disputes. Yet, cooperation implies government’s policies must be adjusted to one another (Keohane 1985, 243). Hot season fishing moratorium imposed by China unilaterally for 15 years and objected by its neighbors annually shows that so far political will to cooperate has been limited. However, a number of cooperation initiatives emerged. The most fruitful bilateral efforts between China and Vietnam resulted in fisheries agreement in the Gulf of Tonkin (Beibu Gulf in Chinese). After a few rounds of negotiations, it was signed on 25 December 2000 in addition to the *Agreement on the Delimitation of the Territorial Seas, Exclusive Economic Zones and Continental Shelves in the Beibu Gulf*. During the negotiations, China took the initiative to cooperate in the field of fisheries. “Chinese side stated expressly that boundary delimitation must be linked to a fishery arrangement, and that an agreement for delimitation and an agreement for fishery cooperation must be simultaneously signed and entered into force” (Zou 2005).

Although both agreements were ratified only later in 2004, China took relatively cooperative stance in regards to the development of fisheries. On March 5, 2003 China announced that it would significantly reduce its Hainan Island fishing fleet under this agreement. The province was said to remove 570 fishing boats from service, and transfer 12,800 fishermen to employment in other sectors (Breckon 2013). After that, in accordance with the agreement, the two countries conducted a joint patrol of the shared fishing area in the Gulf of Tonkin.

Fisheries Agreement in the Gulf of Tonkin was a tool of boundary dispute management. However, it could hardly serve as a model for

the disputes in the South China Sea, which has remained an important fishing ground. According to Mo Zhaolan, a researcher at China's Institute of Oceanology, the Gulf of Tonkin, one of the major fishing grounds in the 1950s, now is completely overfished (Liang and Jiang 2012). Therefore, this pattern of cooperation would not necessarily be used by China in other disputed, but more fish-rich, waters.

Similar initiatives were raised by another claimant state. On February 19, 2000, the Philippine Defense Secretary Mercado proposed a treaty to declare the disputed South China Sea a "common fishing ground" for claimant nations, which would be modeled on the Antarctic Treaty (Thayer 2000, 53). The initiative coming from the Defense Secretary rather than agriculture department indicates its role in the management of the territorial dispute. Later, in 2004, Agriculture Ministry-level *Memorandum of Understanding on Fisheries Cooperation* was signed between the Philippines and China. In January 2007, it was followed by the *Memorandum of Understanding on Expanding and Deepening Agriculture and Fisheries Cooperation* and the *Memorandum of Agreement on Cooperation By and Between the Bureau of Fisheries and Aquatic Resources (BFAR) and Guangdong Ocean Fisheries Administration (GDOFA)*. A year later, China and the Philippines agreed to set up a common fishing area in the disputed South China Sea (Reuters 2008).

However, these agreements have never been negotiated into a detailed treaty clearly establishing international regime for fisheries. Further, cooperation in regards to particular disputed areas has not emerged either, while in June 2010 the Philippines and Vietnam signed a memorandum of agreement for cooperation in fishing, conducting search and rescue activities, and carrying out joint aquaculture projects in the Spratly Islands (Ministry of Agriculture 2010).

## Conclusions

In this paper, we explored the link between increasingly strict fisheries regulation in China, and territorial disputes in the South China Sea. We inquired whether tightening control had further complicated the disputes or, in contrary, served as an axis for cooperation. The discussion above demonstrated that since 1980s Chinese government took strict measures to alleviate overfishing in its coastal waters. This forced Chinese fishermen deeper into the disputed waters.

From the analysis in the paper it may be concluded that three variables define what implications China's fisheries regulations have on its territorial disputes in the South China Sea. First, the countries' general bilateral relationship and response to their counterpart's actions are important. For example, China's unilateral hot season fishing moratorium might provoke a conflict depending on the response from the other states. Vietnamese government rejected and repeatedly protested the ban, and negative implications were reflected in the higher number of incidents involving Vietnamese fishermen. At the same time, as the Philippine government introduced its own nearly overlapping fishing ban, the incidents were absent during the non-fishing season. In this way, the Philippines and China established unofficial conflict avoidance regime, which was never possible with Vietnam. Further, when the Philippine government ruled out that the coastal security authorities should take preventive action rather than arresting foreign fishermen, the number of incidents decreased.

Secondly, activities of private fishermen proved to be nonetheless important. Fish stock depletion in coastal waters forced them to seek for new fishing grounds – often in the disputed waters. This led to an increasingly high number of incidents in the disputed territories, which peaked in around 2000. However, the potential role of Chinese fishermen in conflict escalation declined later.

The third factor, which appears to be of increasing importance in these territorial disputes, was Chinese coastal authorities. The middle of the last decade marked a turning point: while the majority of incidents before involved Chinese fishermen, since 2007 more of them occurred during the patrols of the authorities. They argued to be protecting the interests of Chinese fishermen and sought to prevent Vietnamese or, less often, Philippine boats from fishing in disputed waters. This is the major shift – from fishermen to coastal authorities – that occurred during the recent decades. Such observations confirm that recently China might be using fisheries as an excuse to reinforce its territorial claims in the South China Sea.

While these are the major factors that define the *status quo* in the area, the analysis showed that coastal environmental degradation and tighter fisheries control does not necessarily lead to a conflict. Yet, in the disputed areas with rich fishing grounds no workable frameworks leading to an international fisheries regime could be observed. That is to say, so far

there exist no checks that could curb potential conflict, which now could be facilitated more by Chinese coastal authorities rather than its fishermen in search for fishing grounds.

## APPENDIX

Incidents between China and the Philippines or Vietnam in the South China Sea involving fishing boats, 1990–2012 (*dark gray* marks the incidents during China's mid-summer moratorium in moratorium zone; *light gray* – during the moratorium but outside of the moratorium zone), compiled by the author.

Date	Approximate Location	Countries involved (fishermen – related authorities)	Incident
1	2	3	4
2012 April 8	The Scarborough Shoal	China–the Philippines	The beginning of the Scarborough Shoal standoff; A Philippine Navy surveillance plane spots 8 Chinese fishing vessels docked at the waters of Scarborough shoal; on April 10, the catch of the fishing vessels inspected.
2012 March 3	The Paracel Islands	Vietnam–China	Chinese authorities detain 21 Vietnamese fishermen and their two boats for fishing in waters near the Paracel Islands
2012 February 22	The Paracel Islands	Vietnam–China	Vietnamese fishermen blocked from seeking refuge in a storm; their fishing craft shot at and damaged by a China Marine Surveillance vessel
2011 October 18	The Spratly Islands (Reed Bank)	China–the Philippines	Chinese fishing vessel crosses path of disabled Philippine Navy patrol in a near collision
2011 July 5	The Paracel Islands	Vietnam–China	Sailors from China's navy beat the captain of a Vietnamese fishing boat and confiscate its catch
2011 June 9	The Spratly archipelago (Wanan Bank)	China–Vietnam	Vietnam accuses a Chinese fishing boat of ramming cables from an oil exploration vessel

1	2	3	4
2011 June 1	The Spratly Islands	Vietnam–China	Chinese military vessels reported to threaten to fire on a Vietnamese fishing boat
2011 February 25	The Spratly Islands (Reed Bank)	The Philippines–China	PLAN frigate fires 3 shots at 4 Filipino fishing boats
2010 September 11	The Paracel Islands	Vietnam–China	Vietnamese fishermen detained and their boat impounded; released October 12
2010 March 19	The Paracel Islands	Vietnam–China	A Chinese patrol vessel seizes a Vietnamese fishing boat and its 12-man crew
2009 August 1	The Paracel Islands	Vietnam–China	13 Vietnamese fishermen detained while seeking shelter from an approaching typhoon
2009 June 16	The Paracel Islands	Vietnam–China	12 Vietnamese fishermen arrested by Chinese fishing patrol
2007 July 9	The Paracel Islands	Vietnam–China	A Vietnamese fishing boat sinks after being rammed by a Chinese vessel
2007 April	The Spratly Islands	Vietnam–China	4 Vietnamese fishing boats detained by China
2004 January	Palawan Island, the Philippines	China–the Philippines	17 Chinese fishermen caught and accused of poaching; released in April 2004
2003 September 3	The Gulf of Tonkin	China–Vietnam	China charges that Vietnamese gunboats fired on its 2 fishing vessels in “traditional Chinese waters” in the Gulf of Tonkin
2002 January 31 – February 1	The Scarborough Shoal	China–the Philippines	95 Chinese fishermen arrested by the Philippine Navy
2001 September 26	Palawan Island	China–the Philippines	The Philippine Navy reports that one of its boats fired at a Chinese fishing vessel after an attempted ramming incident near Palawan
2001 June 10	The waters off central Vietnam	China–Vietnam	Vietnamese Coast Guards seize 4 Chinese vessels and their crew of 51 after finding them fishing

1	2	3	4
2001 May	Philippine territorial waters off Palawan	China–the Philippines	Philippine maritime police detains 2 Chinese fishing vessels and their crew of 34 for fishing illegally
2001 May 1	Philippine territorial waters off Palawan	China–the Philippines	A Philippine Navy patrol boat fires warning shots at a Chinese fishing vessel
2001 April 25	The Tonkin Gulf	China–Vietnam	2 Vietnamese naval ships seize <i>Danzhou 72007</i> , a Chinese fishing boat with 11 crew members in the southern fringe of the Tonkin Gulf
2001 April 23	The Spratly Islands	China- the Philippines	The Philippine Navy reports that 10 Chinese fishing vessels intruded into Philippine waters off Thitu and Nansha Islands and Second Thomas Shoal
2001 March 13	The Scarborough Shoal	China–the Philippines	A Philippine Navy boat interdicts 10 Chinese fishing vessels and seizes their belongings
2001 February 1		China–the Philippines	The Philippine Navy boards 4 Chinese fishing boats, confiscates their catch of endangered sea turtles, and orders them to leave Philippine waters
2001 January 31	The Scarborough Shoal	China–the Philippines	Philippine Navy ships and aircraft begin standoff with a group of PRC fishing vessels
2001 January 15	The Scarborough Shoal	China–the Philippines	A Philippine patrol craft spots 4 anchored Chinese fishing vessels
2000 May 26	Philippine territorial waters off Palawan	China–the Philippines	The captain of a Chinese fishing boat in is killed in a gunfight with pursuing Philippines' Coast Guard and maritime police
2000 May 9–24		China–the Philippines	Philippine reconnaissance aircraft periodically spots Chinese fishing vessels anchored near Philippine-claimed islands
2000 April 26	The Spratly Islands (Panata Reef)	China–the Philippines	Philippine Air Force reconnaissance plane spots an anchored Chinese fishing boat

1	2	3	4
2000 March 26	The Scarborough Shoal	China—the Philippines	The Philippine navy deploys two gunships to convince eight Chinese fishing vessels still moored near Scarborough Shoal to leave
2000 March 13	The Scarborough Shoal	China—the Philippines	Philippine navy vessels allow nine Chinese fishing crafts to shelter at Scarborough Shoal due to bad weather
2000 March 8–12	The Scarborough Shoal	China—the Philippines	The Philippines Navy sights a total of 16 Chinese vessels fishing illegally
2000 February 2	The Scarborough Shoal	China—the Philippines	Philippine navy destroyer escort <i>Rajah Humabon</i> fires warning shots after a short chase involving two Chinese fishing boats the
2000 January 30	The Spratly Islands	China—the Philippines	Philippines' Armed Forces Western Command reports that 7 Chinese fishing boats have been spotted near Second Thomas Shoal and 3 others near Pagasa, Lawak, and Patag Islands
2000 January 26	The Scarborough Shoal	China—the Philippines	The Philippine Navy boards 2 Chinese fishing boats and orders them out
2000 January 24–25	The Scarborough Shoal	China—the Philippines	A Philippine Navy ship chases 4 Chinese vessels carrying seaweed; 2 vessels seek refuge in shallow waters near the shoal
2000 January 23	The Scarborough Shoal	China—the Philippines	A Philippine Air Force spots 14 Chinese vessels
2000 January 6	The Scarborough Shoal	China—the Philippines	A Philippine Navy patrol spots 6 Chinese vessels loaded with fish and corals
1999 July 19	The Spratly Islands	China—the Philippines	A Chinese fishing boats sinks in a disputed area after a collision with a Philippine Navy ship
1999 May 23	The Scarborough Shoal	China—the Philippines	Chinese fishing boat sinks after colliding with the Philippines Navy; 3 fishermen rescued and detained

1	2	3	4
1999 March 10	The Scarborough Shoal	China–the Philippines	The Philippine Navy patrol arrests 29 fishermen, who are later charged with illegal possession of explosives and gathering of endangered corals
1998 January 11	The Scarborough Shoal	China–the Philippines	More than 20 Chinese fishermen detained and taken to the Subic Bay police station in the Philippines; released on May 5
1997 April	The Scarborough Shoal	China–the Philippines	The Philippine Navy orders a Chinese speedboat and two fishing boats to leave
1995 March 4	Palawan Island	China–the Philippines	62 Chinese fishermen detained, taken to a prison in the Philippines
1995 January	The Spratly Islands	The Philippines–China	A Captain of a Filipino fishing boat reports to Manila authorities being detained or a week by some Chinese, who had occupied the Mischief Reef

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