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RECEIVED 22 May 2025 ACCEPTED 13 June 2025 PUBLISHED 02 July 2025

CITATION

Jiang Q and Sun K (2025) Law enforcement toward better marine fisheries governance in China. Front. Mar. Sci. 12:1633302. doi: 10.3389/fmars.2025.1633302

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Law enforcement toward better marine fisheries governance in China

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This paper examines introduces China's marine fishery enforcement and judicial practices, highlights China's solutions and efforts in protecting marine fisheries. Currently, the profits of China's marine fisheries industry have continued to decline, and the economic development of the fisheries sector faces significant challenges. Through literature research and case analysis methods, this paper analyzes the theoretical guidance of good ocean governance for marine fisheries protection. Focusing on legislative, enforcement, and judicial dimensions of governance, it explores the problems in current legal regulation for marine fisheries protection and the practice of marine fisheries conservation in China. This study concludes that the eight elements of good ocean governance theory provide a theoretical framework for international and national marine fisheries protection through the logics of rules-based constraints, multi-stakeholder governance, and adaptive flexibility. Strong legal enforcement is essential for ensuring healthy and sustainable marine fisheries development.

KEYWORDS

marine fisheries, good ocean governance, disputes related to marine fisheries, fisheries law enforcement, marine fisheries governance in China

1 Introduction

The construction of a maritime power is a significant strategic task for achieving the great rejuvenation of China (People's Daily Online, 2022). As the earliest means through which China explored and utilized the oceans, marine fisheries have not only evolved from the starting point of China's maritime economic development (Mao et al., 2023) to become one

¹ The sustainable development and utilization of the oceans are closely linked to human survival and development. China, as one of the earliest States to explore and exploit the oceans, has a history dating back over 4,000 years. The coastal communities in China have long thrived by the sea, relying on fishing as a livelihood. In collaboration with people from around the world, they embarked on the path of exploring and exploiting the oceans. For more details, refer to the White Paper on China's Distant Water Fisheries Development by the State Council of the People's Republic of China.

² Marine fisheries represent the longest-standing industry in the development of China's maritime economy. For further insights, please refer to the research on the comprehensive net benefits assessment of marine fisheries.

of the four major pillars of China's maritime industries (Han et al., 2019), but have also played a crucial role in the construction of a maritime power through their enduring social profits (promotion of employment and income, ensuring food security) and rejuvenating ecological profits (reducing emissions and enhancing ecological contributions). In terms of quantity, by the year 2022, China's maritime product output reached 34.5953 million tons (Ministry of Agriculture and Rural Affairs of the People's Republic of China, 2023), the value added in marine fisheries reached 434.3 billion Chinese yuan (Ministry of Natural Resources of the People's Republic of China, 2023), the per capita net income of nearly 10,000 fishing households increased to 24,614.41 yuan (Ministry of Agriculture and Rural Affairs of the People's Republic of China, 2023), and the number of marine fishing vessel crew exceeded one million (Ministry of Transport of the People's Republic of China, 2020). Additionally, from 2001 to 2020, China's marine fisheries carbon sink increased from 68,098 tons to 85,185 tons (Liu and Ma, 2023). However, in terms of quality, the development mode of China's marine fisheries remains relatively extensive, with a simplistic production structure (Tong and Xia, 2017). The sustainability of fishermen's income faces challenges (Zhang et al., 2019), and issues such as marine environmental pollution are gradually becoming apparent. Against the backdrop of accelerating the construction of a maritime power and supply-side reforms, the profits of marine fisheries continue to decline. The deep-seated contradictions of imbalanced, uncoordinated, and unsustainable development in economic, social, and ecological profits have become the primary obstacles to the current development of the fisheries economy (Huo et al., 2020).

This paper takes the interaction between marine fisheries and good ocean governance as its starting point. It analyzes the objective requirements and theoretical guidance imposed by the core elements of good ocean governance on marine fisheries protection. From three governance dimensions—legislation, law enforcement, and judiciary—it explores existing issues in the legal regulation of marine fisheries protection through dual perspectives of international and domestic law. By introducing China's practices in marine fisheries law enforcement and judicial adjudication, it demonstrates China's solutions and efforts in marine fisheries conservation. Finally, it emphasizes the critical significance of sound legal implementation for ensuring the healthy and sustainable development of marine fisheries.

2 Marine fisheries and good ocean governance

To advance the legal governance process in marine fisheries, a crucial step is to integrate the rich connotation of marine fisheries into the legal system in a rational and scientific manner (Qian, 2015). To achieve this, it is vital to deeply understand the connotation of marine fisheries, grasp their dynamic evolution trends, and simultaneously examine the current international legal framework for fisheries. This framework is primarily coordinated by the United Nations Convention on the Law of the

Sea (UNCLOS),³ as well as the domestic legal framework for fisheries centered on the Fisheries Law in China.

2.1 Connotation of marine fisheries

Clarifying the conceptual connotation is a prerequisite for scientific research (Xu and Zhu, 2018). However, due to varying classification criteria, considerations of profit, and historical contexts, distinctions in the connotation of marine fisheries exist. For instance, when it comes to dividing operational waters, differences are evident in the definitions provided by regulations and academic works related to marine fisheries. The "Implementation Regulations on the Fisheries Law of the People's Republic of China" (the "Implementation Regulations"), effective since 1987, classify in Article 14 the Bohai Sea and the Yellow Sea as nearshore fishing grounds and offer a more precise division between nearshore and offshore fishing grounds for the East China Sea and the South China Sea, specifically under the fishing industry in Chapter 4.4 In contrast, the "China Fisheries Zoning" (He et al., 2003), published in 1988, does not differentiate between aquaculture and fishing industries but categorizes fishing zones based on water depth, dividing them into four types: coastal, nearshore, offshore, and deep-sea fisheries (Ma et al., 2007). Entering the 21st century, with the development of marine fisheries and increased demand for management, the 2010 edition of "Fishery Introduction" further refines the classification of marine fisheries, explicitly dividing them into coastal fisheries, nearshore fisheries, offshore fisheries, and deep-sea fisheries (Zhou, 2010). This classification more closely aligns with the development characteristics and management needs of modern marine fisheries. At the policy level, the "Several Opinions on Promoting the

³ United States Convention on the Law of the Sea, opened for signature 10 December 1982, 1833 *U.N.T.S.* 397 (entered into force 16 November 1994).

A Article 14 of the Implementing Rules of the Fisheries Law of the People's Republic of China: Division of Nearshore and Offshore Fishing Grounds: (1) The Bohai Sea and the Yellow Sea are designated as nearshore fishing grounds. (2) The East China Sea nearshore fishing grounds are within the sea area measured between lines connecting the following four points: 1. North latitude 33 degrees, East longitude 125 degrees; 2. North latitude 29 degrees, East longitude 125 degrees; 3. North latitude 28 degrees, East longitude 124 degrees 30 minutes; 4. North latitude 27 degrees, East longitude 123 degrees. The offshore fishing grounds in the East China Sea are located beyond the outer sides of the lines connecting these four points. (3) The nearshore fishing grounds in the South China Sea are within the sea area measured inside two depth lines: 1. The 80-meter depth line east of longitude 112 degrees; 2. The 100-meter depth line west of longitude 112 degrees. The offshore fishing grounds in the South China Sea are situated beyond the outer sides of these two depth lines.

⁵ In the 1988 publication "China's Fisheries Zoning", aquaculture and fishing were not differentiated. Instead, areas were uniformly categorized based on water depth: coastal fishing grounds for waters up to 40 meters deep, nearshore fishing grounds for depths between 40 and 100 meters, offshore fishing grounds for depths between 100 and 200 meters, and deep-sea fishing grounds for depths exceeding 200 meters.

Sustainable and Healthy Development of Marine Fisheries," issued by the State Council in 2013, advocates for "controlling nearshore, developing offshore, and expanding deep-sea" fisheries, based on the integration of aquaculture and fishing (Central People's Government of the People's Republic of China, 2013). This policy orientation not only reflects the current state of China's marine fisheries development but also provides guidance for future directions. The delineation of these boundaries provides crucial geographical context for understanding different types of marine fisheries and offers substantial support for policy implementation. Based on different operational methods, marine fisheries encompass activities such as marine aquaculture and ocean fishing etc. Considering social and ecological profits, the emphasis of the connotation of marine fisheries is on the protection of marine fisheries resources and the ecological environment, as well as the adjustment of the production structure and layout of marine fisheries (Central People's Government of the People's Republic of China, 2013). From the perspective of economic profits, it leans more towards clarifying the connotation of marine fisheries based on the homogeneity principle of economic activities (National Standards Public Information Service Platform, 2021).

In the context of social and ecological benefits, and to enhance the protection, replenishment, development, and rational utilization of fishery resources, safeguard the legitimate rights and interests of fishery producers, promote the advancement of fishery production, and satisfy the demands of socialist construction and the people's lives,6 the "Fisheries Law of the People's Republic of China," promulgated in 1986 (the "Fisheries Law"), categorized fishery production into three segments: aquaculture, fishing, and processing.⁷ Although this classification has remained consistent, it is not static. Given the trend of declining fishery resources and shifts in society's primary challenges, to foster sustainable development in fisheries and meet the increasing expectations for a better quality of life in socialist modernization,8 the draft amendment to the "Fisheries Law of the People's Republic of China" in 2019 (for solicitation of opinions) introduced replenishment and recreational fisheries as methods of fishery production, in addition to aquaculture, fishing, and processing, in Article 3.9 Consequently, within the social and ecological framework, the connotation of marine fisheries encompasses marine aquaculture, ocean fishing, maritime product processing, marine replenishment fisheries, and marine recreational fisheries.

In the realm of economic profits, the definition of marine fisheries has undergone a complex evolution, transitioning from expansion to contraction, and from ambiguity to specificity. An examination of the terminology used for marine fisheries in the "China Maritime Economic Statistics Bulletin" published by the Ministry of Natural Resources over the years, demonstrates this evolution clearly. In 2003, marine fisheries encompassed activities such as marine aquaculture and ocean fishing; by 2004, the definition had expanded to include marine aquaculture, ocean fishing, and the marine aquatic product processing industry. From 2005 to 2012, marine fisheries were described as including activities like marine aquaculture, ocean fishing, marine fisheries services, and marine aquatic product processing, among others. Between 2013 and 2021, the scope of marine fisheries was further detailed to include marine aquaculture, ocean fishing, deep-sea fishing, marine fisheries services, and marine aquatic product processing. By 2022, the definition of marine fisheries narrowed to include marine aquaculture, ocean fishing, and marine fisheries professional and ancillary activities (Ministry of Natural Resources of the People's Republic of China, 2023), explicitly excluding the processing of marine aquatic products (National Bureau of Statistics, 2023). The professional and ancillary activities of fisheries (National Bureau of Statistics, 2020) include various activities related to fishery production, such as fish fry and seedling farms, 11 high-quality aquatic breed farms, and aquaculture enhancement farms. 12 Therefore, within an economic context, the current scope of marine fisheries involves only the primary industry of marine aquaculture and ocean fishing, as well as the tertiary industry's professional and ancillary activities related

⁶ Article 1 of the Fisheries Law of the People's Republic of China.

⁷ Article 3 of the Fisheries Law of the People's Republic of China stipulates: "The state adopts the policy of giving priority to aquaculture in fisheries production, promoting the development of aquaculture, fishing, and processing simultaneously, and formulating specific priorities based on local conditions."

⁸ Ministry of Agriculture and Rural Affairs of the People's Republic of China: Article 1 of the "Draft Amendment to the Fisheries Law of the People's Republic of China" (Draft for Soliciting Opinions).

⁹ Ministry of Agriculture and Rural Affairs of the People's Republic of China: Article 3 of the "Draft Amendment to the Fisheries Law of the People's Republic of China" (Draft for Soliciting Opinions) states: The state promotes the development of fisheries production with aquaculture as the main focus. It advocates green, safe, and coordinated development in aquaculture, enhancement, fishing, processing, and recreational fisheries. Policies are tailored to local conditions, with specific priorities in different regions.

¹⁰ The "China Marine Economic Statistical Bulletin" from 2003 to 2017 was issued by the State Oceanic Administration.

¹¹ The activities related to fry and fish seed farms include: (1) fry and fish seed cultivation and aquaculture services; (2) utilizing biotechnology to cultivate and breed fry and fish seeds, providing related services. Excluded activities are the promotion of biotechnology for fry and fish seed cultivation. This information is sourced from the National Bureau of Statistics: "Explanation of the National Economic Industry Classification of 2017" (Revised according to the first modification), Available online: P020230213403084213497.xlsx (live.com).

¹² Other fisheries-related and auxiliary activities include: (1) medication for fish diseases and services related to the prevention and control of fish diseases; (2) services related to fisheries machinery; (3) smart agricultural management (partial): utilizing modern information technologies such as big data, the Internet of Things (IoT), and the internet for the management of fisheries breeding and production operations; (4) other fisheries services; (5) comprehensive utilization of fishery processing waste. Excluded activities are: (1) water product quality supervision, inspection, and testing; (2) promotion activities for aquaculture technologies. This information is based on the National Bureau of Statistics: Explanation of the National Economic Industry Classification of 2017 (Revised according to the first modification), Available online: P020230213403084213497.xlsx (live.com).

to marine fisheries. The secondary industry's involvement in marine aquatic product processing is now excluded from the definition of marine fisheries.

The policy guidelines for marine fisheries have evolved adaptively in response to the continuous development of China's political, economic, and social landscapes. Following the establishment of the People's Republic of China in 1949, fisheries production was primarily sourced from marine and freshwater fishing. By 1959, the Second Plenary Session of the Eighth Central Committee of the Communist Party of China introduced the guiding principle of "developing both aquaculture and fishing" (Huang and Tang, 2019). In 1986, the enactment of the "Fisheries Law" established the policy of "primarily focusing on aquaculture, complemented by a combination of aquaculture, fishing, and processing, and adapting to local conditions with each aspect having its emphasis." This policy officially marked the focus of China's fisheries policy on aquaculture, leading to over a decade of rapid growth in the aquaculture industry, with an average annual growth rate of around two digits. By 1988, China became the only country in the world where aquaculture output surpassed that of fishing (China Academy of Fishery Sciences. Institute of Fisheries Machinery and Instrumentation, 2020). In 2013, the State Council issued the "Several Opinions on Promoting the Sustainable and Healthy Development of Marine Fisheries," emphasizing "prioritizing ecology, integrating aquaculture and fishing, controlling nearshore activities, expanding offshore efforts, and developing open-sea operations." This document aimed to bolster the protection of marine fisheries resources and the ecological environment, continuously enhancing the sustainable development capacity of marine fisheries. Upholding the principle that "food security is of utmost importance to the nation," the National Food and Strategic Reserve Administration, guided by the principle of "seeking food from the sea," deepened the focus on sustainable development within marine fisheries, advocating for aquaculture where suitable, and fishing where appropriate (The People's Government of the People's Republic of China, 2023).

2.2 Theoretical guidance for good ocean governance

Good Ocean Governance Theory encompasses eight core elements: rule of law, public participation, transparency, consensus-based decision-making, accountability, equity and inclusiveness, responsiveness, and coherence (Chang, 2013). This framework offers a vital remedy to reconstruct the underlying logic of marine fisheries governance.

The rule of law requires that laws be promulgated through appropriate channels and enforced fairly and effectively (Chang, 2013). International rule of law serves as the cornerstone of marine fisheries governance, establishing boundaries for state conduct through universally binding international conventions and regulatory frameworks. For example: The Fish Stocks Agreement empowers Regional Fisheries Management Organizations (RFMOs)

to negotiate fishing quotas, preventing predatory exploitation of resources. Under the United Nations Convention on the Law of the Sea (UNCLOS), coastal states may enact regulations and enforce rules—including boarding, inspection, seizure, and legal proceedings—against foreign vessels violating fisheries laws within their Exclusive Economic Zones (EEZs). Coastal states also retain the authority to establish penalty mechanisms for non-compliant vessels.

Without a robust evaluation mechanism, the decision-making process remains incomplete. Public participation facilitates the review of existing institutional arrangements, enabling the identification and implementation of substantive institutional reforms for sustainable development (Chang, 2013). This includes interdepartmental coordination and societal engagement during planning. The complexity of marine fisheries governance necessitates moving beyond a government-centric model toward global multi-actor collaboration. From a national governance perspective, this involves building an interaction network spanning states, organizations, and individuals. By integrating stakeholders and expanding the power of social supervision, it is possible to make up for the deficiencies in the governance of marine fisheries in sovereign States. For example, encouraging fishermen to participate in the identification of closed areas, mediating fisheriesrelated disputes and organizing volunteers to carry out stock enhancement activities can enhance the efficiency with which incidents of illegal fishing are prevented, identified and stopped.

In advancing public participation, the elements of consensusbased decision-making and equity and inclusiveness are inherently embedded. Consensus-based decision-making requires that all relevant stakeholders' opinions be respected. Marine fisheries governance must coordinate the interests of multiple actorsgovernments, enterprises, fishers, etc. Such a mechanism, through negotiation and compromise, avoids "policy implementation resistance." At the international level, institutional design should not solely focus on the freedom of the high seas and the common heritage of mankind principles. It must also balance procedural fairness and substantive fairness to address diverse interests. Domestically, beyond incorporating expert opinions and demands from fishers/enterprises, neighboring provinces and municipalities should enhance coordination to improve enforcement efficiency. For example, Liaoning Province signed a fisheries law enforcement cooperation memorandum with Shandong, Hebei, and Tianjin (Department of Agriculture and Rural Affairs of Liaoning Province, 2021). This initiative enables sharing of personnel, equipment, and information resources. It establishes an inter-provincial enforcement coordination channel, filling a gap in the collaborative mechanism for the Yellow-Bohai Sea region. The 1995 Fish Stocks Agreement emphasizes ensuring access for small-scale and artisanal fishers, women processors and indigenous communities in developing states (especially small island nations). The core objective of equity/ inclusiveness is to respect individual rights and interests. Equitable benefit distribution and intergenerational equity remain critical yet challenging issues in marine fisheries governance.

Accountability requires that authority and responsibility align. Administrative agencies must clarify their jurisdictional boundaries (Chang, 2013). Marine fisheries governance needs accountability constraints to avoid regulatory failure. Full-chain accountability linked to performance evaluations ensures that "authority entails responsibility, and responsibility demands accountability." Government departments (e.g., fisheries administrative departments, China Coast Guard) must define their responsibilities to prevent fragmented oversight or accountability gaps. Responsiveness emphasizes the necessity for public authorities to make decisions within a specific timeframe. Facing new challenges from climate change, it enhances the adaptability of marine fisheries governance through flexible adjustments and emergency mechanisms.

Transparency requires public authorities to disclose environmental information, including details about decision-making processes (Chang, 2013). In marine fisheries governance, transparency directly impacts public trust and policy effectiveness. States must disclose specific key data to enhance industry transparency, combat illegal fishing, and promote sustainable management. For example, the WTO Agreement on Fisheries Subsidies, which restricts subsidy quantity/quality, strengthens international cooperation, and establishes information-sharing mechanisms. The EU's "Fisheries Database", integrating catch data across member states to achieve full-chain traceability. At the national level, transparency—through information disclosure and visible processes—also serves as a mechanism to oversee government actions.

Coherence emphasizes the mutual consistency of decisions across public authorities (Chang, 2013). It requires rationality across different eras and institutions. Coherence also entails synergy between domestic and international rules. Rule-making cannot be detached from reality. Marine fisheries governance relies on state practice, and ensuring sustainable development is a shared obligation of all states. Coastal states must strictly establish and refine domestic legal frameworks based on international legal structures. They must enforce laws rigorously to combat illegal fishing. Third, coherence demands that while granting local governments discretion to adapt to local conditions, states must ensure alignment between local marine fisheries policies/legislation and central directives. Fourth, as stipulated in Article 2 of the Fisheries Law, "Activities involving the cultivation or harvesting of aquatic animals and plants within China's internal waters, tidal flats, territorial sea, Exclusive Economic Zone (EEZ), and all other jurisdictional maritime areas must comply with this Law." Coherence also means no conflicts should exist within a state's internal marine fisheries legal norms.

3 Marine fisheries and related legislation

At the legislative level, good ocean governance balances national sovereignty with international cooperation through the elements of rule of law, consensus, and coherence. It facilitates the convergence of international and domestic legal frameworks for marine fisheries protection. Simultaneously, it provides legal foundations for addressing emerging challenges like climate change.

3.1 International legal basis for safeguarding marine fisheries

Given the interconnected nature of the oceans, the management and protection of marine fisheries necessitate collective participation and cooperation among states. In this endeavor, UNCLOS, as well as along with legal frameworks established by the Food and Agriculture Organization of the United States, the World Trade Organization, and other entities, according to their respective responsibilities, plays an instrumental role in coordinating and balancing the interests of states engaged in marine fisheries activities. These legal instruments are pivotal in promoting sustainable development within the realm of marine fisheries.

3.1.1 UNCLOS

UNCLOS lays down a comprehensive framework for defining national sovereignty and sovereign rights over maritime zones, embodying principles like the "freedom of fishing on the high seas" and the "common heritage of mankind" (Shi, 2023). It outlines the rights of States to engage in fishing activities through their nationals in specified maritime zones (Wang and Chang, 2019). Specifically, the second part of UNCLOS grants coastal States exclusive rights to autonomously manage the development of marine fisheries within their territorial waters. The fifth part of UNCLOS, dealing with the Exclusive Economic Zone (EEZ) regime, clearly states that coastal States possess sovereign rights for the purpose of "exploring and exploiting" living resources. The terms "exploring and exploiting" are interpreted to include all forms of fishing activities, whether they are for commercial or recreational (Huang, 2012). 14 Conserving and managing are understood in a broad sense, encompassing all appropriate conservation and management practices related to living resources, including the implementation of various measures (Huang and Tang, 2010). 15 Furthermore, coastal States have the authority to regulate foreign vessels engaged in fishing within their

¹³ Eurostat. Fisheries Database. Available online at: https://ec.europa.eu/eurostat/web/fisheries/database.

¹⁴ Exploration and development include: exploring and locating fishing grounds; using fishing gear for fishing; loading and processing the catch, or transshipping the catch to other vessels; transporting the catch back to port; selling the catch, and so on.

¹⁵ Conservation and management include measures to preserve biological resources, acquiring, analyzing, and exchanging information related to biological resources; determining the extent of utilization of biological resources; deciding on the vessels, instruments, fishing gear, machinery, and equipment that can be used in the exploration and development of biological resources; determining operating times and fishing grounds; as well as all matters related to fishing operations, such as the collection of taxes and license fees for fisheries.

EEZ by enacting regulations, enforcing these rules¹⁶ through actions such as boarding, inspection, arrest, and legal proceedings,¹⁷ and even setting up penalty mechanisms for vessels that infringe upon fisheries regulations.¹⁸

The sixth part of UNCLOS, which addresses the Continental Shelf regime, establishes that coastal States have exclusive sovereign rights over the living resources on their continental shelf, specifically for the purpose of harvesting sedentary species.¹⁹ This provision excludes other States from exploiting these species through fishing activities. In the seventh part of UNCLOS, concerning the regime of the High Seas, the legal status of fisheries resources on the High Seas is deemed "common heritage of mankind" (Brownlie, 2007), meaning they are not owned by any State or individual. Based on the principle of freedom of the high seas, fisheries resources on the High Seas are openly accessible to all States (Wang and Chang, 2019), and allowing nationals of all States to engage in marine fisheries activities on the High Seas to utilize these resources. Within the areas governed by the eleventh part of UNCLOS, known as the "Area", 20 sedentary species are also present.²¹ However, the sedentary species found in the "Area" have not been identified in quantities sufficient for commercial harvesting (Nandan and Rosen, 2009), rendering large-scale fishing activities unfeasible.

In summary, UNCLOS, through different provisions for States in various legal positions in different maritime zones, clarifies the responsibilities and obligations of coastal States and fishing States on the High Seas in protecting and managing marine biological resources. These differentiated provisions are intended to prompt States to adopt reasonable management measures to achieve sustainable development in marine fisheries. Additionally, UNCLOS emphasizes the importance of international cooperation, urging States to strengthen collaboration from the perspective of conserving and managing biological resources (Huang and Liu, 2009), and collectively safeguarding marine ecological balance and sustainable development.

3.1.2 Other multilateral fisheries agreements

In 1995, the "Agreement for the Implementation of the Provisions of the United States Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks" (the "Fish Stocks Agreement") was established to emphasize cooperation, the creation

16 Refer to Article 62, paragraph 4, of the United States Convention on the Law of the Sea.

of regional fisheries management organizations or arrangements, the adoption of conservation and management measures, the strengthening of enforcement and compliance, as well as the promotion of scientific research and information sharing to safeguard marine fisheries. Additionally, in 1995, the FAO introduced the "Code of Conduct for Responsible Fisheries." The preface of this document stated its purpose as providing "a necessary framework for national and international efforts to ensure the sustainable exploitation of aquatic living resources in harmony with the environment." The content of the Code regulates the development of fisheries management, fishing operations, and aquaculture, incorporating principles of conservation and management, ecosystem approaches, compliance with laws and regulatory requirements, scientific decision-making and information sharing, and social and economic sustainability. Under the auspices of the "Code of Conduct for Responsible Fisheries," the FAO has developed a series of action plans and guidelines for fisheries, which include:

International Plan of Action for the Management of Fishing Capacity (IPOA-Capacity): This plan mandates States to assess and manage their fishing capacities to ensure alignment with the sustainable utilization of fishery resources.

International Plan of Action for the Conservation and Management of Sharks (IPOA-Sharks): This requires States to implement measures to regulate the fishing and utilization of sharks, safeguard their habitats, and foster the sustainable development of shark fisheries.

International Plan of Action for Reducing Incidental Catch of Seabirds in Longline Fisheries (IPOA-Seabirds): This encourages States to adopt suitable measures, such as deploying bird-scaring devices and enhancing fishing techniques, to minimize the incidental catch of seabirds.

International Plan of Action to Prevent, Deter, and Eliminate Illegal, Unreported, and Unregulated Fishing (IPOA-IUU): This mandates States to enhance cooperation and implement effective enforcement and regulatory measures to combat IUU fishing, ensuring the legality and sustainability of fishing activities (Kao, 2015).

Fishery guidelines include, (1) International Guidelines on the Management of Deep-sea Fisheries in the High Seas (2008); which addresses the technical aspects of managing deep-sea fisheries on the High Seas. (2) International Guidelines for the Management of Bycatch and Discards (2011); aimed at reducing the impact of fishing activities on non-target species. (3) Voluntary Guidelines for Flag State Performance (2014); which strengthens the international responsibilities and obligations of flag states in flagging and controlling fishing vessels and provides guidance on monitoring and enforcement (Food and Agriculture Organization of the United States, 2013). (4) "Voluntary Guidelines on the Marking of Fishing Gear" (2023) adopted which sets minimum standards for the transshipment of catches between States. (5) "Code of Conduct for Responsible Fisheries" which incorporates the "Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas" (1993). This Agreement aims to enhance the role of flag States, strengthen their responsibilities, and regulate the activities of all High Seas fishing vessels under their control, promoting

¹⁷ Refer to Article 73, paragraph 1, of the United States Convention on the Law of the Sea.

¹⁸ Refer to Article 73, paragraph 3, of the United States Convention on the Law of the Sea.

 $^{\,}$ 19 $\,$ Refer to Article 77 of the United States Convention on the Law of the Sea.

^{20 &}quot;Region" refers to the seabed and ocean floor beyond the limits of national jurisdiction and their subsoil. Refer to Article 1, paragraph 1, of the United States Convention on the Law of the Sea.

²¹ There are also numerous valuable microbial resources within the "region" with research and utilization potential. However, they do not fall within the scope of fisheries resources, and this article does not discuss them.

information exchange and international cooperation to ultimately achieve the goal of maintaining sustainable marine fisheries (Food and Agriculture Organization of the United States, 2021).

In 2009, the "Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing" became the first binding international treaty specifically addressing IUU fishing. By prohibiting vessels engaged in IUU fishing from using ports and landing their catches, this Agreement aims to prevent fisheries products resulting from IUU fishing from entering domestic and international markets. It seeks to reduce the motivation for vessels to engage in IUU fishing, thereby advancing the goals of prevention, deterrence, and elimination of IUU fishing. The effective implementation of this Agreement is beneficial for the long-term protection and sustainable utilization of marine biological resources and ecosystems (Food and Agriculture Organization of the United States, 2021), ultimately contributing to the sustainable development of marine fisheries.

The "Convention on Biological Diversity," adopted in 1992, along with the "Agreement on the Conservation and Sustainable Use of Marine Biological Diversity of Areas beyond National Jurisdiction" released in 2023 under UNCLOS,²² plays a crucial role in safeguarding marine fisheries. Their contributions are primarily manifested in the protection of marine ecosystems, promotion of international cooperation and coordination, regulation of fisheries management, and advancement of scientific research and technological innovation beyond the national jurisdiction areas defined by UNCLOS.

In 2022, the "Agreement on WTO Fisheries Subsidies" was adopted, emphasizing the crucial importance of prohibiting illegal, unreported, and unregulated (IUU) fishing and overfishing. It seeks to restrict the quantity and quality of fisheries subsidies, enhance international cooperation and coordination, and establish mechanisms for information sharing. The Agreement aims to maintain the sustainability of marine fisheries.

3.2 Domestic legal basis for safeguarding marine fisheries

The domestic legal framework in China for safeguarding marine fisheries centers around the Fisheries Law as its core, supplemented by the "Regulations on the Management of Distant Water Fisheries" and supported by various laws and regulations. These include the "Marine Environment Protection Law of the People's Republic of China," the "Law of the People's Republic of China on the Sea Areas Use and Management," the "Regulations on the Inspection of Fishing Vessels of the People's Republic of China," the "Regulations on Seafarers," and the "Regulations on Distant Water Fisheries Management." This comprehensive legal framework ensures the protection and management of marine fisheries in an all-encompassing manner, covering aspects such as

safeguarding and managing fishery resources, regulating fishery production, overseeing the safety of fishing vessels, and promoting the sustainable development of distant water fisheries.

The Fisheries Law serves as the guiding regulation for fishing activities in China.²³ It applies to inland waters, tidal flats, territorial seas, Exclusive Economic Zones (EEZs), and other sea areas under the jurisdiction of the People's Republic of China.²⁴ The Law defines the nature, status, and role of fisheries, establishing principles of unified national leadership, hierarchical management, and prioritizing aquaculture, with fishing as a supplementary activity. It aims to propel the development of fisheries towards high-quality, efficient, and ecological directions. Additionally, the Law emphasizes the rights and obligations of fishermen, safeguarding their autonomy in production and business operations, as well as their economic interests. It regulates the behavior of fishermen, promoting the sustainable development of fisheries (Dong, 2020).²⁵ Finally, the Law outlines the responsibilities and tasks of the various levels of the people's government in fisheries development. It strengthens the protection and management of fisheries resources, intensifies penalties for illegal activities, and ensures the healthy development of fisheries and the protection of the ecological environment.

The "Regulations on Distant Water Fisheries Management" detail and standardize China's distant water fishing activities, contributing to the sustainable development of marine fisheries. They achieve this through various measures, including clarifying government responsibilities, regulating corporate behavior, and strengthening law enforcement. First, the Regulations establish a catch quota management system and fishing permit system for distant water fisheries. This approach helps to control the scale of distant water fishing, addressing concerns such as overfishing and environmental damage, thereby ensuring the healthy and stable development of marine ecosystems.²⁷ Second, the Regulations

²² Article 4 of the Convention on Biological Diversity explicitly limits the scope of the convention to activities within the jurisdiction of regions and States.

²³ Ministry of Agriculture and Rural Affairs of the People's Republic of China, Explanation on the "Draft Amendment to the Fisheries Law of the People's Republic of China (Solicitation of Comments)."

²⁴ Article 2 of the Fisheries Law of the People's Republic of China.

²⁵ Article 1 of the Fisheries Law of the People's Republic of China states that the legislative purpose includes safeguarding the legitimate rights and interests of fishery producers. Article 2 specifies that all fishery production activities in the jurisdictional waters of the People's Republic of China must comply with this law. Other provisions emphasizing the rights and obligations of fishermen and regulating their behavior are scattered throughout Chapter II on aquaculture, Chapter III on fishing, Chapter IV on the augmentation and protection of fishery resources, and Chapter V on legal responsibilities in the law. Additionally, China's "Fisheries Law" regards fishery rights as a qualification granted by the fishery administrative authorities or based on the contract, allowing the utilization of specific waters for fishing activities and gaining benefits. In essence, it is a form of professional qualification, granting the freedom to engage in specific activities (fishing, aquaculture, recreational fishing, etc.) in designated waters.

²⁶ Article 6, Article 7, Article 38 to Article 49 of the Fisheries Law of the People's Republic of China.

²⁷ Article 1 of the Regulations on the Management of Distant Water Fisheries.

mandate that distant water fishing enterprises adhere to international fisheries treaties, agreements, and management regulations. This ensures that their operations are in line with international standards and norms, contributing to the maintenance of China's international image and interests.²⁸ Additionally, the Regulations define the responsibilities and powers of governments at various levels and relevant departments in the management and supervision of distant water fisheries. This framework aids in enhancing regulatory efforts, combating illegal activities, and safeguarding the legitimate rights and interests of fishermen and social stability.²⁹

The "Marine Environment Protection Law" plays a pivotal role in creating a healthy ecological environment essential for the sustainable development of marine fisheries. It achieves this by preventing and controlling marine pollution and regulating the development and utilization of marine resources.³⁰ Concurrently, the "Law of the People's Republic of China on the Sea Areas Use and Management" contributes to the stability and sustainability of marine fisheries. It does so by specifying government responsibilities, regulating behaviors related to marine utilization, and reinforcing law enforcement measures.31 Additionally, addressing the tools and personnel aspects of marine fisheries, the "Regulations on Inspection of Fishing Vessels" and the "Regulations on Seafarers" are designed to safeguard the safety and sustainability of marine fisheries. They accomplish this by standardizing the inspection and maintenance procedures for fishing vessels and regulating the conduct of seafarers,³² ensuring both are aligned with the overarching goals of environmental protection and sustainable fisheries management.

3.3 Evaluation of legislation relating to marine fisheries

It is noteworthy that the current legal framework for international fisheries governance exhibits the characteristic of "soft law as the primary component and hard law as supplementary". The binding force of different instruments varies significantly, resulting in uneven implementation effectiveness. Although the United Nations Convention on the Law of the Sea (UNCLOS) has been recognized since the last century as the core

legal framework for global ocean governance, gaining international acceptance and covering nearly all maritime affairs, it inevitably possesses limitations, such as broad in scope, politically negotiated, and lagging in development. These limitations are particularly evident in international ocean fisheries governance. On one hand, the Convention grants coastal states exclusive sovereign rights over natural resources within their Exclusive Economic Zones (EEZs). However, it fails to quantify "sustainable utilization", allows coastal states broad discretion in interpreting "conservation obligations", and lacks appropriate penalty mechanisms. On the other hand, under the principle of "freedom of the high seas", there exists a significant disparity in resource management and utilization capabilities between developing and developed nations. This often leads countries to adopt a "first-come, first-served" approach. Consequently, fisheries resources become "common-pool resources", thus leading to the "tragedy of the commons" (Bai, 2012).

Other fishery agreements were intended to act as important supplements to the United Nations Convention on the Law of the Sea (UNCLOS). However, they have revealed certain issues in practice. The Code of Conduct for Responsible Fisheries (CCRF) itself lacks legally binding force. Its subsidiary plans and guidelines, while detailing management requirements, remain voluntary guidelines in essence. Although they call for "strengthened cooperation and implementation of effective enforcement," they fail to define specific standards for such enforcement. This includes aspects like inspection frequency and penalty severity. Consequently, implementation standards and commitment levels vary considerably among states.

Legally binding instruments such as the 2009 Port State Measures Agreement (PSMA), the BBNJ Agreement, and the WTO Fisheries Subsidies Agreement also exhibit deficiencies in their institutional design. For instance, the PSMA suffers from insufficient national implementation clauses within its treaty text, lacks institutional coordination mechanisms, and is deficient in supporting systems such as catch traceability (Chen and Xue, 2024). The BBNJ Agreement fails to directly establish conservation standards for fishery resources and demonstrates insufficient synergy with UNCLOS and the UN Fish Stocks Agreement (UNFSA). Although the UNFSA mandates the "establishment or strengthening of RFMOs" (Regional Fisheries Management Organizations), it does not specify their decision-making mechanisms, membership criteria, or dispute resolution procedures. The WTO Fisheries Subsidies Agreement prohibits subsidies related to "illegal and overfished stocks," but fails to define quantifiable criteria for "overfishing." Furthermore, it allows member states to retain certain subsidies through "Special and Differential Treatment" (S&DT) provisions.

In summary, the international legal framework for ocean fisheries governance has failed to abandon the logic of "traditional state-centrism". In practice, it continues to reveal long-standing problems. These include the unreasonable allocation of rights and obligations and insufficient binding force. Simultaneously, the framework has proven inadequate in adapting to new challenges, including but not limited to climate change.

²⁸ Article 29, Article 30, and Article 31 of the Regulations on the Management of Distant Water Fisheries.

²⁹ Article 4, Article 37, and Article 38 of the Regulations on the Management of Distant Water Fisheries.

³⁰ Article 1, Article 2, and Article 3 of the Law of the People's Republic of China on the Protection of the Marine Environment.

³¹ Article 1, Article 4, Article 5, Article 6, Article 7, Article 8, Article 11, Article 25, Article 35, Article 36, Article 39, etc., of the Law of the People's Republic of China on the Administration of Sea Areas.

³² Article 1 of the Regulations on the Inspection of Fishery Vessels of the People's Republic of China; Article 1 of the Regulations on Seafarers of the People's Republic of China.

Based on China's legislative practices in marine fishery protection, the current legal system for marine fisheries in China, while comprehensively ensuring protection and management covering the conservation and management of fishery resources, standardization of fishery production, supervision of fishing vessel safety, and sustainable development of distant-water fisheriesexhibits notable deficiencies in safeguarding the rights and interests of fishery practitioners and addressing the differentiated needs of regional development. Moreover, there are areas requiring improvement in the coordination of legal norms and the establishment of supporting rules. For instance, a multi-norm legal framework can create risks of "unified guidance" conflicting with "fragmented implementation," necessitating enhanced coordination of legal norms. Simultaneously, significant disparities exist in the economic development levels and marine fishery resources across different regions of China. Therefore, national-level marine fishery legislation should avoid a "one-size-fits-all" approach and must allow space for local legislation to adapt to local conditions. This has resulted in legal rules failing to clearly define "eco-friendly" technical standards. On the other hand, China's current fishery legal system employs a top-down regulatory model for setting control indicators. This model lacks sufficient binding force on administrative actions and fails to foster positive interaction among multiple stakeholders. Consequently, it not only places substantial pressure on enforcement but also, to some extent, limits the effectiveness of legal implementation (Lu and Wang, 2018).

4 Marine fisheries and administrative law enforcement

Fisheries law enforcement is a crucial instrument for ensuring the orderly and standard operation of marine fisheries. The preservation of order in marine fisheries production is not only a fundamental necessity for the healthy and sustainable growth of marine fisheries but also a vital requirement to defend China's maritime rights and interests against violations (Chang and Chen, 2015). At the law enforcement level, leveraging transparency, responsiveness, and public participation enables the construction of a marine fisheries protection law enforcement system with clearly defined responsibilities and multi-stakeholder involvement. This facilitates a shift from an end-punishment model to whole-process prevention and control.

4.1 Maritime fisheries law enforcement

Maritime fisheries law enforcement encompasses the duties of fisheries authorities to monitor and enforce laws and regulations pertinent to the protection of fisheries resources, management of fisheries production, and regulation of the fisheries market. The objective of fisheries law enforcement is to ensure the sustainable utilization of fisheries resources, safeguard the marine ecological environment, uphold order within the fisheries market, and foster the growth of the fisheries economy.

4.2 Maritime fisheries law enforcement system

4.2.1 Main bodies of maritime fisheries law enforcement

In maritime fisheries law enforcement, the administrative oversight of sea areas and specific fisheries resources falls under the purview of the fisheries administrative department of the State Council and its affiliated fisheries supervision and management agencies. Additionally, the adjacent sea areas are managed by the fisheries administrative departments of the people's governments at the provincial level, including provinces, autonomous regions, and municipalities directly under the Central Government.³³ The Bureau of Fisheries, under the Ministry of Agriculture and Rural Affairs of the People's Republic of China, plays a pivotal role. It is tasked with the protection and rational development of fisheries resources, the promotion of healthy aquaculture practices, and the oversight of the processing and circulation of aquatic products. This body also handles significant fishery disputes involving foreign entities, upholds the fisheries rights and interests within the State's jurisdictional seas, oversees the implementation of international fisheries treaties, manages distant water fisheries and fishery ports, and provides guidance on fisheries safety production according to its designated responsibilities (Ministry of Agriculture and Rural Affairs of the People's Republic of China, 2019).

Moreover, the Coast Guard Law of the People's Republic of China grants the Coast Guard authority to independently supervise and inspect maritime fisheries production activities to prevent, halt, and penalize illegal actions at sea.³⁴ The Public Security Administration Punishment Law of the People's Republic of China gives public security organs the power to impose penalties for infractions of fishery laws and regulations. Fisheries law enforcement agencies are encouraged to establish a coordinated law enforcement mechanism with public security, the Coast Guard, and other relevant departments, allowing for joint inspections when deemed necessary.³⁵

4.2.2 Fisheries law enforcement operations

Firstly, the protection of fisheries resources is a key focus. The fisheries administration is responsible for formulating policies and measures for the protection of fisheries resources. It takes action and imposes penalties against illegal fishing, the use of unauthorized fishing tools, and other violations to ensure the sustainable utilization of fisheries resources. Additionally, the fisheries administration conducts comprehensive surveys and assessments of fisheries resources to gain a thorough understanding of their distribution and quantity, providing a scientific basis for sustainable development.

³³ Article 6 of the Fisheries Law of the People's Republic of China.

³⁴ Article 5 of the Law of the People's Republic of China on the People's Armed Police Force Coast Guard.

³⁵ Article 20 of the Interim Measures for the Enforcement of Fishery Law Enforcement.

Secondly, fisheries production management is a critical aspect. The fisheries administration must enhance the registration and management of fishing vessels to ensure their legal operation. It addresses and penalizes illegal activities during fisheries production, such as the unlawful use of restricted fishing areas or violations of fishing bans. Concurrently, the fisheries administration should intensify supervision over the various stages of fisheries production to ensure the safety and quality of the fisheries production process.

Thirdly, fisheries market supervision is crucial. The fisheries administration needs to strengthen the supervision of the fisheries market to combat the production and sale of counterfeit and substandard fish products. It should investigate and address violations involving fish products that do not meet food safety standards, such as those with illegal additives or those exceeding their shelf life. Additionally, the fisheries administration should organize price monitoring in the fisheries market to maintain order and safeguard the interests of fishermen.

Fourthly, the development of fisheries law enforcement forces is essential. The fisheries administration should enhance the training and development of law enforcement personnel to improve their competence and skills. Collaborating with other law enforcement departments is crucial for establishing a synergistic law enforcement effort, thereby improving overall enforcement effectiveness. Concurrently, maintaining effective communication and outreach with fishermen is important to enhance their legal awareness and encourage voluntary compliance with fisheries regulations (Gao, 2012; Fu, 2010).

5 Marine fisheries and judicial practice

Judicial jurisdiction plays a crucial role in upholding the rule of law in the development of marine fisheries. Through the full exercise of judicial jurisdiction, China's courts are empowered to adjudicate disputes related to marine fisheries, effectively ensuring the lawful and equitable protection of maritime fishing rights. This contributes to the healthy development and sustainable management of the industry.

In the sections that follow, various typical judicial cases related to marine fisheries are selected for brief discussion. These cases are drawn from the "Typical Cases of Public Interest Lawsuits on Marine Natural Resources and Ecological Environment Prosecution" published by the Supreme People's Court in 2023 (Supreme People's Court, 2023), and the "Typical Cases of Prosecutorial Authorities Legally Punishing Illegal Fishing Crimes" released by the Supreme People's Procuratorate in 2023 (Supreme People's Procuratorate, 2023).

5.1 Illegal fishing issues in nearshore fisheries

Marine fishing, emerging from and thriving by the water, has historically been a vital means of survival for countless individuals.

With the continuous development of the maritime economy today, marine fisheries resources have become an indispensable asset in contemporary society. However, overfishing poses a significant threat, disrupting fisheries resources and impacting ecological balance. To preserve aquatic biological resources and protect biodiversity, China has established a comprehensive fishing ban system across its four major sea areas and seven key inland river basins. Despite these protective measures, illegal fishing incidents persist.

5.1.1 Civil public interest lawsuit by the third division of the people's procuratorate of Shanghai municipality against Wang Moumou and others for illegal fishing

On July 9, 2020, during the closed fishing season in the East China Sea, Wang Moumou, driven by profit motives, organized nine individuals, including Shen, and operated vessels displaying banners with "2020 Closed Fishing Season Resource Survey Ship." Under the guise of a scientific research mission, they navigated to the waters of the East China Sea, using trawl nets mounted on davits to illegally catch aquatic products. Intentionally deactivating the Beidou navigation system to evade fisheries inspection, they continued their activities until the morning of July 15, 2020, when the vessel, laden with catches, was detained at the dock. Law enforcement authorities seized a total of 17,289 kilograms of catches, including horseshoe crabs, miscellaneous fish, and shrimp.

The Shanghai People's Procuratorate contended that their illegal fishing activities caused significant damage to the fisheries resources and aquatic ecological environment of the East China Sea, resulting in harm to public interests. According to assessments by the Price Certification Center, the wholesale market price of the horseshoe crabs involved in the case was determined to be 1,689,500 yuan. Following a resource damage assessment, direct losses were quantified at 1,689,500 yuan, with restoration costs estimated at 5,068,500 yuan.

The Shanghai Maritime Court concluded that all nine defendants were fully aware that their actions violated closed fishing season regulations, leading to significant damage to the fisheries resources and ecology of the East China Sea, thus constituting joint infringement. The court mandated the defendants to publicly apologize in the media and to jointly compensate 6,758,000 yuan for ecological environmental damage, in addition to paying 4,000 yuan for ecological environmental loss assessment fees. The court upheld all litigation claims by the prosecuting authorities (Supreme People's Court, 2023).

The closed fishing season system in the ocean is of paramount importance for protecting marine biodiversity and ensuring the sustainable utilization of marine fisheries resources. Following the criminal prosecution of the defendants in this case, the prosecuting authorities carried out their legal duties by initiating a civil public interest lawsuit against them, seeking their liability for ecological environmental damage. In accordance with the law, the maritime court determined that both the organizers and participants of the illegal fishing operation jointly bore the responsibility for compensating the consequences of damaging the marine

ecological environment. This represents a stringent crackdown on illegal fishing activities that violate closed fishing season regulations, not only increasing the costs of unlawfulness for the infringers but also serving as a deterrent to potential violators.

In this case, the maritime court, in accordance with the law, supported the prosecuting authorities in initiating the public interest lawsuit concerning marine natural resources and ecological environment, establishing a multi-faceted governance framework. This underscores the judiciary's clear stance and strong determination to protect the marine ecological environment through the strictest regulations and rigorous legal governance. It vividly interprets the commitment to protecting marine ecological resources with principles of "timing restrictions" and "moderation in extraction." This case highlights the critical role of the public interest litigation system in serving and safeguarding the construction of a marine ecological civilization.

However, it is noteworthy that the confiscated fishery products had deteriorated due to prolonged detention. After the criminal judgment was rendered, the public security authorities could only perform harmless disposal of the items. The improper post-seizure handling undoubtedly constituted a waste. The illegal fishing activities caused significant damage to East China Sea fishery resources and aquatic ecosystems. The defendants faced only civil compensation and a public apology, without being held criminally liable (which may have been addressed in separate proceedings). This reflects insufficient punitive severity. Judging from the case information, the specific calculation model for the ecological loss assessment remained undisclosed. The court only cited the price certification conclusions without transparency regarding the assessment methodology.

5.1.2 Criminal attached civil public interest lawsuit by Gaizhou city people's procuratorate of Liaoning province against Wang Moumou and Han Mou for illegal fishing

During the closed fishing season, Wang Moumou and Han Mou operated a fishing vessel within the prohibited fishing zone of the Bohai Sea in Gaizhou City, Liaoning Province, employing trap nets to illegally catch 11,000 kilograms of octopus. As evaluated by the Gaizhou City Development and Reform Bureau, the octopus was valued at 150,300 yuan. In August 2022, the Gaizhou City People's Procuratorate initiated a criminal attached civil public interest lawsuit.

The China Ocean University Shandong Maritime Judicial Appraisal Center assessed the public interest damage and recommended a plan for breeding and release. On October 10, 2022, the Gaizhou City Procuratorate filed a criminal-attached civil public interest lawsuit with the Bayuquan District People's Court, seeking to hold Wang and Han criminally responsible for illegal fishing. The prosecution requested a court order for the two defendants to compensate 616,000 yuan for damages to fishery resources and 20,000 yuan for appraisal fees. Ultimately, the Bayuquan District People's Court ruled that Wang and Han were guilty of illegal fishing, confiscated their illegal gains, and ordered

them to pay 616,000 yuan for fishery resource damage and 20,000 yuan for appraisal fees, earmarked for the restoration of marine ecology and resource damages (Supreme People's Court, 2023).

In recent years, due to overfishing, the marine ecological environment and fishery resources in the Bohai Sea have suffered significant damage, severely impacting the normal growth, reproduction, and replenishment of fish populations in the area. In response to illegal criminal activities causing major losses to the nation by damaging marine aquatic resources, the prosecuting authorities have fully utilized their prosecutorial functions of "criminal prosecution + public interest litigation + marine ecological environment restoration" to hold those engaged in unlawful acts responsible. While the people's court legally imposes criminal responsibilities on the defendants, it also orders them to compensate for the damage to fishery resources, serving as a deterrent to illegal fishing activities.

Following the judgment in this case, to facilitate the timely and effective restoration of the ecological environment and fisheries resources, the people's court and the people's procuratorate, in collaboration with maritime law enforcement, local governments, and relevant departments, conducted breeding and release activities. In line with recommendations from assessment institutions, the compensation funds for fishery resource damage were utilized to purchase brown sole, a species suitable for local marine ecosystems and species propagation, which was then released into the Bohai Sea. This approach to breeding and release aims to restore marine natural resources, exemplifying the practical outcomes of a rehabilitative judicial concept for the recovery of marine fisheries. However, it is noteworthy that the fisheries administration department in this case also bears liability for supervisory negligence. Additionally, the use of restoration funds was not subject to mandatory disclosure of detailed expenditure, failing to meet the "transparency" requirement of good ocean governance. Furthermore, while the stock enhancement plan proposed for ecological restoration was beneficial, it lacked specificity in implementation details.

5.1.3 Case of illegal fishing by Wen Mou (VAN)

Wen Mou (VAN), owner and captain of the vessels "Qng 94600TS" and "Qng 94619TS," engaged in bottom trawl fishing operations in the Lingshui waters on the east side of Hainan Island with 10 foreign crew members in July 2020. The operation spanned from south to north, covering areas near Qionghai and Wenchang, during the closed fishing season in the South China Sea. These actions, which involved the use of prohibited fishing tools within China's territorial waters, led to their interception by maritime police. The People's Procuratorate of Hainan Province, First Division, initiated public prosecution and a criminal attached environmental civil public interest lawsuit against Wen. The Haikou maritime court found Wen guilty of illegal fishing of aquatic products using prohibited tools in a prohibited fishing zone, an offense disrupting the marine ecological environment and balance, and negatively impacting the sustainable utilization of fisheries resources, thereby causing harm to public interests.

Wen was sentenced to a fixed-term imprisonment, with the tools used for the crime and illegal gains confiscated. Additionally, the court ordered compensation for ecological restoration costs. Wen accepted the verdict, making the first-instance judgment legally binding (Supreme People's Court of the People's Republic of China, 2022).

This case illustrates the effective judicial control exercised by Chinese courts over the South China Sea, emphasizing the importance of maritime justice in upholding maritime rights and setting a precedent for legal actions against illegal entry into Chinese waters, fishing in prohibited areas or during closed seasons, and using prohibited tools or methods. It serves as a warning against activities damaging the marine ecological environment, showcasing the role of maritime justice in protecting marine resources and environments, contributing to the construction of ecological civilization, and ensuring sustainable utilization of marine fisheries resources. The Haikou Maritime Court's jurisdiction over crimes harming marine ecological environment resources and its approach to criminal attached civil public interest litigation cases represent a step towards comprehensive reform in maritime trials, integrating criminal and civil justice pursuits.

However, the judgment failed to quantify the specific extent of seabed habitat destruction (e.g., coral reefs, seagrass beds) caused by bottom trawling. It only vaguely determined "ecological balance disruption." Sentencing did not differentiate responsibility between the vessel owner and crew members. The formulation of the stock enhancement plan lacked public consultation. This contradicts the "public participation" element. Additionally, the stock enhancement plan lacked clear implementation standards. These include species selection, release quantity, and monitoring mechanisms. This omission may compromise restoration effectiveness.

5.2 Disputes in foreign-related cases in distant water fisheries

In recent years, the advancement of technology has expanded human utilization and development of marine resources. Distant water fisheries, in particular, have seen rapid growth, resulting in an increase in foreign-related fishery dispute cases. China's engagement in distant water fisheries commenced in 1985, and it has since entered into beneficial fishing collaborations under relevant bilateral fishery cooperation agreements or arrangements with the jurisdictional seas of cooperating states. According to 2022 statistics, China had 177 approved distant water fishing enterprises, operating a total of 2,551 vessels, including 1,498 in the open seas. These vessels operate across various regions, including the Pacific Ocean, Indian Ocean, open seas of the Atlantic Ocean, Antarctic waters, and the jurisdictional seas of cooperating states, achieving an annual output of 2.328 million tons (Government of the People's Republic of China, 2023). This has positioned China as a major and influential player in the global distant water fisheries industry.

The primary disputes in foreign-related fishery cases predominantly concern crew labor contract disputes. However,

other common types of disputes include those related to maritime cargo transportation contracts, ship co-ownership, maritime and commercial disputes, maritime debt rights confirmation disputes, shipbuilding contract disputes, personal injury liability disputes at sea, and ship collision damage liability disputes. The sections that follow provide introductions to selected typical cases.

5.2.1 Series of crew labor contract disputes in the case of the vessel "angelic power"

The vessel "Angelic Power" is owned by the Liberian company Angeliki Dynamis Investment Corporation, registered in the port of Piraeus, Greece, and managed by Panthalassa Maritime Corporation. In mid-January 2021, Panthalassa Maritime Corporation entered into crew employment agreements with several Greek crew members, including Syrianos, and 13 Filipino crew members, including Jayson. In March 2021, due to disputes with external parties, Angeliki Dynamis Investment Corporation abandoned the ship, leading to the detention and subsequent auction of the vessel "Angelic Power" by the Guangzhou Maritime Court.

During the auction process, Captain Syrianos and two other Greek crew members, along with 12 Filipino crew members, filed lawsuits. They requested that Angeliki Dynamis Investment Corporation pay the crew's due wages and other associated costs. Additionally, they sought confirmation that the maritime claims were entitled to maritime liens, ensuring priority reimbursement from the auction proceeds of the vessel "Angelic Power".

The Guangzhou Maritime Court, in its judgment, determined that labor contract relationships were established between the 15 foreign crew members and Angeliki Dynamis Investment Corporation. Accordingly, the applicable laws were specified in the respective crew employment contracts, with Philippine law and Greek law being applied as appropriate. The captain, acting as the representative of the shipowner, confirmed the specific amounts due to the foreign crew members, and the validity of this confirmation was governed by Greek law. Regarding the 15 crew members' requests concerning maritime liens, Chinese law was deemed applicable. The court ruled in favor of the 15 foreign crew members in their claims for labor compensation and other associated matters. Simultaneously, the court confirmed that the aforementioned maritime claims held priority, enabling them to be prioritized for reimbursement from the auction proceeds of the vessel "Angelic Power".

Based on Article 22 of the Maritime Code, crew members' labor remuneration constitutes a first-priority maritime lien. The court confirmed that the foreign crew members' claims could be prioritized for repayment from the auction proceeds of the vessel. This safeguards the rights of vulnerable groups and demonstrates the principle of good ocean governance in achieving substantive justice through law. The court coordinated with foreign affairs departments to repatriate stranded crew members. This reflects the protection of crew members' basic subsistence rights and aligns with the elements of consistency and fairness in good ocean governance. In this case, the court provided online video proxy notarization through the mobile micro-court platform. This enabled foreign crew members to

participate in litigation remotely, enhancing accessibility to justice. However, based on available case information, crew members had limited participation in negotiating the property distribution plan. Additionally, the calculation standards for crew wages and the specific content of Greek and Philippine laws should be more thoroughly explained. Such transparency would strengthen public confidence in the legal application and reinforce governance accountability.

5.2.2 Maersk A/S vs. Baixian Food (Fujian) Co., Ltd. dispute over maritime cargo transportation contract

On August 15, 2020, Maersk A/S, acting as the carrier, shipped frozen squid in containers from Argentina to Mawei Port in Fujian, China, for Baixian Food (Fujian) as the consignee. Owing to COVID-19 quarantine measures for cold-chain goods imported to Mawei Port in Fuzhou initiated in the latter half of 2020, the cargo was offloaded at the transit port of Xiamen on November 6, 2020, and did not arrive at Mawei port until December 21, 2020. This led to a dispute over additional container detention charges incurred during the transit. Maersk A/S initiated legal action against Baixian Food (Fujian) in the Maritime Court of Xiamen, seeking full reimbursement for the incurred costs.

The Xiamen Maritime Court determined that due to COVID-19 prevention and control measures at the destination port, the transportation contract could not proceed as usual. After Maersk A/S securely stored the goods at the nearby port of Xiamen, in line with Article 13 of the "Guiding Opinions of the Supreme People's Court on Properly Handling Civil Cases Related to COVID-19 (III)," it was concluded that Maersk A/S had met its contractual obligations and was not liable for any breach of contract. Nonetheless, Maersk A/S opted to wait until the destination port was equipped to handle unloading before proceeding with the secondary transit.

Considering Maersk A/S incurred additional expenses due to epidemic prevention and control measures, and Baixian Food (Fujian) benefited from the maritime services provided by Maersk A/S, the court, invoking the principle of fairness, ruled that Baixian Food (Fujian) should bear 50% of the container detention charges accrued during the transit at the intermediate port. Consequently, the first-instance judgment mandated Baixian Food (Fujian) to compensate Maersk A/S for half of the detention costs and dismissed the remaining claims of Maersk A/S. Neither party appealed the decision (Supreme People's Court of the People's Republic of China, 2022).

This ruling by the Xiamen Maritime Court represents a judicious application of the fairness principle in allocating the extra performance costs and expenses incurred due to epidemic prevention and control measures equitably between the involved parties. The acceptance of the first-instance judgment by both parties facilitated a favorable societal outcome. The court's decision was lauded for recognizing and supporting the efforts of shipping companies like Maersk A/S, which, despite facing epidemic-related challenges, fulfilled all contractual obligations after awaiting the destination port's readiness for unloading. In the context of the pandemic's extensive impact on the maritime

industry, this verdict serves a constructive purpose by encouraging shipping entities to adhere to their contractual duties and aiding in the recovery of the maritime sector. By fairly apportioning the relevant costs, the judgment harmonizes the interests of both the shipper and the carrier, while legally safeguarding the legitimate rights and interests of import and export businesses. It effectively ensures the continuous and orderly conduct of international trade amid pandemic-induced disruptions.

This case demonstrates the efforts of Chinese judicial authorities to balance the interests of commercial entities during major public health events. Applying Article 6 of the Civil Code (the principle of equity), the court ruled that both parties should share the demurrage costs. This approach avoids placing policy risks solely on the carrier while preventing the consignee from benefiting gratuitously, thereby embodying substantive justice. However, the liability allocation ratio lacks quantifiable justification. The ruling did not adequately consider individual differences between the parties (e.g., contractual terms, risk-bearing capacity). Furthermore, the court's reasoning for selecting a 50 percent apportionment—as opposed to other ratios—remains insufficiently articulated.

5.2.3 Lawsuit of Li Mou against oceanic fishing company - labor contract dispute case

In March 2017, Li Mou entered into a deep-sea fishing labor contract with an oceanic fishing company. During a fishing expedition in the South Pacific, Li Mou suffered a sudden cerebral infarction in November 2018, leading to right-sided hemiplegia while the vessel was about 700 nautical miles from Hawaii. Promptly, the company initiated contacts for emergency procedures and applied for the ship to dock at Hawaii, USA. Five days later, Li was admitted to Queen's Medical Center in Hawaii for treatment and subsequently repatriated to China for further medical care. The company covered all medical expenses, amounting to more than 720,000 yuan.

The plaintiff contended that the physical and mental harm resulting in disability, brought on by 21 months of continuous work in the South Pacific, mandated the defendant, as the employer, to take full responsibility for compensation. In February 2020, Li initiated a lawsuit against the defendant at the Ningbo Maritime Court. Upon reviewing the case, the court concluded that the defendant had met its obligation to provide timely medical attention. It found that the sudden illness and its subsequent effects were due to Li's pre-existing health condition and external factors, not solely the employer's negligence. Consequently, the court, after assessing the situation, determined that 30% of the responsibility should be assigned to the defendant. Given the defendant had already advanced 720,000 yuan for Li's treatment, the court decided no further compensation was necessary (Ningbo Maritime Court, 2022).

Based on the court's ruling in this case, the principle that personal rights take precedence over property rights was upheld. The court actively supported, encouraged, and guided the shipowner to provide proactive medical treatment to crew members who suffered accidental injuries or sudden illnesses. This approach was reflected throughout the dispute resolution

process and outcome. The court fully considered the difficulties in overseas medical treatment and the fact that both parties lacked autonomy in such situations. While protecting the legitimate rights and interests of the crew member, the court sought to reasonably apportion liability percentages. The judgment held the enterprise liable for 30% of the responsibility. However, the reasoning regarding the quantification standards for this specific percentage was insufficiently articulated.

6 Conclusions

The eight elements of the good ocean governance theory provide a theoretical framework for international and national marine fisheries protection through the logics of rule-based constraints, multistakeholder co-governance, and adaptive flexibility. Marine fisheries protection must be grounded in rule-based legal frameworks. It requires a pathway of coordinated law enforcement and judicial oversight, supported by multi-stakeholder co-governance. The ultimate goals are sustainable utilization of fishery resources, maintaining ecosystem health and stability, and sustainable development of the fisheries economy. At the international level, a global governance network is constructed based on rule of law and consensus-building. Nationally, domestic implementation centers on legal compliance and accountability. Together, these levels synergistically advance sustainable fishery resource utilization and marine ecological security. From "single government management" to "multi-dimensional common governance", from "prioritizing resource development" to "prioritizing ecological protection", the application of the theory of good ocean governance in concrete practice is conducive to solving the problems of "tragedy of the commons" and "North-South conflict" in traditional marine fisheries governance. "The application of the theory of good ocean governance in concrete practice is conducive to solving the "tragedy of the commons" and the "North-South conflict" in the traditional marine fisheries governance.

Based on the core elements of good ocean governance theory, an examination of ocean fisheries legislation reveals the following characteristics. At the international level, the legal framework is dominated by soft law supplemented by hard law, failing to move beyond a traditional state-centric approach. Different instruments exhibit significant variations in binding force, leading to uneven enforcement effectiveness. Rights and obligations are unbalanced, and the framework has failed to adapt to emerging challenges like climate change. Domestically, while ocean fisheries protection laws are comprehensive, the coexistence of multiple regulations risks unified guidance but fragmented enforcement. Insufficient attention to diverse regional development needs necessitates stronger coordination. Additionally, the institutional design process lacks positive interaction among multiple stakeholders, resulting in high enforcement pressure and constrained legal effectiveness.

To advance the level of legal governance of marine fisheries, the core elements of good ocean governance need to be incorporated into the legal system in a rational and scientific manner. Understanding the nuances of marine fisheries, tracking their dynamic evolution, and examining the international legal framework for fisheries,

primarily governed by UNCLOS, as well as the domestic legal structures centered on the Fisheries Law, are essential steps.

The goal of fisheries law enforcement is to ensure the sustainable use of fisheries resources, protect the marine ecological environment, maintain order in the fisheries market, and support the growth of the fisheries economy. China's approach to fisheries law enforcement prioritizes the conservation of fisheries resources. The fisheries administration devises policies and measures for this purpose, enforces actions, and levies penalties against illegal fishing activities, the employment of unauthorized fishing gear, and other infractions to guarantee the sustainable exploitation of fisheries resources. Additionally, the management of fisheries production stands as a pivotal component of enforcement activities. This includes the improvement of the registration and management of fishing vessels to certify their lawful operation and the addressing and penalization of illicit activities during fisheries production. Furthermore, the oversight of the fisheries market is of paramount importance. The fisheries administration is tasked with enhancing market supervision to combat the production and sale of counterfeit and substandard fish products. Lastly, there is a focus on augmenting the training and development of law enforcement personnel to boost their expertise and abilities.

Good ocean governance is oriented toward the sustainable development principle, requiring a balance between development and protection. The outcomes of marine fisheries governance must deliver inclusive benefits, emphasizing both ecological protection and fishermen's interests. The utilization of a comprehensive prosecutorial approach, encompassing "criminal prosecution + public interest litigation + marine ecological environment restoration," by prosecuting authorities has been pivotal in holding individuals accountable for illegal acts within marine fisheries. This approach, as illustrated through six typical judicial cases, has not only sought to deter unlawful fishing activities through criminal liability but has also emphasized the restoration of the ecological environment and fishery resources. The maritime courts have played a supportive role in this process, backing the initiation of public interest lawsuits related to marine natural resources and ecological environments. This cooperation establishes a multi-faceted governance framework, highlighting the judiciary's commitment to safeguarding the marine ecological environment with strict regulations and diligent legal oversight. Such actions underscore the vital role of maritime justice in protecting marine natural resources and ecological environments, catering to the requirements of ecological civilization construction, and promoting the sustainable use of marine fisheries resources. Furthermore, this strategy signals a shift towards a comprehensive reform in maritime trials, integrating criminal and civil aspects to achieve justice effectively.

Fisheries law enforcement serves as a critical mechanism for ensuring the orderly production of marine fisheries, aligning with the essential demands for the healthy and sustainable development of this sector. It also plays a crucial role in safeguarding China's maritime rights and interests against infringement. Jurisdiction emerges as a fundamental tool for upholding the rule of law in marine fisheries development. By fully exercising jurisdiction,

Chinese courts can resolve disputes related to marine fisheries, thereby guaranteeing the lawful and equitable protection of marine fishing rights. In conclusion, the enforcement of laws related to marine fisheries governance in China reflects a concerted effort towards enhancing the management and protection of marine resources, which is vital for the country's sustainable development and the global preservation of marine biodiversity.

In the future, with the deepening of global fisheries governance cooperation, the theory of good ocean governance will become further linked with marine fisheries. This will help build a harmonious human-ocean community with a shared future. It provides a Chinese approach to the sustainable development of marine fisheries.

Data availability statement

The original contributions presented in the study are included in the article/supplementary material. Further inquiries can be directed to the corresponding author.

Author contributions

QJ: Writing – original draft, Writing – review & editing. KS: Writing – original draft, Writing – review & editing.

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Funding

The author(s) declare that no financial support was received for the research and/or publication of this article.

Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Generative AI statement

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