Achievements and Experience of the China Coast Guard in Marine Environmental Supervision

Jinlong Feng*

School of Law, Wuzhou University, Wuzhou City; South China Sea Institute, Xiamen University, Xiamen City, China

Abstract: The ocean acts as a blue resource bank that sustains humanity's long-term development, and marine ecological protection stands as a key task to build China into a maritime power and meet the standards of ecological civilization construction. The China Coast Guard (CCG) is an armed force granted unified national responsibilities for safeguarding maritime rights and carrying out law enforcement at sea. After several rounds of institutional adjustments, it has grown into the core law enforcement body for marine environmental oversight within China. This paper first sorts out the CCG's institutional development history and its statutory duties over marine ecological control. It sums up the current results of supervision work from four angles: law enforcement intensity, governance of key sectors, emergency handling capacity, and the rollout of public interest litigation. Four core practical experiences are also summarized: prioritizing legislation, technological backing, multi-party coordination, and cross-border cooperation. From real-world operations, through special law enforcement campaigns and the construction of an integrated land-sea-air supervision network supported by multiple collaborative mechanisms, the CCG has greatly cut down the number of marine environmental violations. Coastal waters, including the Bohai Sea and the South China Sea, have seen obvious ecological improvements, pushing steady upgrades to the overall health of China's marine ecosystems. The country's governance practices also offer viable Chinese approaches for marine environmental management across the globe.

Keywords: China Coast Guard, marine environmental protection, law enforcement and supervision, governance effects, governance experience.

1. INTRODUCTION

Over seventy percent of the Earth's surface is covered by oceans. They form the core part of the planet's life support system and serve as a vital reserve space for the long-term economic and social growth of human societies. Since the 18th National Congress of the Communist Party of China, ecological civilization construction has been incorporated into the Five-sphere Integrated Plan for developing socialism with Chinese characteristics, and the national goal of building a maritime power was formally put forward [1]. The National Conference on Ecological and Environmental Protection held in 2018 officially established Xi Jinping Thought on Ecological Civilization, which sets the core direction for all subsequent marine conservation work [2]. In recent years, China has expanded marine exploitation both deeper and wider, bringing a string of prominent issues to light: ocean dumping, illegal marine sand mining, overfishing, and pollution from marine engineering projects. Marine ecosystems are under mounting pressure, which makes marine environmental supervision more urgent than ever. Maritime law enforcement teams form the organizational foundation for marine environmental governance. How unified and professional these forces are directly shapes the final governance outcomes. For a long time after 1949, China's maritime law enforcement power was split across different government departments, a system widely known in the industry as "five dragons governing the sea". This split structure dragged down law enforcement efficiency and created heavy overlaps in power allocation [3]. Starting in 2013, China carried out two major overhauls of its maritime law enforcement system, eventually forming a framework where the China Coast Guard takes unified charge of all maritime rights protection and law enforcement tasks. Take the East China Sea as an example: the old problem of scattered law enforcement has been largely resolved after institutional reforms, and fishery resources in these waters are bouncing back faster. The Coast Guard Law of the People's Republic of China took effect in 2021, commonly shortened to the Coast Guard Law. The newly revised Marine Environmental Protection Law of the People's Republic of China was fully implemented in 2023. These two pieces of legislation lay solid legal groundwork for all marine environmental supervision work undertaken by coast guard authorities.

Domestic scholars have produced a large body of Chinese and English research papers on the CCG's marine environmental supervision outcomes and practices. Studies focusing on institutional reform trace the full shift of China's maritime forces from fragmentation to integration, analyzing the context and practical value of the two major CCG restructurings in 2013 and 2018. Most researchers agree that the unified law enforcement system effectively solved the long-standing "five dragons governing the sea" problem and markedly boosted overall maritime law

*Address correspondence to this author at the School of Law, Wuzhou University, Wuzhou City; South China Sea Institute, Xiamen University, Xiamen City, China; E-mail: realjinlongfeng@126.com

Received on 19-05-2026 Accepted on 04-07-2026 Published on 13-07-2026

enforcement efficiency. Legal research mostly centers on institutional innovations and implementation paths of the Coast Guard Law. Many papers conduct in-depth analysis on the administrative attributes of coast guard bodies, the scope of their enforcement authority, and related remedy channels. Existing literature generally recognizes that the Coast Guard Law sets a basic framework for maritime law enforcement; however, there is still room to refine procedural rules and restrict discretionary power. Specialized research targeting the CCG's marine environmental oversight mostly sorts out real-world obstacles encountered on the ground: poor coordination between marine-related government bodies, ambiguous procedural rules for certain enforcement steps, and outside interference affecting maritime operations. Corresponding optimization suggestions are provided, and several studies use law enforcement cases from parts of the South China Sea as concrete examples, whose conclusions can guide improvements in other sea areas [4]. While existing research has discussed the CCG's overall institutional framework, existing flaws in marine supervision and relevant improvement ideas to varying degrees, however, two notable shortcomings remain in existing research. First, scholars have yet to conduct a comprehensive review of the real-world outcomes of China Coast Guard's marine environmental supervision. Empirical analyses drawing on up-to-date law enforcement statistics and representative case studies are still insufficient. Second, discussions on intelligent supervision technologies tend to stay at a general level, with little in-depth research on concrete applications such as digital monitoring, big-data-based law enforcement, and AI-assisted regulatory operations. To address these research gaps, this paper makes two key contributions. For one thing, it compiles official authoritative law enforcement figures and benchmark guiding cases accumulated over recent years to deliver a quantitative assessment of the performance of China Coast Guard's marine environmental supervision. For another, it establishes a governance framework covering legislation, technical capacity, cross-department coordination, and international cooperation. Special attention is paid to unpacking the operational logic behind the China Coast Guard's intelligent law enforcement practices.

This study adopts two research methods: theoretical sorting and field investigation. For the theoretical part, we mainly reference valid current laws, including the Coast Guard Law and Marine Environmental Protection Law, to clarify the CCG's statutory responsibilities and authority boundaries in marine environmental supervision. The field research section draws on official enforcement statistics released by competent authorities and typical law enforcement cases published in recent years to objectively assess current supervision effects and sort out replicable governance ideas. The whole paper is split into five parts. The first part is this introduction, explaining the practical research background, research value and existing literature in this field. The second part traces the institutional evolution of the CCG and defines its full scope of marine environmental supervision duties, supported by institutional setup cases of coastal coast guard branches extracted from official documents released after 2020. The third part systematically sorts out the major achievements of the CCG's marine environmental supervision from four separate dimensions. The fourth part extracts four scalable basic practices for marine ecological management summed up from the CCG's past supervision work. The last part delivers the concluding remarks.

2. INSTITUTIONAL DEVELOPMENT AND MARINE ENVIRONMENTAL SUPERVISION DUTIES OF THE CHINA COAST GUARD

2.1. Institutional Development Process of the China Coast Guard

The growth trajectory of the China Coast Guard is tightly linked to adjustments in China's maritime strategies and reforms of marine administrative management systems. Following classification standards widely accepted in existing research, its history can be roughly divided into three main phases.

2.1.1. First Phase: Fragmented Maritime Law Enforcement (1949-2013)

From the founding of New China up to the consolidation of coast guard bodies in 2013, China had no dedicated coast guard agency to handle all maritime law enforcement work. Instead, ocean management tasks were split among separate bodies, including the State Oceanic Administration, fishery bureaus, maritime safety administrations, border public security bureaus and customs authorities—the fragmented model known as "five dragons governing the sea" [5].

The five core maritime supervision teams back then included the China Marine Surveillance Force under the State Oceanic Administration, fishery law enforcement detachments run by the Ministry of Agriculture and Rural Affairs, national maritime safety teams, border coast guard units under the Border Public Security Administration, and anti-smuggling officers under the General Administration of Customs.

In terms of administrative affiliation, these five teams operated under two parallel management systems: some reported vertically to central ministries, while others fell under provincial and municipal

departments, with no cross-jurisdictional oversight between them. Each carried out law enforcement independently.

The five departments collectively covered a full list of supervision duties: safeguarding maritime rights and interests, regulating sea area use, marine environmental protection, marine fishery management, maritime traffic safety oversight, prevention of vessel-sourced pollution, maritime public security, and maritime anti-smuggling work.

The fragmented model worked reasonably well in the early days, when offshore exploitation remained limited and marine violations were relatively uniform in type. But as marine operations kept expanding into deeper open waters, the downsides of the old system gradually became obvious. Different enforcement branches operated in isolation, with massive overlapping institutional functions. Shared resources that required unified planning—such as patrol stations and specialized equipment—were repeatedly built, making it hard to lift overall enforcement efficiency.

Complex cross-regional tasks like cracking down on illegal fishing or responding to sudden marine pollution spills could barely get enough coordinated resources under the split framework. This institutional setup also clashed with China's national push to build a strong maritime power.

2.1.2. Second Phase: Integration and Formation of the Unified Coast Guard (2013-2018)

As China entered a new development era, the State Oceanic Administration underwent restructuring, and the China Coast Guard Bureau was set up under it, opening a new chapter for maritime law enforcement institutional reform [6].

In March 2013, the First Session of the 12th National People's Congress passed the Plan for Institutional Reform and Functional Transformation of the State Council. The plan merged four previously separate maritime law enforcement teams: the China Marine Surveillance Force under the State Oceanic Administration, border coast guard units from the Ministry of Public Security's Border Control Administration, fishery law enforcement detachments under the Ministry of Agriculture and Rural Affairs, and maritime anti-smuggling police under the General Administration of Customs. The restructured State Oceanic Administration fell under the Ministry of Land and Resources of the People's Republic of China.

Its core mandates covered drafting marine development plans, conducting maritime rights protection and law enforcement, supervising sea area utilization, and overseeing marine ecological conservation. Beneath the restructured State Oceanic Administration sat the newly founded China Coast Guard Bureau, which took charge of maritime rights protection while receiving operational guidance from the Ministry of Public Security. The China Coast Guard Bureau was officially established in July 2013, tasked with nationwide maritime rights protection and law enforcement work.

After this round of integration, China's comprehensive marine management and maritime law enforcement systems became far more systematic and logical, marking the arrival of integrated maritime law enforcement. During this phase, the CCG became the primary actor for all on-water law enforcement, yet supporting legal systems failed to keep pace with institutional restructuring. All maritime enforcement work still relied on scattered statutes originally designed for the five separate former departments.

This reform successfully consolidated all scattered maritime law enforcement detachments into a unified system. The integrated teams delivered clear advantages in real-world work such as patrols in foreign-related waters, offshore pollution control, and marine wildlife conservation. Coordination ran much smoother whether defending China's legitimate maritime rights or handling daily marine ecological protection work.

That said, cross-regional joint law enforcement still needed more fine-tuning. Many links within operational workflows remained in need of improvement. The division of powers and responsibilities at management levels had not been fully sorted out, and staffing levels and equipment standards varied widely across administrative tiers and coastal regions. Shortages remained in personnel ratios and specialized gear for open-sea assignments, leaving plenty of room to upgrade the overall capacity of the whole force.

2.1.3. Third Phase: Transfer to the Armed Police Command System (2018-Present)

The third major developmental stage of the CCG began in 2018 and continues to this day, when the whole force was placed under the leadership and command of the Chinese People's Armed Police Force (CAPF). Amid new demands to safeguard national sovereignty, security and maritime rights, China carried out major adjustments to its maritime law enforcement framework. The Plan for Deepening the Reform of Party and State Institutions, released in March 2018, stipulated that the entire coast guard force would be placed under CAPF command, forming the CAPF Coast Guard Corps while retaining the external name China Coast Guard Bureau [7]. In June 2018, the

Standing Committee of the National People's Congress passed the Decision on Empowering the China Coast Guard Bureau to Exercise Maritime Rights Protection and Law Enforcement Powers, granting the CCG Bureau unified authority over all maritime rights protection and law enforcement duties. During this period, the China Coast Guard had no other legal basis to carry out supervision and law enforcement work targeting marine environments, leading to numerous practical hurdles in its daily regulatory operations [8]. Against this backdrop, there was a strong call for the enactment of the Coast Guard Law [9].

On January 22, 2021, the 25th Session of the 13th National People's Congress adopted the Coast Guard Law of the People's Republic of China, which entered into force on February 1, 2021 [10]. As China's first specialized statute fully regulating coast guard work, the Coast Guard Law systematically lays out the CCG's powers and duties, organizational structure, law enforcement procedures and international cooperation mechanisms, covering daily patrols, case handling and cross-border collaboration, while offering guidance for inter-departmental maritime law enforcement coordination. Public official materials show that after the law took effect, the institutionalization and standardization level of the China Coast Guard system rose noticeably.

2.2. Statutory Duties and the Main Content of Marine Environmental Supervision

Current laws, including the Coast Guard Law and the Marine Environmental Protection Law, clearly define the scope of work the China Coast Guard Bureau must carry out for marine ecological conservation. Regular oversight over the legality of marine utilization activities forms a core daily task of the CCG.

Coast guard teams conduct routine patrols and special inspections on marine development projects such as marine engineering construction, offshore waste dumping and submarine cable/pipeline laying, and penalize all illegal marine utilization acts following legal procedures. Supervision covers all waters under China's jurisdiction; authorities do not relax inspection standards for small-scale development projects.

The CCG also holds authority to investigate ecological violations that damage marine protected areas like mangrove and coral reef reserves, or harm rare and endangered aquatic wildlife. Take spotted seal poaching cases in the Bohai and Yellow Sea regions as an example—most of these cross-regional trafficking incidents are fully handled with the CCG taking the lead [11].

When sudden marine pollution accidents break out, the CCG joins emergency response efforts at the earliest possible time and also takes charge of follow-up investigation of pollution incidents. Where substantial marine ecological damage has been caused, the China Coast Guard Bureau may file public interest litigation under relevant rules to claim compensation for ecological harm [12].

Within the full scope of marine environmental protection, the CCG's supervision tasks fall into six main categories:

2.2.1. Regulation of Marine Waste Dumping

This work focuses on full-process oversight of all waste discharged into the ocean. Daily operations verify whether dumping permits are properly implemented. Authorities penalize three main violations: dumping without valid permits, dumping volumes exceeding approved quotas, and waste disposal outside designated dumping zones.

All common dumping materials, such as dredged silt from coastal ports and qualified industrial solid waste, fall under supervision. Inspectors carry out unscheduled spot checks covering every link of dumping operations.

2.2.2. Supervision of Marine Engineering Projects

The supervision scope is quite broad, covering offshore wind farms, offshore oil and gas exploration operations, and all cross-sea bridge construction projects. Authorities conduct regular and unannounced on-site inspections to identify two major categories of violations: starting construction without formal approval documents and operating substandard environmental protection supporting facilities. All such violations are penalized by law.

Offshore wind power cluster projects in the Yangtze River Delta are placed under full-cycle priority supervision from initial project approval through construction to avoid marine ecological damage.

2.2.3. Governance of Marine Sand Mining

Current oversight work mainly targets illegal sand mining activities, which rank high on the rectification priority list. Most coastal cities carry out full-scale inspections covering heavily developed offshore waters, effectively maintaining orderly sea area use and reducing seabed ecological damage caused by mining [13]. Regulating legal marine sand extraction is a vital part of marine ecological protection.

2.2.4. Fishery Resource Conservation and Biodiversity Protection

Local authorities have rolled out many practical measures for fishery stock maintenance and

biodiversity preservation. Special law enforcement patrols are organized during seasonal fishing moratoriums, focusing heavily on illegal fishing, including the use of banned fishing gear and secret operations within no-fishing zones.

Special protection arrangements are in place for rare, endangered aquatic species and their natural habitats. Fixed patrol mechanisms cover coral reef zones in the South China Sea to reduce human disturbance.

2.2.5. Oversight of Marine Protected Areas

Supervision covers officially designated marine nature reserves and marine parks, with dedicated staff conducting regular patrols and law enforcement work. Patrol teams immediately stop ecologically destructive acts, including unauthorized waste dumping, illegal fishing and unauthorized development construction.

Mangrove reserves and nearshore coral reef habitats in southern coastal provinces are listed as key patrol targets, ensuring maximum coverage of all marine zones with high ecological value.

2.2.6. Emergency Response to Marine Environmental Incidents

This is a core practical task within marine ecological protection, covering the full workflow of all marine environmental emergencies from on-site response to post-incident assessment. It deals with accidents such as offshore oil spills and hazardous chemical leaks, covering response, source tracing and ecological damage evaluation for incidents in offshore shipping lanes, coastal ports and coastal aquaculture zones.

After reviewing the CCG's institutional development and all marine environmental matters under its oversight, the following section analyzes the tangible results delivered by the CCG's marine environmental supervision work.

3. ACHIEVEMENTS OF THE CHINA COAST GUARD IN MARINE ENVIRONMENTAL SUPERVISION

3.1. Marine Environmental Violations Effectively Restrained

After full integration of coast guard forces, authorities at all levels kept ramping up law enforcement intensity, forming a supervision model combining routine patrols and special campaigns that creates strong deterrence against all marine environmental violations. Special law enforcement operations serve as the core tool for the CCG's marine oversight, with prominent coordination advantages when tackling major cross-regional and cross-sector illegal cases.

Table 1: Classification and Summary of the Effectiveness of China Coast Guard's Marine Environmental Supervision in Recent Years

Category	Achievements	Key Data
Investigation and Handling of Illegal Cases	Special law enforcement operations are carried out on a regular basis, and illegal activities in key fields have been strongly curbed.	(a) In 2024, over 1,750 cases of various types including illegal sand mining, waste dumping, and fishery violations were investigated and handled. (b) In 2025, 312 marine administrative cases were concluded, with a year-on-year increase of 96%. (c) Illegal sand mining cases in key sea areas dropped by 83.3%; a total of over 8,300 illegal fishing vessels were seized.
Law Enforcement for Marine Biodiversity Conservation	The management and protection of marine protected areas and rare species have been continuously strengthened, and the ecological quality is steadily improving.	(a) The Huangyan Island Protected Area enjoys stable ecology and rich biodiversity. (b) The observation frequency of Indo-Pacific humpback dolphins in the Xiamen Protected Area has increased significantly. (c) In 2024, over 1,200 live corals and more than 12,000 seahorses were confiscated.
Refined Supervision	The supervision of marine engineering and waste dumping has shifted from extensive to precise management, with remarkable results achieved through technological empowerment.	(a) Tianjin Port has achieved full coverage verification of 139 marine engineering projects and 6 dumping areas. (b) The dynamic management model of "one project, one file" has been implemented, and drones have been used to fill the supervision blind spots in the open sea.
Emergency Response Capability	An emergency system with supporting hardware and software has been established, playing a prominent supporting role in the handling of major accidents.	(a) The whole system is equipped with standard oil spill disposal equipment, and coastal emergency material reserve warehouses have been set up. (b) In the "Sanchi" tanker accident, the China Coast Guard participated in the whole process of search and rescue, oil spill prevention and control, and environmental monitoring.
Institutional and Mechanism Innovation	The public interest litigation system has been implemented, forming a closed-loop law enforcement model for ecological restoration.	(a) The first marine ecological public interest litigation case of the national coast guard was concluded, with 1.28 million yuan in restoration funds recovered. (b) Mechanisms for advance enforcement of ecological restoration, deposit supervision, and third-party supervision have been established.

Starting back in 2020, the China Coast Guard Bureau has partnered with the Ministry of Industry and Information Technology, the Ministry of Ecology and Environment, the National Forestry and Grassland Administration and other departments to launch successive years of the Blue Sea special law enforcement campaigns, targeting prominent problems including marine waste dumping, illegal sand mining and destruction of protected areas [14].

During the Blue Sea 2024 campaign, coast guard authorities at all levels inspected marine engineering projects over 5,000 times, verified dumping zones and waste disposal projects more than 1,700 times, and surveyed marine protected areas over 1,600 times. They uncovered more than 250 cases involving illegal sand mining, unauthorized sea use and unlicensed dumping, handed out penalties for over 960 fishery administrative violations, and cracked more than 540 criminal illegal fishing cases.

Coastal provincial and municipal coast guard branches add local inspection items under the national campaign framework, such as targeted investigations into coastal aquaculture pollution and illegal occupation of coastal wetlands. The 2025 campaign was upgraded to Blue Sea Shield 2025, shifting from short-term concentrated rectification to year-round regular implementation, expanding overall enforcement coverage.

Throughout 2025, law enforcement fleets sailed 34,140 vessel sorties and aircraft completed 202 patrol sorties, inspecting 17,514 marine utilization projects in total. A total of 312 marine administrative cases were handled, representing a 96% year-on-year increase from 2024, a clear sign of strengthened enforcement. Violation incident rates in key sea areas dropped noticeably, accompanied by mild growth in tourist numbers at popular coastal scenic spots [15].

Specialized governance in key sectors has delivered major progress. Five years after the Coast Guard Law entered into force, the China Coast Guard Bureau worked with the Supreme People's Procuratorate and the Ministry of Public Security to launch targeted crackdowns on rampant illegal marine sand mining. Authorities adopted multi-pronged measures, including source control, precision targeting, and full-chain comprehensive governance. Recorded illegal sand mining cases in key waters of the Bohai and East China Seas fell by 83.3%, effectively stopping repeated violations and protecting seabed ecosystems as well as shipping channel safety.

Fishery law enforcement work moved forward simultaneously across all waters under China's jurisdiction. Annual seasonal fishing moratorium joint campaigns run with the Ministry of Public Security and the Ministry of Agriculture and Rural Affairs target unregistered fishing vessels and illegal operations by high-powered speedboats. To date, authorities have seized over 8,300 illegal fishing vessels and confiscated more than 8,760 tons of illegal catches, offering strong support for natural fishery stock recovery [16].

3.2. Steady Improvement in Marine Ecological Supervision Quality

3.2.1. Strengthened Regulation of Marine Protected Areas

Coast guard authorities at all levels list marine protected areas as top supervision priorities, stepping up daily patrol frequency and enforcement intensity while maintaining zero tolerance for illegal development within protected zones. Scientifically designated marine protected areas form the fundamental backbone of marine biodiversity conservation.

From the perspective of South China Sea operations, the CCG carries out permanent regular patrols around Huangyan Island and adjacent waters. After Huangyan Island was designated a national nature reserve, coast guard law enforcement shifted to a stronger focus on ecological protection. Patrol staff regularly remove marine garbage and encourage local fishermen to help collect floating debris, while heavily cracking down on destructive fishing methods like electrofishing, poisoning and blasting fish, as well as illegal hunting of endangered aquatic wildlife.

According to the 2025 Survey and Assessment Report on the Ecological Environment of Huangyan Island Waters, the island's ecosystem remains healthy and stable overall, with rich biodiversity, proving remarkable real-world conservation outcomes [17].

The East China Sea supervision sets different priority levels matching the unique features of each protected zone. The Xiamen Coast Guard Bureau designates the Xiamen National Nature Reserve for Rare Marine Species as a core supervision target—this reserve acts as critical habitat for national Class I protected animals, including Chinese white dolphins and amphioxus.

Back in 2021, the bureau handled an illegal dredged material dumping case within the reserve involving 64,700 cubic meters of waste that caused severe damage to Chinese white dolphin habitats. The CCG issued administrative penalties to the violating enterprise and filed parallel ecological public interest

litigation, eventually forcing the responsible party to pay RMB 1.28 million in ecological restoration funds earmarked exclusively for reserve management and rare species protection [18]. After years of systematic restoration, the marine environment has gradually recovered, with sightings of Chinese white dolphins rising significantly during routine patrols.

3.2.2. Positive Progress in Marine Biodiversity Conservation

Coast guard authorities nationwide keep up intensive crackdowns on criminal acts that harm rare and endangered aquatic wildlife. In 2024 alone, coast guard teams across China uncovered over twenty related cases, seizing more than 1,200 live coral colonies and over 12,000 seahorses [19].

In April 2024, the Fourth Direct Bureau of the China Coast Guard intercepted a foreign fishing vessel within China's jurisdictional waters, arresting six suspects and confiscating over 1,200 live corals alongside large quantities of dead coral and protected giant clam products [20]. These cross-border law enforcement operations target the transnational criminal harvesting of rare marine species.

Beyond frontline crackdown work, the CCG collaborates with ecological environment authorities in the Green Shield enhanced supervision initiative for protected areas. Coast guard staff regularly join daily conservation work for mangroves, coral reefs and seagrass beds, supporting steady marine biodiversity recovery.

3.2.3. More Refined Supervision of Marine Engineering and Waste Dumping

As offshore wind power, offshore oil and gas and other marine engineering projects expand rapidly in recent years, coast guard authorities shifted their supervision mindset from extensive random spot checks to targeted precision oversight.

The Tianjin Port area holds a dense cluster of marine engineering projects that bring wide supervision challenges. The Tianjin Coast Guard Bureau developed a dual-track working mechanism of routine oversight plus special inspections tailored to local conditions. Leveraging internet-based off-site supervision ideas, authorities use drone aerial surveys and the national marine ecological supervision management system to cover priority sectors including oil exploration, offshore wind power and marine waste dumping, eliminating as many blind spots as possible. Aerial surveys make up for low-efficiency traditional boarding inspections for far-sea wind farms [21]. During the 2025–2026 special law enforcement campaign, the bureau conducted one-on-one precision inspections for all 139 marine engineering projects and six waste dumping zones within Tianjin Port, completing reviews of nearly 400 marine utilization projects in total. Authorities rolled out a one-file-per-project management system to standardize enforcement archives and enable full-process dynamic tracking of all marine development initiatives [22].

3.3. Gradually Improved Emergency Response Capacity for Marine Environmental Incidents

Marine oil spills and hazardous chemical leaks stand as persistent prominent risks to marine environmental safety. Such incidents strike suddenly and cover wide areas, requiring massive manpower and material resources for remediation; mishandling can lead to long-term irreversible marine ecological damage.

Endowed with natural advantages in rapid maritime mobilization, the China Coast Guard participates year-round in emergency response for all marine environmental accidents, forming an indispensable core component of China's national marine emergency system.

On the institutional side, the coast guard system built comprehensive emergency response protocols dedicated to typical disasters like oil spills, clearly defining tiered response trigger conditions, role division for all staff, and standardized full on-site disposal workflows. In terms of hardware, patrol vessels at all coast guard levels are fitted with specialized oil spill containment, recovery and cleanup equipment. Dedicated emergency material stockpiles have been set up at coastal bases in Shandong and Zhejiang provinces, allowing immediate resource deployment once a marine pollution accident is reported, delivering critical support for resolving many small-scale nearshore pollution incidents.

For capacity building, coast guard teams hold regular special emergency drills and joint practical training with maritime administrations and local environmental bureaus to continuously improve cross-departmental coordination efficiency. Drills simulate oil spills and chemical leaks of different scales to replicate real accident response environments. Years with more frequent drills consistently record higher efficiency when handling actual marine pollution incidents.

After the MV Sanchi collision disaster in 2018, the China Coast Guard immediately dispatched multiple law-enforcement vessels to the accident site to support personnel search and rescue, fire suppression, and oil spill monitoring and containment. Patrols stayed on-site

for consecutive days to conduct monitoring and environmental data collection, providing vital support for follow-up accident resolution and pollution diffusion prevention [23].

Scholar Li Min and co-authors noted in their research that the CCG's round-the-clock maritime patrol capability and fast maneuverability deliver irreplaceable functions across all oil spill emergency stages: pre-incident risk early warning, on-site response during disasters, and post-event source tracing investigations [24].

3.4. Effective Rollout of the Public Interest Litigation System

Traditional administrative penalties have long suffered from a clear imbalance: low violation costs paired with high compliance costs. Fines alone rarely make up for actual ecological environmental harm. The currently effective revised Marine Environmental Protection Law clearly empowers coast guard authorities to file public interest litigation claiming compensation for marine ecological damage, offering a viable legal way to resolve this longstanding issue.

Back in 2022, the Xiamen Coast Guard Bureau concluded the first marine ecological public interest litigation case within the national coast guard system, which carries major reference value for CCG ecological law enforcement [25]. A shipping enterprise illegally dumped roughly 65,000 cubic meters of dredged sediment within the Xiamen National Nature Reserve for Rare Marine Species. The sediment contained large volumes of oil-contaminated bottom sludge, polluting over 100,000 square meters of sea area and directly disrupting habitats for protected species, including Chinese white dolphins and amphioxus.

Since the China Coast Guard is affiliated with the People's Armed Police Force of China and vested with defense and operational functions, there have long been divergent views in China over whether the Coast Guard possesses the standing to act as a plaintiff in public interest litigation. However, given that the China Coast Guard also undertakes statutory environmental protection responsibilities, the view supporting its eligibility has become the mainstream [26]. Accordingly, after issuing an administrative fine of RMB 200,000 to the violating enterprise, the Xiamen Coast Guard Bureau filed environmental civil public interest litigation with the Xiamen Maritime Court under Article 89 of the Marine Environmental Protection Law and relevant Coast Guard Law provisions, demanding compensation of over RMB 1.28 million for ecological restoration expenses. Mediated by the court, the enterprise fully paid the restoration compensation fund, all of which was allocated exclusively to reserve remediation and rare species conservation work. This case set a precedent for the CCG to launch ecological public interest litigation, shifting supervision from one-off fines to full accountability for ecological recovery.

Rules governing marine ecological public interest litigation have since been rolled out nationwide across the entire coast guard system. In 2024, the Xiamen Coast Guard Bureau partnered with local procuratorates and courts to pioneer a remediation restoration assistance mechanism. In a separate case involving illegal dumping of construction waste into coastal waters, the CCG issued administrative penalties while pushing forward advance enforcement procedures for ecological recovery, opening temporary waste storage channels, setting up regulatory accounts for restoration security deposits, and bringing in third-party environmental supervisors to oversee full implementation.

This approach efficiently completed marine ecological remediation while realizing dual goals of waste resource recycling and habitat restoration. Coast guard enforcement branches in many coastal regions now use this replicable operational framework [27].

The China Coast Guard's prominent achievements in marine environmental supervision stem from deep underlying factors, which the following section analyzes to offer reference for other countries.

4. REPLICABLE EXPERIENCE FROM THE CHINA COAST GUARD'S MARINE ENVIRONMENTAL SUPERVISION

4.1. Build a Comprehensive, Systematic Legal Framework

Marine environmental governance involves complex allocation of powers and responsibilities, as well as diverse implementation standards, with the rule of law serving as the core foundational support for all related work. When advancing marine environmental supervision, the China Coast Guard always puts legislation first, gradually filling coverage gaps within the existing legal system and refining law enforcement rules tailored to different scenarios. Recent special provisions addressing offshore pollution discharge and island ecological conservation have been adjusted to fit real enforcement demands, bringing tangible on-the-ground results. All law enforcement operations have clear statutory references, strengthening legal legitimacy for enforcement activities. Yen-Chiang Chang and co-authors hold that China has effectively protected the marine environment via legal instruments in judicial practice [28]. Enacting targeted specialized

legislation clarifies the legal standing of maritime law enforcement authorities. The Coast Guard Law, effective since 2021, forms the foundational statute of the coast guard institutional system. Article 2 explicitly states that the China Coast Guard Bureau uniformly exercises all maritime rights protection and law enforcement duties. Chapter I on Responsibilities itemizes all powers granted to coast guard authorities for marine environmental protection, including inspection authority, administrative penalty power, administrative compulsory power, and the statutory right to initiate public interest litigation for marine ecological damage compensation.

Before this law took effect, environmental law enforcement clauses were scattered across various marine-related regulations. Multiple departments sometimes intervened in nearshore environmental governance at the same time, leading to ambiguous power division and slowing down enforcement progress. The Coast Guard Law institutionally establishes the CCG as the primary maritime law-enforcement authority, [29] resolving the long-standing historical fragmentation and ambiguous power division problems while laying compliant foundations for unified marine environmental law enforcement [30].

Revised supporting legislation enables smooth institutional alignment. The 2023 updated Marine Environmental Protection Law further optimizes China's marine supervision system, clearly defining the CCG's law enforcement powers in marine environmental protection and vesting unified maritime enforcement authority in the CCG. It creates positive institutional synergy with the already implemented Coast Guard Law and reduces regulatory conflicts that hinder cross-sectoral law enforcement collaboration.

The revised statute also strengthens penalties for violations, including marine waste dumping, unapproved marine engineering construction and illegal sand mining—especially unlicensed cross-provincial extraction. It raises fine thresholds and introduces new regulatory tools such as daily cumulative penalties, addressing the historic problem of excessively low violation costs prevalent across coastal regions and providing stronger legal backing for frontline coast guard enforcement.

For example, when handling illegal dredged sediment dumping cases in waters around Jiangsu, Zhejiang and Shanghai now, law enforcement officers can directly invoke corresponding statutory clauses without repeatedly cross-checking disparate laws, boosting coastal communities' recognition of marine environmental law enforcement.

Third, a full set of supporting administrative rules standardizes end-to-end law enforcement workflows. Within the overarching framework of primary laws and regulations, the China Coast Guard Bureau issued a series of supporting administrative provisions and normative documents refining procedural rules for marine environmental law enforcement. Key documents include:

Provisions on Procedures for Coast Guard Institutions Handling Criminal Cases (May 2023)

Trial Discretion Benchmarks for Administrative Penalties on Marine Resource Development and Utilization (October 2023)

Provisions on Procedures for Coast Guard Institutions Handling Criminal Review and Reconsideration Cases (December 2023)

Guidance Catalogue of Maritime Administrative Law Enforcement Matters for Coast Guard Institutions (2024 Edition, March 2024)

Provisions on Administrative Law Enforcement Procedures of Coast Guard Institutions (May 2024)

These documents set precise operational standards covering case filing, investigation, evidence collection and penalty issuance, alongside clear constraints on administrative discretionary power. They minimize arbitrary enforcement risks from an institutional perspective, ensuring all law-enforcement operations follow strict, standardized, impartial and civilized norms [31].

4.2. Construct a Three-Dimensional Intelligent Supervision Network

Sea under national jurisdiction of China span a vast area with complex and variable marine environmental conditions, and Marine environments vary widely, imposing distinct requirements on the China Coast Guard's environmental law enforcement operations, which necessitates expanded adoption of modern technologies [32]. Traditional human patrols easily create regulatory blind spots, make collecting violation evidence difficult, and drive up overall enforcement costs. The China Coast Guard attaches great importance to leveraging technological tools to boost marine environmental supervision, investing heavily in developing a smart coast guard system.

A multi-dimensional integrated supervision network has been built: space-based satellite monitoring for large-scale ocean surveillance; aerial patrols using fixed-wing unmanned aerial vehicles and helicopters; surface law-enforcement vessels for on-site

enforcement; underwater acoustic detection systems and underwater robots for submerged target identification [33]. This three-dimensional framework runs permanently in key regulated waters, including the Zhoushan Fishing Ground and parts of the Nansha Islands, delivering far broader coverage than old-fashioned human patrols and enabling early detection of clues for illegal pollution discharge and transboundary fishing violations.

Space-based monitoring networks supported by operational satellites deploy remote sensing technology to sustain continuous dynamic tracking of extensive marine areas, capturing early warning signals of unauthorized waste dumping, illegal sand mining, and unregulated reclamation. Satellite imagery cross-referenced across time series quickly identifies changes in marine utilization status and detects hidden violations, delivering precise targeting for follow-up maritime law-enforcement operations. Marine regulatory authorities in multiple coastal cities have adopted this technology, vastly expanding monitoring coverage relative to ship-based patrols. Space-based satellite surveillance now delivers near-full coverage of priority regulated waters, including the Bohai and East China Seas.

On the aerial side, drone fleets equipped with high-definition cameras and pollution monitoring modules are widely deployed across coastal regions for routine airborne inspections. Drones respond fast and cover wide areas with relatively low procurement and maintenance costs, enabling high-frequency surveillance of priority waters and development projects. They capture real-time footage of vessel pollution discharge and unauthorized waste dumping while securing admissible evidence to support follow-up law-enforcement actions.

Coast guard branches in Tianjin, Hebei and other coastal provinces have integrated drone patrols into daily enforcement workflows, drastically improving routine supervision efficiency. For instance, comprehensive inspection of coastal construction zones in the Bohai Bay previously required two to three full days of vessel patrols, whereas drone fleets complete full coverage in half a day.

On the water surface, law-enforcement vessel fleets nationwide have undergone equipment upgrades with full installation of marine environmental monitoring hardware, photoelectric evidence collection systems and radar platforms, substantially boosting on-site monitoring and evidence-gathering capacity. The superior speed of law-enforcement vessels enables rapid arrival at emergency incident sites. During past crackdowns on illegal sand mining in nearshore waters of the Yangtze River Delta, boarding officers immediately utilized onboard photoelectric systems to secure evidence while carrying out on-site inspections, sample collection and emergency response all at once.

Coast guard authorities at all tiers have delivered substantial tangible progress in building intelligent law-enforcement platforms in recent years. The operational smart governance platform integrates multi-source monitoring data from satellites, unmanned aerial vehicles, Automatic Identification Systems (AIS), and shore-based video surveillance to enable real-time tracking, intelligent recognition and early warning risk assessment of all maritime targets [34]. In-depth big data analytics allow law-enforcement personnel to accurately identify activity patterns of violating vessels and launch targeted crackdowns, drastically lifting overall law-enforcement efficiency. For example, the Hebei Coast Guard Bureau has integrated shared access to coastal video surveillance resources and the marine ecological digital management platform, accelerating response speeds and cross-departmental collaborative disposal capacity for marine environmental supervision [35]. For instance, Binzhou Coast Guard Bureau of Shandong Province has deployed automated drone docks equipped with 4K ultra-high-definition cameras, multispectral sensors and AI intelligent identification systems. These facilities enable closed-loop operations featuring on-site takeoff, remote control and autonomous cruising, breaking the constraints of time and space and extending law enforcement coverage to blind spots left uncovered by conventional supervision [36]. Overall, by deploying AI-powered integrated platforms, the China Coast Guard efficiently integrates spaceborne, aerial and underwater monitoring equipment. Such technologies expand law enforcement officers' perception capabilities and streamline operational efficiency, allowing largely automated handling of straightforward cases. Some scholars acknowledge that the China Coast Guard has delivered remarkable results in marine environmental supervision through intelligent law enforcement, yet questions remain regarding the legality of digitally obtained evidence [37]. This issue merits thorough consideration, but due to the defined scope of this research, detailed discussion will not be elaborated herein.

4.3. Build Multi-Stakeholder Collaborative Governance Synergy

Marine environmental governance is a comprehensive cross-cutting task requiring coordination across functional departments and administrative tiers. Isolated efforts by the CCG alone cannot deliver full-coverage effective supervision of all jurisdictional waters. Guided by a holistic coordination

philosophy, the China Coast Guard actively develops multi-participatory governance mechanisms, including inter-departmental coordination, central-local joint response, procedural alignment with judicial authorities, and inclusion of social stakeholders. Coastal regions such as the Yangtze River Delta have piloted this operational model, streamlining nearshore pollution investigation work compared to prior fragmented frameworks.

Formalized joint law-enforcement mechanisms underpin inter-departmental collaboration. Article 58 of the Coast Guard Law mandates that coast guard authorities establish formal information-sharing and work coordination mechanisms with relevant functional departments, providing clear legal foundations for cross-sectoral joint operations[1]. The China Coast Guard Bureau has established formal coordination channels with core competent authorities, including the Ministry of Ecology and Environment, the Ministry of Natural Resources, the Ministry of Agriculture and Rural Affairs, and the Ministry of Transport to jointly deploy special law-enforcement campaigns and exchange enforcement intelligence, consolidating unified regulatory synergy.

Collaborative frameworks enable efficient delivery of law-enforcement mandates spanning marine ecological conservation, fishery oversight, and maritime transportation. The multi-year Blue Sea special campaigns exemplify this model, led by the CCG Bureau with participation from multiple functional ministries [38]. Each department leverages its specialized strengths to coordinate unified inspection operations, realizing the operational benefit of "one offshore voyage, multiple compliance audits". This model simultaneously boosts overall law-enforcement efficiency and reduces administrative burdens on marine operators. Regulatory authorities in numerous coastal cities replicate national-level coordination frameworks to standardize local cross-departmental enforcement workflows, indirectly promoting compliant operation of coastal marine industries.

Two formalized cross-regional coordination frameworks have been established: regional sea zone collaboration and inter-provincial joint governance. The three major coast guard branches covering the Beibu Gulf, East China Sea and South China Sea exercise unified dispatch authority over coast guard forces within their respective jurisdictions and regularly organize cross-regional joint law-enforcement operations. This model resolves historic regulatory gaps endemic to segmented supervision, a longstanding critical challenge in transboundary waters between Fujian and Zhejiang and Guangdong and Guangxi provinces.

Coast guard bureaus from adjacent provinces and municipalities have developed formal joint patrols and coordinated case-handling protocols for cross-border marine violations. Authorities conduct joint routine sea patrols, share intelligence during case investigations, and coordinate full-cycle disposal workflows to achieve complete end-to-end regulatory coverage. Cross-border cases involving illegal sand mining and unlicensed fishing immediately activate synchronized collaborative case-handling procedures, eliminating prolonged negotiations over jurisdictional disputes.

Formalized operational mechanisms for case transfer, information exchange and joint supervision of major cases have been established between coast guard authorities and local procuratorates. All criminal cases involving marine ecological destruction are immediately transferred to corresponding judicial authorities to pursue criminal liability for responsible parties. Permanent close collaborative channels connect the CCG with procuratorial and judicial organs to align administrative law enforcement and criminal justice procedures and facilitate cross-departmental judicial coordination [39].

Cooperation with courts centers on advancing public interest litigation, implementing ecological restoration orders, and coordinating compulsory enforcement procedures, covering an extensive scope of activities unified under the core objective of refining the judicial protection system for marine ecosystems. Some scholars argue that establishing a collaborative remedy mechanism involving multiple stakeholders to claim compensation for marine ecological environmental damage constitutes a vital approach to marine environmental protection [40]. In this regard, replicable practical models have been developed across multiple regions. Notably, the Xiamen Coast Guard Bureau, Xiamen Municipal People's Procuratorate and Xiamen Maritime Court jointly established a full-cycle marine environmental protection mechanism integrating maritime law enforcement, procuratorial supervision, judicial trial and ecological restoration, delivering remarkable progress and serving as a benchmark for cross-sectoral judicial collaboration [41].

4.4. Deep Participation in International Collaborative Marine Environmental Supervision

Marine environmental problems are transboundary in nature and never confined to a single country,

[1]Article 58.1 of the Coast Guard Law of the People's Republic of China: Coast guard agencies shall respectively establish information sharing and work cooperation mechanisms with corresponding diplomacy (foreign affairs), public security, natural resources, ecology and environment, transport, fishery and fishery administration, emergency management, customs, and other departments, people's courts, people's procuratorates, and the relevant departments of the armed forces.

making isolated national efforts insufficient to address such complex challenges. While solidly advancing domestic marine patrols and supervision, the China Coast Guard upholds the vision of building a community with a shared future for mankind and actively engages in global marine governance. It has carried out extensive cooperation with certain ASEAN countries, including joint maritime patrols, coordinated emergency responses to offshore oil spills, and joint inspections targeting illegal marine waste dumping. In recent years, international law-enforcement cooperation has expanded across broader fields, deepened in practical dimensions, and improved institutional mechanisms for cross-border collaborative supervision.

The CCG maintains high-level and continuous participation in transnational marine governance cooperation. As a key member of the North Pacific Coast Guard Agencies Forum (NPAF), the CCG attends annual conferences and high-level consultations, conducting regular exchanges and collaborative law-enforcement dialogues with member states, including Canada, Japan, the Republic of Korea, Russia, and the United States. In September 2025, the CCG hosted the 25th NPAF Senior Officials' Meeting in Shanghai, which designated experience sharing on marine ecological environmental protection as a core agenda. The Chinese side presented innovative practical applications of carbon sink law-enforcement mechanisms for marine ecological conservation, reaching preliminary consensus with participating states on deepening marine environmental protection cooperation [42].

Beyond routine diplomatic consultations, the CCG deploys patrol vessels annually to conduct fishery law-enforcement cruises in the high seas of the North Pacific, targeting illegal fishing activities. Joint efforts by member states effectively conserve regional fishery resources and stabilize marine ecosystems. Recent high-seas patrols have detained multiple foreign fishing vessels engaged in irregular operations, substantially curbing rampant illegal fishing in international waters [43].

Transnational maritime law enforcement collaboration serves as a vital practical pathway for China's participation in global marine governance. In recent years, the CCG has signed cooperation memorandums with maritime law-enforcement authorities of nearly ten countries, including Russia, Indonesia, and Peru, and established permanent communication mechanisms with Vietnam, the Republic of Korea, and Malaysia. Practical cooperation projects cover marine ecological conservation, fishery supervision and law enforcement, and maritime emergency rescue [44]. Common collaborative modalities include bilateral joint patrols, joint law-enforcement drills, and specialized professional training exchanges for law-enforcement personnel. Continuous cross-border operational linkages have significantly improved coordination efficiency among national law-enforcement teams. Mature bilateral mechanisms support consistent ecological protection and fishery order maintenance in neighboring waters. For instance, targeted fishery law-enforcement inspections in the Beibu Gulf have achieved efficient coordination through regular China-Vietnam communication channels.

Fulfilling obligations under international agreements constitutes a core component of China's global marine governance participation. In April 2025, China formally acceded to the Port State Measures Agreement (PSMA) – the landmark international treaty targeting illegal, unreported, and unregulated (IUU) fishing. As China's core maritime law-enforcement authority, the CCG has proactively promoted full domestic implementation of the Agreement. Standardized port inspection procedures have been established for major foreign trade ports along the Yellow Sea and the East China Sea. CCG personnel conduct routine port state inspections on foreign fishing vessels docking at Chinese ports and actively participate in the revision and formulation of international marine regulatory rules. China's practical governance experiences provide replicable references for global fishery order maintenance and marine ecological conservation [45].

5. CONCLUSION AND PROSPECT

5.1. Conclusion

Following multiple rounds of institutional optimization and restructuring, the fragmented maritime law-enforcement powers formerly dispersed across different administrative departments have been fully integrated into a unified operational system. This historic transition from fragmented decentralized law enforcement to centralized unified law enforcement has established the CCG as the backbone of China's marine environmental supervision system. Based on a systematic review of institutional reform processes and practical law-enforcement operations, this paper draws the following conclusions.

In terms of practical supervision effectiveness, the CCG sustains stringent year-round law-enforcement intensity and conducts regular targeted rectification campaigns. Prominent maritime violations, including illegal waste dumping, unlicensed marine sand mining, and irregular fishing have been effectively contained. The ecological conditions of key waters such as the

Bohai Sea and Beibu Gulf have maintained a sustained improvement trend, alongside optimized ecological environments in major maritime operation zones. The CCG's marine environmental emergency response capacity has improved annually, enabling timely prevention and control of potential environmental risks and minimizing the spread of ecological hazards. Growing voluntary compliance among marine-related enterprises has reduced communication and enforcement costs. The marine ecological public interest litigation mechanism has evolved from initial vacancy to systematic refinement, ensuring effective implementation of ecological restoration liabilities for responsible parties. The unified coast guard law-enforcement system has demonstrated prominent institutional advantages and delivered remarkable progress in marine environmental governance. In terms of replicable governance experiences accumulated through long-term practical exploration, the CCG has formed a set of proven operational approaches. First, a prioritized and comprehensive legal system provides a clear statutory basis for all law-enforcement activities, with newly formulated maritime enforcement regulations establishing unified adjudication standards for frontline operations. Second, technology-enabled supervision has been fully deployed through a sophisticated offshore-open sea intelligent monitoring system integrating shore-based radars, marine buoys, cruise drones and multi-terminal sensing devices. The system delivers significantly improved identification accuracy for offshore oil spills and illegal waste dumping, with partial equipment capable of synchronous marine meteorological data collection. Third, multi-stakeholder collaborative governance unifies CCG enforcement with oversight from maritime administrations, ecological environment authorities, and coastal public conservation forces, substantially enhancing the disposal efficiency of complex governance challenges that cannot be resolved by single departments. Fourth, alongside steady progress in domestic governance, the CCG actively engages in global marine environmental cooperation, including joint high-seas ecological patrols and cross-border marine environmental monitoring, fully demonstrating China's responsibility as a major country. These governance pathways operate as an integrated and mutually supportive system rather than isolated measures, as evidenced by the highly efficient outcomes of the 2023 joint marine waste clean-up campaign in the East China Sea.

5.2. Prospect

This study has three main limitations. First, the research data are mainly sourced from official public releases, lacking first-hand interview data from frontline law enforcement officers and micro-level operational details. Therefore, this paper fails to thoroughly explore the practical obstacles hindering on-site law enforcement implementation. Second, the analysis focuses on nationwide overall conditions, with insufficient examination of differentiated governance models and regional disparities across various sea areas and coastal provinces. Third, the international comparative dimension remains narrow, and comparative research on the environmental law enforcement frameworks of coast guard agencies in other countries needs further in-depth development.

In light of the above limitations and aligned with the development trajectory of China’s marine governance, future research can be expanded along three lines. To begin with, regional comparative studies can be carried out to analyze disparities and performance gaps among marine supervision models adopted by coast guard bureaus in different coastal provinces. Next, field investigations collecting primary data from frontline practitioners can support research on influencing factors and internal mechanisms shaping law enforcement efficiency. Lastly, international comparative analysis can be deepened to systematically weigh the strengths and weaknesses of environmental law enforcement systems of foreign coast guards, generating more comprehensive international references for institutional improvement in China.

CONFLICT OF INTEREST STATEMENT

This is to declare that there are no financial or non-financial competing interests in this paper.

REFERENCES

[1] Excerpt from Hu Jintao's report delivered at the 18th National Congress of the Communist Party of China: Forging Ahead Confidently along the Path of Socialism with Chinese Characteristics to Complete the Building of a Moderately Prosperous Society in All Respects[N]. People's Daily, 2012-11-09(002).

[2] Research Group of the Institute of Party History and Literature of the CPC Central Committee. Thoroughly Study and Implement Xi Jinping Thought on Ecological Civilization, Advance the Modernization of Harmonious Coexistence between Humanity and Nature through the Construction of a Beautiful China in an All-round Manner — A Study on Volume One of Selected Works of Xi Jinping on Ecological Civilization[N]. People's Daily, 2025-07-29(06).

[3] Bid EG. Farewell to China's "Five Dragons Governing the Sea"[J]. Ocean World 2013; (3): 6-7; Zhaobin P. Interpretation and Restructuring of Maritime Law Enforcement System[J]. Journal of People's Public Security University of China (Social Sciences Edition) 2016; 32(1): 132-137.

[4] Min L, Zhongdang Q, Ming L. Research on the Construction of Emergency Collaborative Governance Capacity of China Coast Guard in Marine Environmental Emergencies under the New Situation — Taking Marine Oil Spill Disposal as an Example[J]. China Emergency Rescue 2023(6): 4-10; Xiumin J, Xiao S. Difficulties and Countermeasures of China Coast Guard's Maritime Administrative Law Enforcement — A Case

Study of China's First Marine Ecological Public Interest Litigation Handled by the Coast Guard[J]. Ocean Development and Management 2024; 41(02): 71-79.

[5] Jintang W. Research on China Coast Guard Development Strategy [M]. Chengdu: Sichuan University Press 2015; 22.

[6] Xianchen H. Research on China Coast Guard Maritime Rights Protection and Law Enforcement[M]. Beijing: People's Public Security University of China Press 2018; 30.

[7] CPC Central Committee Issued the Plan for Deepening the Reform of Party and State Institutions[J]. Research on Ideological and Political Work 2018; (4): 8-19.

[8] Jie W, Yongchao L, Mini Z. Research on the Affiliation of China's Maritime Law Enforcement Agencies[J]. China Soft Science 2015; (9): 8-14.

[9] Yanxuedan Z, Jinxing C. Dilemmas and Solutions of Law Enforcement under the New Supervision Framework for Marine Ecological Environment Protection[J]. Environment and Sustainable Development 2020; 45(4): 115-119; Yongming J. On the Implementation, Impacts and Perfection of China's Coast Guard Law[J]. People's Tribune·Academic Frontier 2021; (22): 124-133.

[10] Xinhua News Agency. The 25th Session of the Standing Committee of the 13th National People's Congress Concludes in Beijing[EB/OL]. (2021-01-22)[2026-05-17]. https://cpc.people.com.cn/n1/2021/0122/c64094-32009268.html.

[11] Yi D. Joint Patrols by Police and Local Authorities Deliver Results, Dalian Spotted Seal Population Rises Steadily[EB/OL]. (2026-04-16)[2026-06-19]. https://www.forestry.gov.cn/lyj/1/dfdt/20260416/667439.html.

[12] Article 12 (5), (6), (7) of the Coast Guard Law of the People's Republic of China; Article 114 (2) of the Marine Environmental Protection Law of the People's Republic of China (2023 Revision).

[13] Wei Z. China Coast Guard Improves the Quality and Efficiency of Law Enforcement for Marine Ecological Environment Protection[N]. Rule of Law Daily, April 29, 2024.

[14] China Coast Guard Bureau. Special Law Enforcement Campaign Blue Sea 2020 on Marine Ecological Protection Launched[EB/OL]. (2020-04-01)[2026-05-18]. https://www.ccg.gov.cn/zhuanxiangxingdong/bihai2020/202405/t20240515_921.html.

[15] China Coast Guard Bureau. Special Law Enforcement Campaign Blue Sea Shield 2025 Concludes Successfully[EB/OL]. (2025-12-03)[2026-06-05]. https://www.ccg.gov.cn/hjyw/202512/t20251203_2884.html.

[16] China Coast Guard Bureau. Five Years since the Implementation of the Coast Guard Law: China Coast Guard Opens New Prospects for Maritime Rights Protection and Law Enforcement [EB/OL].(2026-04-17)[2026-06-10]. https://www.ccg.gov.cn/hjyw/202602/t20260201_2996.html.

[17] Ministry of Ecology and Environment. 2025 Survey and Assessment Report on the Ecological Environment of Huangyan Island Waters[EB/OL]. (2025-11-28)[2026-06-13]. https://www.mee.gov.cn/ywgz/hysthjbh/hystbhhhjzlgl/202511/t20251128_1135124.shtml.

[18] China Coast Guard Bureau. First Marine Ecological Public Interest Litigation Case Handled by Coast Guard Institutions Concluded, Over RMB 1.28 Million in Compensation Paid[EB/OL]. (2022-02-26)[2026-06-15]. https://www.ccg.gov.cn/95110/202405/t20240515_1410.html.

[19] China Coast Guard Bureau. Special Interview on Maritime Law Enforcement Held by China Coast Guard Bureau[EB/OL]. (2025-01-26)[2026-06-14]. https://www.ccg.gov.cn/xwfbh/202501/t20250126_2605.html.

[20] CCTV Network. Over 250 Cases of Illegal Sand Mining and Unauthorized Sea Use Handled by All Levels of Coast Guard in 2024[EB/OL]. (2025-01-20)[2026-06-12]. https://doi.org/10.36893/FSSC.2025.V20I1.001

[21] Chengcheng Z, He L. North China Sea Branch of China Coast Guard: Technology Empowers Building a Solid Barrier for Marine Ecological Security[EB/OL]. Toutiao, (2026-06-07)[2026-06-15]. https://www.toutiao.com/article/7648595337787113999/.

[22] Yanhua H, Yunchao H. Technology Empowers Law Enforcement, Tianjin Coast Guard Fully Safeguards Marine Ecological Environment[EB/OL]. Enorth News, (2025-08-13)[2026-06-15]. https://news.enorth.com.cn/system/2025/08/13/058636317.shtml.

[23] CCTV Network. Unprecedented International Rescue: Full Record of China's Eight-Day Search and Rescue for MV Sanchi[EB/OL]. Jiemian News, (2018-01-21)[2026-06-14]. https://m.jiemian.com/article/1895290.html.

[24] Min L, Zhongdang Q, Ming L. Research on the Construction of Emergency Collaborative Governance Capacity of China Coast Guard in Marine Environmental Emergencies under the New Situation — Taking Marine Oil Spill Disposal as an Example[J]. China Emergency Rescue 2023; (6): 4-10.

[25] Xiumin J, Xiao S. Difficulties and Countermeasures of China Coast Guard's Maritime Administrative Law Enforcement — A Case Study of China's First Marine Ecological Public Interest Litigation Handled by the Coast Guard[J]. Ocean Development and Management 2024; 41(02): 71-79.

[26] Yan W, Tantan Z. Practical Dilemmas and Relief Measures for Marine Environmental Public Interest Litigation under the "Three-in-One" Reform of Maritime Trials: An Empirical Study Based on 282 Judgments of Chinese Courts from 2019 to 2023[J]. Hebei Law Science 2025; 43(2): 183-200.

[27] Xiamen Maritime Court. Typical Ecological Environment Trial Cases of 2021 (IX): Xiamen Coast Guard Bureau v. Shipping Company Marine Ecological Damage Compensation Case [EB/OL].(2022-06-08)[2026-06-09]. http://www.xmhsfy.gov.cn/xwzx/fydt/202206/t20220627_247451.htm.

[28] Chang Y-C, Jian A, Zhao X. China's Legal Governance Approaches toward Safeguarding Its Maritime Rights and Interests[J]. PACIFIC FOCUS 2024; 39(2): 276-302. https://doi.org/10.1111/pafo.12261

[29] Limei Y, Jie H. Legal Interpretation of China Coast Guard Bureau from the Perspective of the Coast Guard Law of the People's Republic of China [J]. China Journal of Maritime Law 2021; 32(4): 65-74.

[30] Gang T. Legislative Review and Implementation Prospect of the Coast Guard Law of the People's Republic of China[J]. Journal of Politics and Law 2021; 38(3): 119-128.

[31] Guo JL, Fu SJ, Shi YW. New developments in the administrative law enforcement of CCG: from the perspective of the implementation of CGP[J]. Frontiers in Marine Science 2025; 12: 1682235. https://doi.org/10.3389/fmars.2025.1682235

[32] Zhongdang Q, Min L, Yongyuan Z. Analysis on Impacts of Seabed Topographic and Geomorphic Features on the China Coast Guard's Maritime Rights Protection and Law Enforcement[J]. China Water Transport 2024; (11): 109-111.

[33] Yulin R. China Coast Guard Bureau: Build Solid Marine Ecological Protection Lines, Strengthen Maritime Supervision and Rectification[EB/OL]. (2025-06-25)[2026-05-10]. https://www.sohu.com/a/907895498_121443915.

[34] Military S. Special Interview on Maritime Law Enforcement Held by China Coast Guard Bureau[EB/OL]. (2026-01-30)[2026-06-11]. https://mil.sina.cn/2026-01-30/detail-inhkakfp0591846.d.html?vt=4.

[35] Chengcheng Z, He L. North China Sea Branch of China Coast Guard: Technology Empowers Building a Solid Barrier for Marine Ecological Security[EB/OL]. (2026-06-07)[2026-06-12]. https://www.stdaily.com/web/gdxw/2026-06/07/content_528786.html.

[36] Jianguo L, Hongbin L, Qingquan W. Eyes Over Sea and Sky, Intelligent Governance for Peaceful Waters — Binzhou Coast Guard Bureau Sets a New Benchmark for Maritime Law Enforcement[EB/OL]. (2026-07-09)[2026-07-08]. http://www.chinareports.org.cn/index/news/108039.html.

[37] Wang W. Innovative strategies and forward thinking on China's digital maritime law enforcement[J]. Marine Policy 2024; 169. https://doi.org/10.1016/j.marpol.2024.106369

[38] China Coast Guard Bureau. China Coast Guard's Law Enforcement Capacity for Marine Ecological Protection

Keeps Improving[EB/OL]. (2022-06-24)[2026-06-16]. https://www.ccg.gov.cn/xwfbh/202405/t20240515_190.html.

[39] Ninger S, Yuchen S. 2022 Report on China's Maritime Law Enforcement and Maritime Rights Protection [M]. Beijing: Social Sciences Academic Press 2025; 256-257.

[40] Hong M. Multiple Subjects and Their Linkage Mechanism in Judicial Protection of Marine Environment[J]. Journal of Zhejiang Ocean University (Humanities Edition) 2020; 37(1): 1-8.

[41] Yu G, Jiajun W. Xiamen Coast Guard Patrols Seas and Guards Shores, Making Blue Sea Clearer, Shores Greener and Scenery More Beautiful[EB/OL]. (2026-06-03) [2026-06-01]. https://m.tech.china.com/digi/articles/20260603/202606031885011.html.

[42] China Coast Guard Bureau. China Coast Guard Bureau Successfully Hosts the 25th NPAF Senior Officials' Meeting[EB/OL]. (2025-09-26)[2026-06-11]. https://www.ccg.gov.cn/gjhz/202509/t20250926_2847.html.

[43] Peng G. China Coast Guard Fleet Sets Sail for North Pacific High Seas Fishery Law Enforcement Patrol[EB/OL]. (2025-09-10) [2026-06-08]. https://news.qq.com/rain/a/20250910A05ZB900.

[44] China Coast Guard Bureau. Five Years since the Implementation of the Coast Guard Law: China Coast Guard Opens New Prospects for Maritime Rights Protection and Law Enforcement [EB/OL].(2026-04-17)[2026-06-11]. https://www.ccg.gov.cn/hjyw/202602/t20260201_2996.html.

[45] Zhang Q. China's accession to the port state measures agreement: contributions to conservation of marine biological resources, potential challenges and solutions [J]. Frontiers in Marine Science 2026; 13: 168361.