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Daily Penalty System under Revision of the Marine Environment Protection Law in China: Review and Prospect

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Abstract: The strictness of legal liability for the marine environment protects the marine space of China. Designed to impose the most severe punishment for polluting marine environmental violations, the use of a daily penalty system in maritime legislation has been developed from scratch and from the national to the local levels. Based on Article 73 of *The Marine Environment Protection Law*, the introduced factors, application, and innovative regulations of the daily penalty system are also hereby discussed. Although substantial progress has been made, the daily penalty system still faces two major obstacles, i.e., shortcomings in *The Marine Environment Protection Law* and the imperfection in the marine supporting laws, regulations, and local legislation. To this end, to provide an effective guarantee for marine administrative law enforcement and fundamentally solve the problem of the low law-breaking cost, the liability design of the daily penalty system should be improved by expanding the application scope, increasing the daily fine quota, and formulating specific applicable standards adaptable to the marine environment. In this case, a reference can also be provided for the revision of *The Marine Environment Protection Law* in China. Additionally, it is also suggested to enhance the relevant provisions of marine supporting laws, regulations, and local legislation.

Keywords: China; *Marine Environment Protection Law (MEPL)*; daily penalty system (DPS); realistic obstacles; future proposals



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1. Introduction

Covering 70% of the earth's surface, the ocean is the largest biosphere on the planet, also home to as much as 80% of all life [1]. As one of the ecosystems most affected by human activities [2], the marine system is exposed to increasingly severe threats (i.e., climate change [3], marine pollution [4], ocean acidification [5], deep-sea mining [6], etc.) that damage its health and balance. The effectiveness of marine environmental protection depends largely on the perfection of laws [7].

In 2011, the shocking ConocoPhillips oil spill occurred in China. The accident polluted a total area of over 5500 km², taking up 7% of the entire Bohai Sea area, which caused economic losses of RMB (abbreviation of Chinese currency name) 1.3 billion, and made it the worst oil spill in China in 40 years [8]. ConocoPhillips finally paid more than RMB 2 billion, including a total amount of administrative fines, administrative coordination compensation, and civil coordination. Among the overall fines, however, the administrative penalty was only RMB 200,000. A similar oil spill in the Gulf of Mexico in 2010 resulted in a fine of USD 20.8 billion (RMB 140 billion, according to the exchange rate of RMB to USD in 2010, USD 1 was about RMB 6.7704) [9]. The disparity in fines was mainly attributed to different legal punishments for oil pollution accidents between China and U.S. *The 1990 Oil Pollution Act* in the U.S. had long stipulated a civil penalty of no more than USD 25,000 (RMB 160,000 in 2010) per day. If the responsible enterprise was found to have gross negligence, intent, or fraud, the civil compensation limit of USD 75 million (RMB 500 million in 2010) stipulated by the Act would be abolished. However, the Chinese legal and regulatory system failed to

effectively protect the marine environment, especially the legal liability stipulated in the MEPL at that time. As the highest level of law in the marine management area, Article 91 of MEPL (1999 revision) regulated that the amount of administrative fines shall not exceed RMB 300,000 for violations that cause pollution accidents to the marine environment. That meant the costs of fines imposed on accidents causing marine environmental pollution were no more than RMB 300,000. In comparison, the illegal cost in China was too low for marine environmental pollution, failing to effectively crack down on marine violations. All sectors of society called for the amendment of MEPL to strengthen the punishment of polluting marine environment violations. Notably, the low illegal costs mentioned in this research referred to the low costs of fines, which indicated the low statutory cost of administrative fines for unlawfully polluting the marine environment. Direct costs and opportunity costs were not taken into account here. The former included raw materials and machines purchased for illegally discharging pollutants, fees paid for identifying pollution discharge points, etc. At the same time, the latter was an opportunity actually incurred by businesses for engaging in illegal pollution discharge.

Different from China, the international community has early found a solution to the issue of the low costs of fines for illegal behaviors related to continuous environmental violations. The famous view is the “rational polluter model” based on the deterrence theory, which allows enterprises to choose their environmental behaviors in accordance with the cost-effect analysis of law-abiding/law-breaking [10]. Previously, Charles Garlow & Jay Ryan pointed out that the ability to prevent pollution relied on a precondition that “illegal costs should be higher than compliance costs.” This indicates that it is much more economical to comply with environmental regulations than to pay fines for illegal behaviors [11]. DPS’s logic is to increase the illegal costs for continuous environmental violations by imposing consecutive economic fines to achieve effective deterrence and restrain illegal behaviors. Patricia Lindauer predicted that legal provisions, such as a “daily penalty” would be added in future legislation [12].

In order to address the issue of the low costs of fines for illegal behaviors related to marine environment polluting, the 24th session of the 12th Standing Committee of the National People’s Congress (NPCSC) deliberated and approved the draft amendment to the MEPL on 7 November 2016. This amendment introduced the DPS and canceled the ceiling of a fine at RMB 300,000. DPS takes a “day” as a punishment unit and continuously accumulates fines according to the number of days of refusing to correct the illegal pollution discharge behavior. In this case, fines are tied to the duration of the violation. The longer the illegal time is, the higher the penalty amount will be. Unlike the environmental licensing system established to prevent environmental damage before it occurs, DPS should be the ex-post resort in an environmental protection system, considered punitive measures. The design of DPS increases the cost of illegally polluting emissions by consecutive daily fines. Besides, DPS results in an effective psychological deterrence and threat of high cost for noncompliance by imposing strict economic penalties, which encourages enterprises to rectify their violations and avoid “high fines.”

After introducing the DPS, China effectively solves marine environmental pollution. China Coast Guard, jointly with the Ministry of Natural Resources, Ecology and Environment, Transport, carried out the “Blue Sea 2021” special law enforcement action for marine ecological environment protection in coastal provinces, autonomous regions, and municipalities directly under the central government. This action strictly cracked down on all kinds of violations of marine pollution and ecological destruction. Coast guard law enforcement agencies at all levels seized 438 cases involving sea sand violations, investigated and punished 57 cases of dumping wastes, dealt with 573 cases of constructing marine engineering without an environmental impact assessment and illegally excavating sea sand and destroying the island, and imposed a total sum of administrative fines of RMB 23.8 million [13]. However, China still faces the challenges of a difficult marine ecological environment situation, such as constant serious marine environmental pollution, improvement effectiveness of water quality in unstable offshore areas, pollution rebound in some

bays and estuaries, marine garbage pollution affecting the happiness of residents dwelling closing to the sea, and frequent occurrence of oil spill accidents at sea [14]. From the original intention of “strict enforcement,” DPS is far from enough for a thorough response to protect the marine environment, which indicates the necessity of improving the corresponding provisions. For example, the DPS in the MEPL only applies to the four situations of polluting marine violations, without covering all violations of polluting marine or being extended to other marine ecological protection targeting issues such as IUU fishing, overfishing, over-exploitation of marine resources and marine conservation, etc.

However, current research mainly focuses on two categories related to marine environmental protection in China, i.e., the macro-analysis of MEPL that introduces its historical development, shortcomings, and opinions and suggestions for future revision [15,16], as well as analysis of some marine pollution prevention problems that provides suggestions for the improvement under the revision background of MEPL [17,18]. DPS has been rarely mentioned in the study of maritime administrative penalties, and the content is relatively concise and ambiguous [19]. As of yet, there is no research specifically investigating the DPS in the MEPL. Then, problems arise concerning the reason for and the approach of the MEPL establishing the DPS, innovations of the DPS in the MEPL, etc. The key issue is whether the DPS established by the MEPL works well for the effective remediation of the marine environment. If not, the focus will be placed on obstacles in implementation to be found and solved. To this end, this article addresses the problems of the upcoming MEPL revision and formulates a reasonable design of DPS suitable for the marine law enforcement system. After all, “a sound legal system of marine environmental protection is an important prerequisite for orderly promotion of marine comprehensive utilization and sustainable development” [20]. Notably, the MEPL has started to prepare the related work of a new revision in 2022.

Herein, a normative and comparative analysis is mainly applied. Under the normative analysis approach, this research centers on Article 73 of the MEPL, the top-level marine legislation of China, and macroscopically reviews the DPS provisions. Then, it microscopically carries out an in-depth analysis of specific norms of the DPS in local marine protection legislation. Furthermore, a comparative analysis is also used. In addition to a comparison with the foreign legislative experiences, an internal comparative analysis is carried out, and the DPS is explored and compared with other environmental legislation at the same level and between local marine legislation. These discussions will have great reference values for the improvement of DPS in the future.

The revision of the MEPL is hereby taken as the research background. First, the legislative process of China’s MEPL is summarized, the reasons for the revisions are analyzed, and the origin of DPS is investigated. Second, focusing on Article 73 of MEPL, it analyzes the introduced factors, applications, and innovations of DPS. Third, the progress and obstacles to the implementation of DPS in maritime law enforcement are further discussed. Finally, it is proposed that the design of DPS should be improved, and corresponding suggestions should be provided.

2. The Revision Background of the MEPL

After years of planning, China’s marine governance system has experienced a development process of being continuously strengthened. Since the promulgation of the MEPL in 1982, a series of marine governance policy documents, including laws, administrative regulations, department rules, local governance rules, normative documents, national planning outlines, and notices, have been issued. Meanwhile, the State Council (SC), as the Central People’s Government of China, has formulated a five-year plan for marine economic development. The development goals and directions of the marine environmental governance policies are similar during the same planning period [21]. Against such a background, this paper integrates these policies and takes the five-year plan for marine economic development as the node, which can be roughly divided into six stages (see Table 1). Obviously, the marine governance system in China is a huge and complex project with

some progress, such as the diversity of participants and policy tools and the direction from ex-post control to ex-ante control, especially the proposal of the green priority principle.

Table 1. Evolution history of China’s marine environmental governance policy.

Stage	Progress	Characteristics
1982–2000	Germination	Ex-post control (pollution control); Single policy tool (administrative means)
2001–2005 (The 10th Five-Year Plan)	Establishment	Shifted to ex-ante control (dynamic monitoring); Increased policy tools (economy means)
2006–2010 (The 11th Five-Year Plan)	Steady advancement	Expanded governance scope; Increased policy tools (legal means)
2011–2015 (The 12th Five-Year Plan)	Deepening adjustment	Ex-ante control (risk prevention and control); Diversity of policy tools
2016–2020 (The 13th Five-Year Plan)	Strategic development	Coordinated land and marine; Diversity of participants
2021–2025 (The 14th Five-Year Plan)	Strategic upgrading	Regional coordinated development; Green low carbon development

Note: the characteristics from the first stage to the fifth stage refer to the article *Evolution of Marine Environmental Governance Policy in China* published in the journal of Sustainability [21].

China’s marine rule of law started relatively late. After a long period of development and accumulation, China has formed a marine ecological environmental legal system. As a whole, the developing history of this legal system can be divided into four stages:

- (1) Founding stage (before 1982): China had no formal marine law. The legislative level of marine environmental management was limited to administrative regulations and rules issued by the SC and its Departments.
- (2) Rapidly-developing stage (1982–1999): MEPL, as the first marine law formulated by the NPCSC, appeared, opening an era of China’s marine rule of law. Limited by the times and insufficient legislative experience, the content of the law was restricted to pollution prevention.
- (3) Revision-improving stage (1999–2017): MEPL was revised many times. A series of supporting regulations were issued by the SC and its Departments. Some local legislations were established by the Local People’s Congress and its Standing Committee. The above finally constructed the basic framework of China’s marine ecological environment protection legal system. Marine ecological protection began to be taken into consideration.
- (4) Deeply-promoting stage (2017 to present): The marine legislation aims to further deepen marine pollution prevention and control as well as marine ecological protection. The MEPL is about to be exposed to a new round of revision.

2.1. Legislative History of the MEPL

As a comprehensive law regulating the marine environment, the MEPL offers a sufficient legal basis for marine environmental protection and provides general guidance for marine-concentrated legislation. Promulgated in 1982, the MEPL has been revised once and amended three times, having been implemented for 40 years. The focus of MEPL has shifted from preventing and controlling marine pollution to protecting the marine ecological environment [22]. It has occupied a stable core position in the legal system of the marine ecological environment. The MEPL of 1982 was completely a law on marine pollution prevention and control and established the keynote of China’s MEPL, mainly with pollution prevention and control. Two new chapters have been added to the MEPL of 1999, and almost all provisions of the whole law have been modified, with marine ecological protection starting to be taken into account. The 2013 MEPL only revised Articles 43, 54,

and 80. The 2016 MEPL amended 19 articles, among which, Article 73 is about the daily penalty. The 2017 MEPL just modified the two Articles 30 and 77 (see Table 2).

Table 2. Legislative history of the MEPL in China.

Version	Total Number of Chapters and Articles	Chapters and Articles on Pollution Prevention and Control	Chapters and Articles on Ecological Protection	Chapters and Articles on Legal Liability	Number of Revised Terms/Proportion in the Total	Highlights
In 1982, (Formulation)	8 Chapters 48 Articles	5 Chapters 35 Articles	0	1 Chapter 4 Articles		The first professional marine environmental protection law, “pollution prevention and control law.”
In 1999, (Revision)	10 Chapters 98 Articles	5 Chapters 44 Articles	1 Chapter 9 Articles	1 Chapter 22 Articles	Two new chapters/ above 95%	The revision rate exceeds 95%, with two special chapters of “Supervision and Control over the Marine Environment” and “Marine Ecological Protection” added
In 2013, (Amendment)	10 Chapters 98 Articles	5 Chapters 44 Articles	1 Chapter 9 Articles	1 Chapter 22 Articles	3/3%	“Minor Repair”: implement the reform results of administrative examination and approval in the same year
In 2016, (Amendment)	10 Chapters 97 Articles	5 Chapters 44 Articles	1 Chapter 9 Articles	1 Chapter 21 Articles	19/19.6%	“Medium Repair”: establish two basic systems of ecological protection red lines and marine ecological compensation; cancel the upper limit of RMB 300,000 fines and increase the daily penalty; advance the reform of the administrative examination and approval system
In 2017, (Amendment)	10 Chapters 97 Articles	5 Chapters 44 Articles	1 Chapter 9 Articles	1 Chapter 21 Articles	2/2.1%	“Minor Repair”: modify the relevant provisions on the setting of sewage outlet into the sea

Source: Created in this research.

2.2. Reasons and Processes for Starting a New Revision of MEPL

The initiative to start a new revision of MEPL was driven by the 2018 supervision and inspection of the enforcement inspection team of the NPCSC on the implementation of MEPL. The inspection results were not optimistic. There continued to be widespread calls for the urgent revision of MEPL, which attracted the attention of the central government of China. Another important reason was the institutional reform of the SC in 2018. The SC, the Central People’s Government, is the highest organ of state administration in China. On March 13th, 2018, the fourth plenary session of the first session of the 13th National People’s Congress (NPC) resolved that according to *The SC’s Proposal for Reviewing the Reform Scheme of the SC’s Institutions*, the State Oceanic Administration (SOA) was no longer retained [23]. The SOA was originally the state oceanic administrative department responsible for the supervision and control over the marine environment, survey organization, surveillance, supervision, assessment, and scientific research of the marine environment. After the 2018 reforms, its responsibilities have been merged into the newly-established Ministry of Natural Resources and the Ministry of Ecology and Environment. The former is responsible for marine economy and planning, island development and utilization, marine rights and interests protection. It sets the Marine Strategic Planning and Economics Department, Sea Area and Island Management Department, and Marine Early Warning and Monitoring Department, affording marine integrated management tasks. Whereas the latter is recognized as the competent department for marine environment management and protection, which sets the Marine Ecological Environment Department, and is responsible for national

marine ecological environment protection and supervision. The reform has changed the marine environmental protection and management mechanism in China from “integrated management” to “decentralized management” [24]. The central government centralizes the functional departments of marine affairs, and marine management and law enforcement are scattered across multiple departments. This institutional reform has re-divided the responsibilities of marine administrative departments and should be translated into legal safeguards in a timely manner, thus indicating the necessity of amending the MEPL [25].

For the aforementioned reasons, the report of the NPCSC’s inspection on the implementation of the MEPL on 24 December 2018 clearly proposed to protect the marine ecological environment with the strictest legal system and immediately initiate the revision process of the MEPL. On 28 October 2020, the 27th plenary meeting of the Environmental and Resources Protection Committee (ERPC) of the NPC considered that the bill on the MEPL was indeed necessary for legislation and suggested incorporating it into the annual legislative work plan of the NPCSC. The ERPC held a symposium on the revision of the MEPL in March 2021 and performed a “start work” on the revision of the MEPL in December 2021. The ERPC followed the opinions and suggestions of relevant departments of the SC and made arrangements for the revision [26]. On 11 April 2022, the NPCSC listed the revision of MEPL as a preparatory deliberation item in *The 2022 Legislative Work Plan* [27].

3. The Origin of DPS

Given that the development of DPS in foreign countries occurred quite early, it has now reached a mature state. At present, there are three types of DPS abroad, i.e., “order penalty,” “enforcement penalty,” and “criminal penalty,” respectively. The first imposes daily cumulative penalties from the occurrence of the violation to the date of correction, represented by the U.S. As early as the 1970s, the fine per day is expressly stipulated by several environmental acts such as *The Clean Air Act of 1970*, *The Toxic Substances Control Act of 1976*, etc. The second imposes a penalty and order correction at the beginning and then initiates the daily continuous penalties if the review finds that the violation is still not corrected, which was regulated by *The Air Pollution Prevention and Control Act* (1981) in India. The third is “day fines” in the criminal justice system, where the court adjusts the size of the fine to both the severity of the offense and the wealth of the offender. The concept of day fines was first introduced in Finland in 1921, followed by other countries in Europe. Half of all Europe countries apply day fines into practice [28]. The most successful is Germany, where more than 80% of criminal sanctions are day fines, and besides environmental offenses, day fines are widely applicable for theft, fraud, forgery, and drug offense.

DPS in China first appeared in the local legislation. *Chongqing Municipal Environmental Protection Ordinance* (2007 Revision) was the first to put the DPS into effect. *Shenzhen Special Economic Zone Environmental Protection Regulation* (2009 Revision) was the second to adopt the DPS. One year following the implementation of DPS in Shenzhen City, the rectification rate of enterprises facing environmental violations had increased by 30%. In Chongqing City, the voluntary rectification rate of enterprises raised from 4.8% in 2007 to 95.5% in 2014, following seven years of implementation [29]. Further, the concept of DPS has been successively adopted for the environmental regulations in Hebei, Ningxia, and other regions. However, considering the lack of the superior law’s authorization, the DPS provisions differed in different regions and became “zombie regulations” [30].

Fortunately, encouraged by the successful experiences of local legislation, the central authorities began to emphasize and discuss the introduction of DPS. After going through several processes of the initial proposal, intermediate deletion, multiple deliberations, and finally into the law, the DPS was clearly defined in *The Environmental Protection Law* (EPL) of the People’s Republic of China in 2014. The DPS formally become a national legal responsibility. Article 59 of EPL stipulates the DPS clause as follows: where any enterprise, public institution, or other business is fined and ordered to make corrections for illegally discharging pollutants but refuses to do so, the administrative agency legally making the punishment decision may impose continuous fines on it in the amount of the original fine

for each day from the next day after it is ordered to make corrections [31]. Obviously, in China, one correction opportunity is allowed before starting the DPS. The forms of ordered correction include ceasing the violations, stopping construction, production, or use as ordered, dismantling and undertaking treatment within a prescribed time limit, and any other specific form of administrative order as prescribed in any law, regulation, or rule. If the lawbreakers do correct this, they shall not be imposed consecutive fines per day. In the same year, the Ministry of Environmental Protection (dissolved) deliberated and adopted *The Measures for the Implementation by Competent Environmental Protection Departments of Consecutive Daily Penalties* (hereinafter referred to as *Daily Penalties Implementation Measures*), standardizing the application scope, implementation procedures, methods of calculating penalties, and other specific contents. Article 5 of *Daily Penalties Implementation Measures* regulated five types of illegally polluting discharge violations applicable to the DPS, including (1) discharging pollutants beyond the national or local pollutant discharge standards or the total discharge volume control indicators of key pollutants; (2) illegally discharging pollutants by means to avoid supervision; (3) discharging pollutants as prohibited by laws and regulations; (4) illegally dumping hazardous wastes; and (5) other acts as illegally discharging pollutants [32]. The 2014 EPL and *Daily Penalties Implementation Measures* provide the legal basis and specific guidelines for other environmental laws and local regulations and empower the local regulations to increase the types of illegal acts subject to continuous daily fines based on the actual needs of environmental protection. For example, the DPS was introduced in the 2016 MEPL, 2015 *Atmospheric Pollution Prevention and Control Law* (APPCL), and 2017 *Water Pollution Prevention and Control Law* (WPPCL), respectively.

4. The DPS Provisions of MEPL

4.1. Factors of Introducing DPS Provisions

The incorporation of DPS into the MEPL is triggered by multiple complex factors inseparable from three aspects: the political requirement, scientific productivity, and legal support. First, the political factor refers to the positive response to legislative requirements of marine ecological civilization [33]. Marine ecological civilization is an essential part of China's ecological civilization construction, also a significant content of developing socialism with Chinese characteristics in accordance with the actual situation of China featuring distinctive Chinese characteristics. The core lies in pursuing harmony between human beings and marine space on the premise of respecting the sea. The specific requirements are to jointly build a maritime community with a shared future, strengthen the prevention and control of marine environmental pollution, protect marine biodiversity, realize orderly development and utilization of marine resources, and leave a blue sea and sky for future generations. President Xi Jinping of the Chinese Communist Party pays close attention to the construction of marine ecological civilization, especially the legal construction of marine ecology, and even proposes protecting the marine ecological environment through the strictest legal system [34]. DPS further clarifies the legal liability of marine environmental protection. The consecutive fines with no capping have drawn a red line of strict accountability for the restoration of the damaged marine ecological environment.

Second, the scientific factor is to improve the compliance rate and total factor productivity of enterprises and promote sustainable marine development. The international community is making waves for the "blue economy" [35], which develops an ocean-based economy for current and future generations and requires managing and using the oceans and their resources in a sustainable manner. The DPS ties the fine amount to the violation duration and increases the costs of illegal pollution discharge by accumulating the daily illegal cost. This kind of design benefits to guide the pollution behavior of enterprises toward legal conformity and improve the compliance rate. Furthermore, a study suggests that the DPS stimulates the innovation compensation effect of enterprises through the high dynamic penalty mode and eliminates highly polluting and inefficient enterprises in the industry to improve the productivity of enterprises [36]. In the long run, DPS functions as a tool for environmental regulation that advances sustainable development. It turns

anti-pollution treatment from an “external compulsion” of environmental regulation into enterprises’ “internal demand” for constant survival and development [37]. Therefore, the introduction of DPS is an effective practice of following international waves for the blue economy and is conducive to achieving a win-win situation of marine economic growth and green development.

Third, the legal factor is to link up with the DPS added in the EPL. The EPL is a basic and comprehensive law in the environmental field, while the MEPL is a comprehensive law in marine environmental protection. They are both reviewed and adopted by the NPCSC and are endowed with equal effectiveness from the legal level. However, these two laws actually have an inclusive relationship in three aspects of the applicable scope, the protected object, and the stipulated content. First, Article 3 of the EPL regulates that this law applies to the territory of China and other sea areas under the jurisdiction of China. It naturally includes the applicable scope provided by Article 2 of the MEPL, i.e., the internal waters, territorial seas, contiguous zones, exclusive economic zones, and continental shelves of China and all other sea areas under the jurisdiction of China. Second, Article 2 of the EPL stipulates the protected object is the “environment,” i.e., the entirety of all the natural elements and artificially transformed natural elements that affect the survival and development of human beings. That includes the “marine environment,” namely, the protected object of a specific environment targeted by MEPL. Third, the EPL has proposed principles and general provisions regarding marine environmental protection and provides a guideline for specific provisions of the MEPL [38]. Hence, the EPL is considered the general law, while the MEPL serves as the special law. Under the principle that the special law is superior to the general law, the MEPL shall prevail in the case of any discrepancy between the MEPL and the EPL. The 2014 EPL is known as the strictest environmental protection law in Chinese history. DPS, with no upper limit, makes an outstanding addition by undoing the issue of “the low cost of violations” [39]. The introduction of DPS in the MEPL is a supplement to the EPL in marine environmental protection management, ensuring the consistency of China’s legal system for environmental protection. Further, it meets the needs of marine environmental protection work to deter offenders.

4.2. Applications of the DPS Provisions

The notable innovations of the MEPL (2016 Amendment) were the DPS provision in Article 73 and the cancellation of the fines ceiling of RMB 300,000 in Article 90. These two clauses were still retained in the MEPL (2017 Amendment) without any change. Article 73 stipulates: In the case of any of the following acts in violation of the provisions of this Law, the department empowered by this Law to conduct marine environment supervision and control shall order the violator to stop the illegal act and take corrective actions within a prescribed time limit or to take such measures as restricting production or suspending production for rectification, and impose a fine thereon. If the violator refuses to take corrective actions, the department that makes the punishment decision in accordance with the law may impose continuous fines thereon in the amount of the original fine for each day from the next day after the violator is ordered to take corrective actions. Under serious circumstances, the violator shall be ordered to stop operations or be closed down with the approval of the competent people’s government, including:

- (1) Discharging any pollutants or any other substances prohibited by this Law into any sea area.
- (2) Failing to discharge pollutants into the sea in accordance with the provisions of this Law or discharging pollutants in excess of standards or total discharge volume control indicators.
- (3) Dumping wastes into the sea without obtaining a permit for dumping wastes into the sea.
- (4) Failing to take immediate measures to handle any marine environmental pollution accident resulting from any accident or any other emergencies.

For any violation mentioned in (1) and (3) of the preceding paragraph, a fine of not less than RMB 30,000 but not more than RMB 200,000 shall be imposed, while for any violation mentioned in (2) and (4) of the preceding paragraph, a fine not less than RMB 20,000 but not more than RMB 100,000 shall be imposed [40] (see Table 3). Notably, the fine amount for each day of continuous punishment shall be the amount of the fine determined in the original punishment decision. In other words, the original fine in the second paragraph acts as the base for cumulatively calculating the total fines of consecutive penalties. The fine amount set following the rule of the daily continuous penalty shall be the amount of the fine determined in the original penalty decision multiplied by the number of penalty days.

Table 3. Daily penalty provisions of the MEPL.

	Penalty Objects	Implementation Scopes	Applicable Situations	Authority Departments
Daily Penalty	Indefinite	Polluting marine violations	Four situations	Departments conducting marine environment supervision and control

Source: Created in this research.

Taking an administrative penalty in Beihai City as an example, a firm discharged water pollutants in excess of standards. That violated item (2) of paragraph 1, Article 73 of the MEPL. The Ecological Environmental Bureau imposed a fine of RMB 60,000 and ordered the violator to halt discharging water pollutants out of standards. The firm refused to correct and continued the violating actions, thus leading the administrative organs to initiate continuous fines per day. The final fines were equal to RMB 60,000 multiplied by 13 days, a total of RMB 780,000. This penalty directly increased the illegal cost by 12 times, severely striking the malicious pollution behavior of the firm [41]. In addition, a firm in Zhongshan City carried out marine dumping operations without obtaining a permit for dumping wastes into the sea. The law enforcers imposed a fine of RMB 80,000 in accordance with item (3) of paragraph 1, Article 73 of the MEPL. The firm stopped violations and rectify immediately. Then the law enforcers did not start a daily continuous fine on it, which was mainly attributed to the preventive deterrence of DPS [42].

Notably, the MEPL, as the top-level marine law, was issued by the national legislature NPCSC. The DPS provisions apply to any polluting marine violations facing any one of the four situations nationwide. Furthermore, before the 2018 institutional reforms of the SC, the authorities of marine environment supervision were the SOA and the departments empowered to conduct marine environment supervision and control under the local people's governments at or above the county level. The responsibility of the enforcing law was specifically undertaken by the Chinese maritime supervision section affiliated thereto. After the reforms, the marine environment supervision was in charge of the Ecology and Environment Ministry at the central level, also the local ecological administrative organ (Ecological Environment Bureau). In 2021, the *Coast Guard Law* was formulated by the NPCSC, and the coast guard agencies were required to uniformly perform the duties of maritime rights protection and law enforcement.

4.3. Innovative Regulations for DPS

Notably, DPS in the MEPL has innovative regulations based on the EPL and *Daily Penalties Implementation Measures*, which can be detailed as follows: First, new applicable situations are established. Item (3) in paragraph 1 of Article 73 adds procedural violations involving the discharge of unlicensed pollutants, including dumping wastes into the sea without applying for a marine dumping permit and dumping waste when the application for a marine dumping permit is submitted but not approved. Item (4) in paragraph 1 of Article 73 refers to obligatory provisions stipulated for violators failing to take immediate measures to handle any marine environmental pollution accident resulting from any accident or any other emergencies. In case of any accident or emergency, the violators must immediately adopt effective measures, promptly inform all potentially endangered

parties, report to the department empowered by the MEPL to conduct marine environment supervision and control, and accept investigation and treatment. Otherwise, continuous daily fines will be imposed. Second, the DPS has two types of fines base. For the violation of the first and third items in paragraph 1 of Article 73, the base of the fine ranges from RMB 30,000 to RMB 200,000. For offenses of the second and fourth items, the fine base ranges from RMB 20,000 to RMB 100,000. Third, the forms for ordered corrections are explicit. The EPL uses the uniform title of “order to correct.” However, Article 73 of the MEPL prescribes “order to correct” as orders to stop illegal acts and take corrective action within a prescribed time limit or to take measures such as restricting production and suspending the production for rectification. Finally, a fine cannot be used singularly as the penalty base.

Article 59 of EPL restricts four conditions for implementing the DPS, including “polluter illegally discharging pollutants, being fined, being ordered to make corrections, and refusing to make corrections.” A logical relationship exists among the four terms. Only polluters illegally discharging pollutants can be fined. Besides, there will be situations related to refusing to make corrections only when the violator is ordered to make corrections. However, no order is set between “being fined” and “being ordered to correct.” The violator can be fined before being ordered to correct or be simultaneously fined and ordered to correct. However, when the MEPL applies the DPS, a fine must be imposed concurrently with the correction order. This indicates that while ordering the violator to correct the violation, the violator shall be given a certain financial punishment to compensate for losses and enhance deterrence.

5. Progress and Obstacles in the Implementation

When a law is enacted, its effectiveness lies in practical experience, not in logic alone [43]. Thus far, the DPS has been implemented for six years in marine law enforcement, which presents both achievements and shortcomings.

5.1. Achievements of DPS

First, the implementation of DPS has improved the citing frequency of the MEPL. This research chooses the Peking University law database, an authoritative and comprehensive database in China, and investigates the invoking of MEPL by searching the marine administrative penalties cases. Taking *The Marine Environment Protection Law* as the key term, the database shows relevant cases from 2008 to 2021 involving the administrative organs at all levels (the national, provincial, municipal, county, and district levels). The types of penalty organs include the ministry/department/bureau of environment protection, ministry/department/bureau of ecology and environment, ocean bureau, maritime bureau, etc. [44]. Figure 1 depicts that the number of cases on marine administrative punishment as a whole is on the rise, indicating that the usage frequency of citing the MEPL in administrative penalties practice is increasing in mass. With the MEPL (2016 Amendment) as the turning point, the number of cases per year was ≤ 100 before 2016, suggesting a low citing frequency of the MEPL before 2016. The number of cases from 2016 to 2021 increased significantly, exceeding 600 for five consecutive years, and exceeding 1000 in 2018 and 2021, respectively. The data show that the administrative organs have maintained a high citing frequency of the MEPL (2016 Amendment). However, the reason behind the high citing frequency is that the first two items of Article 73 and the second item of Article 87 of the MEPL are mainly applied by law enforcement agencies: cases applying Article 73 account for 17.80% in Liaoning Province, 16.90% in Shandong Province, 18.70% in Fujian Province, 21.91% in Zhejiang Province, and 36.70% in Guangdong Province [19]. Article 73 is the DPS clause added to the MEPL. In this case, it can be inferred that the DPS does improve the citing frequency of the MEPL.

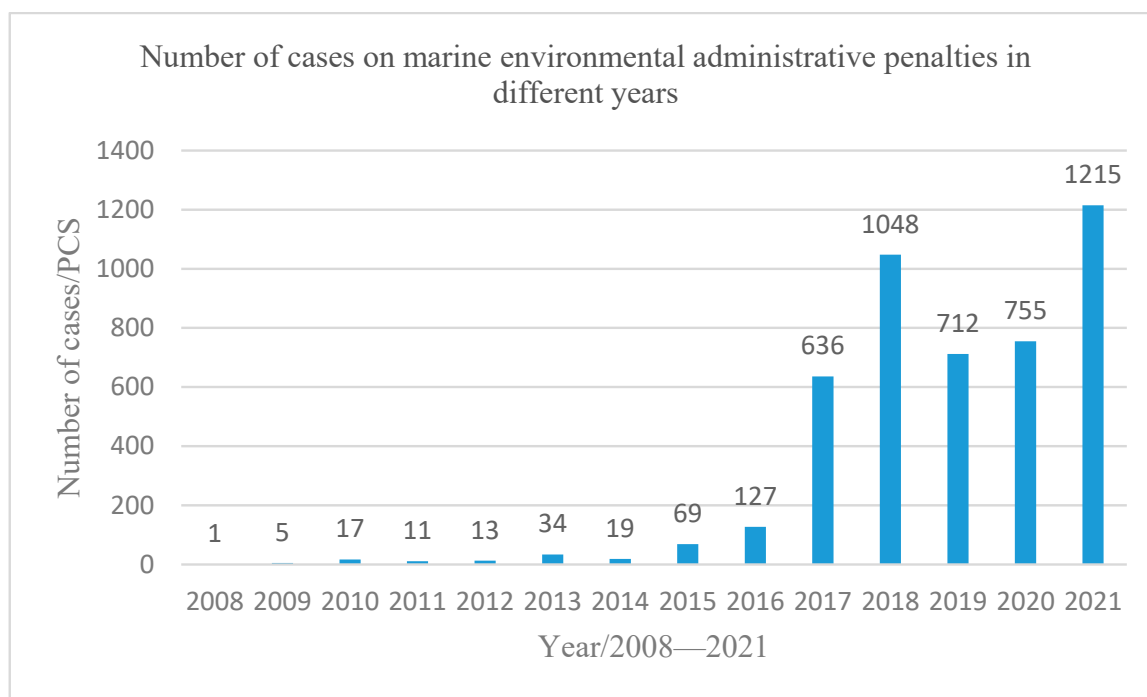


Figure 1. Number of cases of marine environmental administrative penalties from 2008 to 2021. Source: Created in this research.

Second, Article 73 of the MEPL provides a legal basis for DPS in local marine legislation. The addition of the DPS clauses in the 2016 revision of MEPL inspired local marine environmental protection legislation to attach importance to this legal-liability design. Significantly, despite the DPS of the MEPL being a national system, not all coastal provinces and cities have explicitly incorporated the DPS provisions. Currently, there are three forms of DPS provisions: first, DPS is clearly stipulated, listing the applicable situation and covering the miscellaneous clauses. For example, *The Qingdao Marine Environmental Protection Provision* lists four applicable cases of DPS and a miscellaneous clause as “violation of this Provision, in accordance with the MEPL . . . punish according to the law” [45]. Second, it directly quotes the related provisions of the MEPL. In *The Shandong Province Marine Environmental Protection Regulation*, “violation of this Regulation, the MEPL and other laws and administrative regulations have provided the penalty, and the department responsible for marine environment supervision and administration shall impose punishment in accordance with the provisions of laws and administrative regulations” [46]. Third, only a miscellaneous clause is stipulated. *The Tianjin Marine Environmental Protection Regulation* stipulates that “violation against this Regulation, punishment provisions in laws, administrative regulations and other local regulations of this Municipality shall be followed” [47].

Finally, the DPS raised the costs of violations and achieved positive results in protecting the marine ecological environment. Before adding the DPS clause, the maximum cost of dumping waste into the sea without obtaining a permit was RMB 200,000. After the DPS was incorporated, the cost of illegal behavior was increased without an upper limit. Huge fines deter violators from polluting marine and can also be used as a fund for restoring and conserving the marine ecological environment. For example, since 2022, the Guangxi Coast Guard has investigated and dealt with 16 cases of illegally dumping wastes into the sea, involving 24 ships and 7 marine projects, with a total fine of RMB 1.28 million, and effectively protected the marine ecological environment of the North Gulf [48].

5.2. First Obstacle: Shortcomings of DPS Provisions in MEPL

Despite substantial progress in the maritime field, DPS provisions in the MEPL are still subject to some shortcomings, heavily hindering the deterrence in solving maritime problems in China.

5.2.1. Narrow Application Scope

There are four illegal acts of marine pollution applicable to the DPS stipulated in the MEPL. Although the four violations have both substantive and procedural aspects, they are still not comprehensive enough. Marine environmental violations in China are extremely severe at present, including constructing marine engineering projects before their approval, dumping without following the provisions of the dumping permit, and distorting and falsifying marine environmental monitoring data. The above problems affect the entire compliance of marine environmental protection. In this case, limiting the application of DPS to marine pollution will seriously weaken the deterrent function and is, therefore, insufficient.

5.2.2. Low Daily Fine Quota

During the inspection of the MEPL enforcement by the NPCSC, local law enforcement generally reflects the necessity of strengthening the punishment [49].

Paragraph 2 of Article 73 of the MEPL stipulates a daily fine quota of up to RMB 200,000. However, the costs of marine pollution control are often tens of millions, and the fine of RMB 200,000 per day is obviously too low. After all, the final fines for ten consecutive days of illegal pollution discharge are RMB 2 million, failing to effectively punish and curb marine environmental violations. It is also an important reason explaining the preference of lawbreakers to “leave the land and discharge into the sea” in practice. Additionally, the APPCL and the WPPCL also provide the DPS, applying to the same violations involving unlicensed pollution discharge and beyond-standard pollution discharge. The maximum daily fine quota in the APPCL and the WPPCL is RMB one million, far more than five times or even ten times as stipulated in the MEPL (see Table 4).

Table 4. Comparison of the daily fine quota imposed on daily penalty under different laws (in RMB).

	MEPL	WPPCL	APPCL
Unlicensed pollution discharge behavior	30,000–200,000	100,000–1 million	100,000–1 million
Beyond standard pollution discharge behavior	20,000–100,000	100,000–1 million	100,000–1 million

Source: Created in this research.

5.2.3. Vague Provisions

First, there is no clear definition and standard for “pollutants” and “pollution sources” in the DPS clause. It can only be inferred from the other chapters of the MEPL. “Pollutants” include any possible substances that are directly or indirectly discharged to the seas and may cause pollution to the seas. “Pollution sources” may contain land-based pollution sources, coastal construction projects, marine construction projects, and vessels. Such uncertainty will be prone to law enforcement errors. For example, the Fishery Bureau and Natural Planning Bureau of a certain district imposed daily continuous fines on a company that illegally discharged a large amount of aquaculture wastewater directly into the sea. The company’s refusal to abide by the law triggered an administrative lawsuit. In the case of determining whether the cultivation wastewater was a pollutant as specified in the MEPL, the court held that the two defendants had not conducted a water-quality inspection on the wastewater without determining whether it exceeded the current national discharge standards, who then subjectively identified the cultivation wastewater as a pollutant. The court, in the absence of evidentiary support and an insufficient factual basis, finally revoked the administrative decision of daily continuous fines [50].

Second, there are no clearly punished objects of the DPS clause. The punished objects for the four violations stipulated in Article 73 of MEPL are not uniform, either the unit or the individual. In detail, items (1) and (2) correspond to most articles of the MEPL, such as Article 29, “the discharge of land-based pollutants into the sea shall strictly comply with the State or local standards and relevant stipulations”, failing to clarify the objects. Item (3) corresponds to Article 55, and the punished objects are units. Item (4) corresponds to Article 17, and the punished objects are units and individuals. In judicial practice, as claimed by some courts, the general provisions of the MEPL specify that the restricted objects are any unit or individual. Thus imposing daily continuous fines on individuals for illegally dumping without obtaining dumping permissions conforms to the legislative purpose [51]. However, some courts think that the term “unit” in Article 55 of the MEPL should not be expanded to “unit and individual”, either from the perspective of literal interpretation or overall interpretation imposing or the inappropriateness to decide against the administrative counterpart on ambiguous legal provisions. The courts persist that imposing the daily continuous fines for individual dumping is a mistake in the use of the law and should be revoked in accordance with the law [52].

Finally, the reviewing period and method are unreasonable. Marine environmental pollution is complex, difficult to control, and technically demanding [53]. To completely correct marine pollution violations, the 30-day review period is rather unreasonable, which not only increases the correction burden of the counterparts but also constrains law enforcers. Meanwhile, many maritime illegal acts are strongly concealed. Maritime law enforcement is limited by the conditions for handling cases, which makes it difficult to check, obtain, and verify evidence on the spot. The secret inspection of the review method in DPS is not conducive to the development of marine law enforcement.

5.3. Second Obstacle: Imperfect DPS in Other Marine Legislations

China has gradually developed a marine environmental governance system supported by various policies, laws, and regulations, with the MEPL at its core [21]. However, the following obstacles exist in the implementation of local legislation as well as their supporting laws and regulations.

First, there is a lack of DPS provisions in most of the supporting laws and regulations. To coordinate the implementation of the MEPL, a series of legislative acts on marine environmental protection and management have been successively promulgated in China. Laws and regulations, including *The Administrative Regulation on the Prevention and Treatment of the Pollution and Damage to the Marine Environment by Marine Engineering*, *Regulation on the Prevention and Control of Vessel-induced Pollution to the Marine Environment*, and *Fisheries Law and Regulations of Concerning Environmental Protection in Offshore Oil Exploration and Exploitation*, etc., jointly constitute a legal normative system for marine environmental protection. However, the DPS has not been established in the above laws and regulations, making it difficult to meet the actual needs of modern marine integrated management. *The U.S. 1987 Act Aimed to Prevent Pollution from Ships* stipulated a penalty of as much as USD 25,000 (RMB 93,000, according to the exchange rate of RMB to USD in 1987, USD 1 was about RMB 3.7221) per day [54]. *The Fishing Port Law of Taiwan, China*, stipulates continuous punishment on a daily basis for discharging toxic and harmful substances and oil waste in the fishing-port area and discharging wastewater or arbitrarily discarding waste in general [55].

Second, the majority of local marine legislations simply take the MEPL as the legal basis and copy the DPS provisions of the Law. Among 11 coastal provinces in China, except Hainan Province, marine environmental protection regulations or management regulations in other regions (Liaoning, Shandong, Hebei, Jiangsu, Zhejiang, Fujian, Shanghai, Guangdong, Tianjin, and Guangxi Zhuang Autonomous Region) have not explicitly introduced the DPS, thereby failing to solve the local marine pollution problem according to local conditions.

Third, the DPS clauses in some local laws and regulations are inconsistent with the higher-level laws. For example, *China's Maritime Traffic Safety Law* does not stipulate the DPS. However, *The Marine and Maritime Administrative Penalty Regulations* (MMAPR) of China in 2021 introduces the DPS, which directly copies three applicable situations in the MEPL, but deletes the situation of “dumping waste without a license” [56]. Meanwhile, *The Regulation of Yantai Municipality Marine Ecological Environment Protection* (Draft) copies three applicable situations of DPS in the MEPL but disregards the behavior of dumping wastes into the ocean without a license. Additionally, the Regulation extends the application of the DPS to “marine pollution from ships” [57].

6. Suggestions for Future Revisions

Against the revision background of the MEPL, the DPS design should be timely improved to provide a guarantee for marine administrative law enforcement when the essential role of effective law enforcement in the stability and security of any coastal state's maritime rights and interests is taken into consideration [58].

6.1. Revising the DPS Provisions of MEPL

6.1.1. Expanding the Application Scope

Marine environmental protection includes pollution prevention and control and ecological protection. In this case, it is necessary to expand the application scope of DPS and improve the overall system deterrence in an orderly manner, thereby further improving the marine ecological environment.

First, the types of violations can be more inclusive and wide-ranging. Construction of marine engineering projects without approval and environmental impact assessment according to law and the marine pollution by ships should be included in the applications of DPS. Article 54 of *The Dalian Marine Environmental Protection Regulations* has regulated that violations of “vessels pollution” are also applicable to the DPS. That means if the vessel garbage, sewage, oily wastewater, wastewater containing toxic and hazardous substances, waste gas and other pollutants, and ballast water discharged by vessels to the ocean within the sea areas of Dalian City don't meet the laws, regulations, other relevant provisions and the requirement of discharge standards could impose continuous penalties per day when refusing correction after being ordered to correct [59]. Second, some serious violations that damage marine ecological protection shall also be consecutively punished on a daily basis. For example, excessive illegal land reclamation has reduced the coastal wetlands in a large area and the natural coastline, causing serious ecological degradation and idle waste of resources. The total annual ecological damage in Jiaozhou Bay caused by land reclamation amounts to RMB 12.46 billion [60]. Finally, a supplementary provision shall be added, whereby local marine protection regulations can, according to the actual needs, increase the types of violations for which continuous daily penalty is imposed.

6.1.2. Increasing the Daily Fine Quota

Zheng Jianmin, the Vice Governor of Fujian Province in China, claimed that the fine quota for marine violations was too low and proposed to increase the quota when revising the MEPL again [61].

Herein, it is first recommended to learn from the DPS provision of the APPCL and the WPPCL, setting the maximum daily fine at RMB one million to strengthen marine legal deterrence. Second, the U.S. experience of adjusting the daily fine with inflation should be absorbed. On 13 January 2020, the U.S. Environmental Protection Agency adjusted the statutory maximum of daily fine in multiple environmental Acts. *The Act to Prevent Pollution from Ships* raised the daily fine to USD 75,867 per day, and *The Marine Protection, Research, and Sanctuaries Act* raised the daily fine to USD 1284 per day [62]. According to the exchange rate of RMB to USD on January 2020, USD 1 was about RMB 6.9172. Thus, the maximum daily fine under the two laws in the U.S. was about RMB 520,000 and RMB 8881, respectively. Third, paragraph 2 of Article 59 in the EPL rules that the daily fine quota shall

be determined on the basis of factors such as the operation costs of pollution prevention and control installations, the direct losses caused by the illegal act, and the illegal income as provided for by the relevant laws and regulations. However, factors such as “enterprise size, illegal economic interests, violators’ compliance record honest efforts and payment ability” should also be considered as the punishment criteria [63].

6.1.3. Formulating Specific Application Standards for DPS

It is suggested to formulate specific application standards of the DPS to solve the problems of inadequate legal responsibility, lax law enforcement, and administrative inaction in the implementation by marine law enforcers.

First, “pollutants” of the DPS clause could be defined in three specific ways: (1) MEPL may imitate the definition of water pollutants in the WPPCL, defining pollutants as substances directly or indirectly discharged to the sea and might cause pollution to the sea; (2) MEPL may learn the second paragraph of Article 2 of the APPCL, listing out specific substances included in the pollutants; and (3) Article 94 of MEPL stipulates the meaning of “pollution damage to the marine environment.” From that, MEPL may define the pollutants as “substances that are directly or indirectly discharged into marine environment and are harmful to marine living resources, human health, fishing, seawater utilization quality and environmental quality.” This research holds that the most reasonable way is to list the types of pollutants for identification based on the unified definition in the MEPL.

Second, the punished object should be regulated clearly. Article 4 of China’s *Administrative Penalty Law* stipulates, “an administrative penalty that needs to be imposed upon a citizen, legal person or another organization for violation of the administrative order”. Article 4 of MEPL goes, “All units and individuals shall have the obligation to protect the marine environment”. Especially, Article 59 of EPL specifies the objects of DPS as “any enterprise, public institution, or other producers and operators.” Furthermore, Article 38 of MMAPR (2021) further defines the punished objects of DPS as a vessel’s owner, an operator, or a manager. Therefore, the punished object of DPS can be reasonably inferred to be “any unit or individual,” which not only conforms to the legislative spirit [64] but is also in line with other legal norms.

Third, the Ministry of Ecological Environment has decided to cancel the 30-day review period for DPS to strengthen law enforcement [65]. The decision can be referred to when revising the MEPL. Additionally, a reasonable review method should be set with the marine particularity to avoid the one-size-fits-all method of hidden inspection.

Furthermore, to prevent marine law enforcers from abusing their power or neglecting their duties, refining the applicable standards for the DPS is suggested. *The Discretion Standard on Marine Administrative Punishment of Shenzhen* has made positive explorations in that aspect, detailing the DPS clause of the MEPL and classifying the punishment according to different illegal circumstances. The illegal degree of item (1) of Article 73 divided the punishment into light, ordinary, and serious conditions, and the daily fine quota is RMB 30,000, RMB 100,000, and RMB 200,000, respectively. The illegal degree of items (2) and (4) is divided into general and heavier, with a daily fine quota of RMB 50,000 and RMB 100,000, respectively [66].

6.2. Improving DPS in Other Marine Legislations

First, supporting legislation should be incorporated the DPS clause in a timely manner. To regulate marine and maritime administrative penalties, the Transport Ministry of China included the DPS in the MMAPR (2021). Similarly, such practice should be followed to strictly regulate fishery management, oil and gas exploration and production, ship pollution, ocean engineering construction projects, and ocean dumping. Correspondingly, it is necessary to modify the legal responsibilities of relevant marine supporting legislation. Such as *Administrative Regulation on the Prevention and Treatment of the Pollution and Damage to the Marine Environment by Marine Engineering*, *Regulation on the Prevention and Control of Vessel-induced Pollution to the Marine Environment*, *Fisheries Law and Regulations of Concerning*

Environmental Protection in Offshore Oil Exploration and Exploitation shall introduce the DPS, thereby strengthening the punishment and promoting the comprehensive development of marine undertakings.

Second, the local people's congress and its standing committee should perform their legislative power and design DPS provisions according to local conditions. Adaptive coordination from the bottom to the top is the most prominent feature of changing from management to governance [67]. New models of marine environmental governance tailored to local conditions should be explored by local governments [68]. Local laws and regulations related to marine environmental protection should explicitly include the DPS, gradually improve its system construction, and promote its implementation at a larger scope and a higher level. For example, *The 2017 Marine Environmental Protection Regulations of Hainan* (Amendment (II)) has detailed the liability content of DPS and clearly listed three applicable situations as (1) discharging mariculture wastewater beyond the standard, (2) discharging solid wastes and wastewater into the sea area by units or individuals that lawfully use the sea area or the coast for production and business activities; and (3) failing to transport the solid wastes and wastewater generated to the land for centralized treatment and discharge into the sea from entities and vessels engaged in marine catering services and other production, transportation, and business activities in the coastal sea area [69].

7. Conclusions

The upcoming revision of the MEPL represents the efforts made by China to promote marine ecological civilization and build its maritime power. One of the crucial points of the revision is about improving the punishment methods and the intensity of marine administrative punishment. To achieve a major breakthrough in this regard, it is an inevitable course of action to revise the DPS clause of the MEPL. However, not enough attention has been paid to constructing the DPS in the marine field. There is a lack of comprehensive and systematic research on DPS based on the particularity of marine law enforcement. Some scholars have already proposed to establish the principle of DPS in revising the MEPL as the highest conduct code in marine environmental law enforcement and management, to better protect China's marine environmental rights and interests [70]. In this case, the improvement of DPS is a rather important new subject in revising the MEPL.

Besides revising the DPS provisions of the MEPL, the improvement and refinement of the DPS shall be carefully considered in the marine supporting regulations and local legislation. In particular, the DPS shall be introduced into important areas such as fishery, vessel operation, and offshore oil exploration and exploitation, thereby making DPS a wide, regular, and effective marine punishment system in China.

To summarize, the DPS matters considerably in protecting the marine environment and promoting the sound development of marine undertakings. However, it is still subject to some obstacles, as proposed in this paper. China is expected to give full play to the institutional advantages of DPS in the revision of the MEPL, realize the strictness of marine administrative penalties, and fundamentally solve the problem of "low costs of fines for illegal behaviors".

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References

1. United Nations. About the 2022 UN Ocean Conference. Available online: <https://www.un.org/en/conferences/ocean2022/about> (accessed on 20 May 2022).
2. Maestro, M.; Perez-Cayeyro, M.L.; Chica-Ruiz, J.A.; Reyes, H. Marine Protected Areas in the 21st Century: Current Situation and Trends. *Ocean Coast. Manag.* **2019**, *171*, 28–36. [CrossRef]
3. Chang, Y.C.; Wang, C.L.; Khan, M.I.; Wang, N.N. Legal Practices and Challenges in Addressing Climate Change and Its Impact on the Oceans—A Chinese Perspective. *Mar. Policy* **2020**, *111*, 103355. [CrossRef]
4. Shao, Q.L. Nonlinear Effects of Marine Economic Growth and Technological Innovation on Marine Pollution: Panel Threshold Analysis for China's 11 Coastal Regions. *Mar. Policy* **2021**, *121*, 104110. [CrossRef]
5. Kroeker, K.J.; Kordas, R.L.; Crim, R.; Hendriks, I.E.; Ramajo, L.; Singh, G.S.; Duarte, C.M.; Gattuso, J.-P. Impacts of Ocean Acidification on Marine Organisms: Quantifying Sensitivities and Interaction with Warming. *Glob. Chang. Biol.* **2013**, *6*, 1884–1996. [CrossRef] [PubMed]
6. Levin, L.A.; Mengerink, K.; Gjerde, K.M.; Rowden, A.A.; Van Dover, C.L.; Clark, M.C.; Ramirez-Llodra, E.; Currie, B.; Smit, C.R.; Sato, K.N.; et al. Defining “Serious Harm” to the Marine Environment in the Context of Deep-seabed Mining. *Mar. Policy* **2016**, *74*, 245–259. [CrossRef]
7. Lohinov, O.V.; Todorova, O.V. Administrative Responsibility for Pollution of the Marine Environment: Problematic Aspects. *Lex Portus*. **2018**, *11*, 208–218. [CrossRef]
8. Jiang, M.Z.; Faure, M. The Compensation System for Marine Ecological Damage Resulting from Offshore Drilling in China. *Mar. Policy* **2022**, *143*, 105132. [CrossRef]
9. Lavrova, O.Y.; Kostianoy, A.G. Catastrophic oil spill in the Gulf of Mexico in April–May 2010. *Izv. Atmos. Ocean. Phys.* **2011**, *47*, 1114–1118. [CrossRef]
10. Spence, D.B. The Shadow of the Rational Polluter: Rethinking the Role of Rational Actor Models in Environmental Law. *Calif Law. Rev.* **2001**, *4*, 917–998. [CrossRef]
11. Garlow, C.; Ryan, J. A brief argument for the inclusion of an assessment of increased market share in the determination of civil penalty liability for environmental violations: Letting corporations share the regulatory burden of policing their markets. *Boston Coll. Environ. Aff. Law Rev.* **1994**, *22*, 27–48.
12. Lindauer, P. The CERCLA's Daily Penalty and Treble Damages Provisions: Is Any Cause “Sufficient Cause” to Disobey an EPA Order? *Pace Environ. Law Rev.* **1994**, *2*, 657–972.
13. Ministry of Ecology and Environment of the People's Republic of China. MEE Regular Press Conference (August). Available online: https://www.mee.gov.cn/ywdt/zbft/202108/t20210826_860714.shtml (accessed on 15 October 2022).
14. Ministry of Ecology and Environment of the People's Republic of China. Fourteenth Five Year Plan for Marine Ecological Environment Protection. Available online: <https://www.mee.gov.cn/xxgk/xxgk03/202202/W020220222382120532016.pdf> (accessed on 15 October 2022).
15. Yu, Z.R. Some Opinions on the Revision of the Law of Marine Environmental Protection. *J. Zhejiang Ocean Univ. Human Sci. Ed.* **2020**, *6*, 1–7. (In Chinese)
16. You, Z.X.; Xu, X.M. Amendment to Marine Environment Protection Law Guided by the Concept of Community of Shared Future for Mankind. *Seek. Truth* **2020**, *6*, 110–120. (In Chinese)
17. Bao, H.Y.; Chen, L. Judicial Remedy of Marine Environmental Pollution Damage—Taking the Revision of the Law of Marine Environmental Protection as the Moment. *J. Zhejiang Ocean Univ. Human Sci. Ed.* **2020**, *6*, 61–67. (In Chinese)
18. Qin, Y.; Xia, Y.H. On the Perfection of the Regulations of Offshore oil and Gas Exploration in the Law of Marine Environmental Protection. *J. Zhejiang Ocean Univ. Human Sci. Ed.* **2020**, *6*, 13–18. (In Chinese)
19. Li, T.X.; Li, Z.S. Optimized Path for Administrative Punishment for Marine Environmental Protection. *Environ. Sustain. Dev.* **2020**, *4*, 111–114. (In Chinese)
20. Ma, Y.J.; Zhao, J.R. Historical Development and Future Prospect of China's Marine Environmental Protection Legal System. *J. Guizhou Univ. Soc. Sci. Ed.* **2019**, *3*, 61–67. (In Chinese)
21. Yu, J.K.; Bi, W.J. Evolution of Marine Environmental Governance Policy in China. *Sustainability* **2019**, *11*, 5076. [CrossRef]
22. Zhang, H.W. Review and Prospect of the Development of “Marine Environmental Protection Law of the People's Republic of China”. *Environ. Sustain. Dev.* **2020**, *4*, 79–84. (In Chinese)
23. State Council of the People's Republic of China. State Council Institutional Reform Program. Available online: http://www.gov.cn/xinwen/2018-03/17/content_5275116.htm (accessed on 25 May 2022).
24. Teng, X.J. Analysis on the Reform of China's Marine Management System. *China Manag. Inf.* **2020**, *16*, 200–202. (In Chinese)
25. Zhang, C.; Quan, Y.B.; Zhong, H.Y. The Building of Marine Ecological Civilization and Sustainable Development: Conference Report. *Mar. Policy* **2019**, *110*, 103627. [CrossRef]
26. National People's Congress of the People's Republic of China. Revise the Marine Environmental Protection Law and Start the Revision Procedure as soon as Possible. Available online: <http://www.npc.gov.cn/npc/c30834/202201/2f94031e519c45299dbc62eb8639edf8.shtml> (accessed on 25 May 2022).
27. National People's Congress of the People's Republic of China. 2022 Legislative Work Plan of the Standing Committee of the National People's Congress. Available online: <http://www.npc.gov.cn/npc/c30834/202205/40310d18f30042d98e004c7a1916c16f.shtml> (accessed on 26 May 2022).

28. Drápal, J. Day fines: A European Comparison and Czech Malpractice. *Eur. J. Criminol.* **2018**, *14*, 461–480. [CrossRef]
29. Li, J.Y. How Do You Punish People on a Daily Basis? Available online: http://epaper.cenews.com.cn/html/2014-04/02/node_7.htm (accessed on 26 May 2022).
30. Yan, D.K.; Chen, D.M. Research on the Application of the Daily Penalty System of the Environmental Protection Law—Based on the Perspective of Legislation and Law Enforcement. *J. Beijing Inst. Technol. Soc. Sci. Ed.* **2016**, *6*, 146–152. (In Chinese)
31. Standing Committee of the National People’s Congress of China. Environmental Protection Law of the People’s Republic of China (2014 Revision). Article 59 of Chapter 5. Available online: <https://www.lawinfochina.com/display.aspx?id=18126&lib> (accessed on 26 May 2022).
32. Ministry of Ecology and Environment of the People’s Republic of China. Measures for the Implementation by Competent Environmental Protection Departments of Consecutive Daily Penalties. Article 5 of Chapter 2. Available online: https://www.mee.gov.cn/gkml/hbb/bl/201412/t20141223_293365.htm (accessed on 2 September 2022).
33. People’s Network. Decision of the Central Committee of the Communist Party of China on Several Major Issues Concerning Comprehensively Deepening Reform. Available online: <http://politics.people.com.cn/n/2013/1115/c1001-23559207.html> (accessed on 27 May 2022).
34. Mahaseth, H. Analysis of the Law on Marine Environment Protection of the People’s Republic of China. *J. Hunan Univ. Nat. Sci.* **2021**, *12*, 2034–2045.
35. Untied Nations. Making Waves for a Blue Economy. Available online: <https://www.un.org/en/desa/making-waves-blue-economy> (accessed on 14 October 2022).
36. Shi, D.Q.; Xiong, G.Q.; Bu, C.Q. The Effect of Stringent Environmental Regulation Firms’ TFP—New Evidence from a Quasi-natural Experiment in Chongqing’s Daily Penalty Policy. *Environ. Sci. Pollut. R.* **2022**, *21*, 32065–32081. [CrossRef]
37. Bao, H.L. Comment on the Daily Penalty System in China. *Young Sci.* **2014**, *7*, 190. (In Chinese)
38. He, R. Research on the Plan and Suggestion of Land-sea Integration Base on the Environmental Protection Law and the Marine Environment Protection Law. *Mar. Environ. Sci.* **2021**, *5*, 776–781. (In Chinese)
39. Zhang, B.; Cao, C.; Gu, J.Z.; Liu, T. A New Environmental Protection Law, Many Old Problems? Challenges to Environmental Governance in China. *J. Environ. Law* **2016**, *2*, 325–335. [CrossRef]
40. Standing Committee of the National People’s Congress of China. Marine Environment Protection Law of the People’s Republic of China (2017 Amendment). Article 73 of Chapter 9. Available online: <https://www.lawinfochina.com/display.aspx?id=27153&lib=law&Search> (accessed on 23 May 2022).
41. Beihai City People’s Government. Available online: http://xxgk.beihai.gov.cn/bhshjbhj/tszl_84510/hbxxgk/xzcf/zjzcdxzcfd/201905/t20190529_1880393.html (accessed on 5 September 2022).
42. South China Sea Bureau of the Ministry of Natural Resources. Available online: <http://scs.mnr.gov.cn/scsb/ljl/201712/e812d1e79b674fff9ace7cc4409d3458.shtml> (accessed on 5 September 2022).
43. Freckelton, I. Therapeutic Jurisprudence Misunderstood and Misrepresented: The Price and Risks of Influence. *Tho. Jeff. Law Rev.* **2008**, *2*, 575–595.
44. Peking University Law Database. Available online: <https://www.pkulaw.com/penalty?way=topGuid> (accessed on 5 June 2022).
45. Qingdao Municipal People’s Congress (incl.Standing Committee). Qingdao Municipal Marine Environmental Protection Provision (2018 Amendment). Article 42 & 47 of Chapter 6. Available online: <https://www.pkulaw.com/lar/f8bf90e27e1c8675975923371efc6a13bdfb.html?> (accessed on 27 May 2022).
46. Shandong Provincial People’s Congress (incl.Standing Committee). Shandong Province Marine Environmental Protection Regulations (2018 Amendment). Article 30. Available online: <https://www.pkulaw.com/lar/a33b1d6d595a59460a56b8ae9b8ae8dbbdfb.html?> (accessed on 27 May 2022).
47. Tianjin Municipal People’s Congress (incl.Standing Committee). Tianjin Municipality Marine Environmental Protection Regulations (2020 Amendment). Article 37 of Chapter 6. Available online: <https://www.pkulaw.com/lar/73c929c2bb3ec6f0a2e0ec3d88597baabdfb.html?> (accessed on 28 May 2022).
48. Guangming Website. Available online: <https://m.gmw.cn/baijia/2022-08/18/1303097762.html> (accessed on 5 September 2022).
49. National People’s Congress of the People’s Republic of China. The Legal System of Marine Environmental Protection Needs to be Improved. Available online: <http://www.npc.gov.cn/npc/c30834/201809/e30313fe1a7642f6857d39fdb946266a.shtml> (accessed on 28 May 2022).
50. Tianjin Maritime Court (2019) Jin 72 Xingchu No. 9 Administrative Judgment. Available online: <https://www.pkulaw.com/pfnl/a6bdb3332ec0adc4a48334133fa666687657c87cc900ace9bdfb.html?> (accessed on 31 May 2022).
51. Haikou Maritime Court (2019) Qiong 72 Xing Chu No. 53 Administrative Judgment. Available online: <https://www.pkulaw.com/pfnl/a6bdb3332ec0adc44f6459d042a1f0d4d014498028260de2bdfb.html> (accessed on 31 May 2022).
52. Xiamen Maritime Court (2019) Min 72 Xing Chu No. 7 Administrative Judgment. Available online: <https://www.pkulaw.com/pfnl/c05aeed05a57db0af5914c602decef5b490b6aad28bfd4fbdfb.html> (accessed on 31 May 2022).
53. Ren, W.H.; Ni, J.; Chen, Y. Exploring the Marine Ecological Environment Management in China: Evolution, Challenges and Prospects. *Sustainability* **2022**, *2*, 912. [CrossRef]
54. GPO. United States Code. §1908(b) of Title 33. Available online: <https://www.govinfo.gov/content/pkg/USCODE-2020-title33/html/USCODE-2020-title33-chap33-sec1908.htm> (accessed on 30 May 2022).

55. Chen, L.L. Legal System of Marine Environmental Protection in Taiwan and Its Enlightenment. *Cross-Strait Legal Sci.* **2018**, *1*, 17–26. (In Chinese)
56. Ministry of Transport of the People's Republic of China. Provisions of the People's Republic of China on Marine and Maritime Administrative Penalties. Article 38 of Chapter 3. Available online: <https://www.lawinfochina.com/display.aspx?> (accessed on 30 May 2022).
57. Yantai Municipal Bureau of Ecology and Environment. Regulations of Yantai Municipality Marine Ecological Environment Protection (Draft). Article 52 & 58 of Chapter 6. Available online: http://hbj.yantai.gov.cn/art/2022/3/2/art_23560_2904310.html (accessed on 30 May 2022).
58. Chang, Y.C. The Use of Force During Law Enforcement in Disputed Maritime Areas. *Mar. Policy* **2021**, *124*, 104382. [CrossRef]
59. Dalian Municipal People's Congress (incl.Standing Committee). Dalian Municipality Marine Environmental Protection Regulations. Article 54 of Chapter 6. Available online: <https://flk.npc.gov.cn/detail2.html> (accessed on 1 June 2022).
60. Shan, J.Z.; Li, J.M. Valuing Marine Ecosystem Service Damage Caused by Land Reclamation: Insights from a Deliberative Choice Experiment in Jiaozhou Bay. *Mar. Policy* **2020**, *122*, 104249. [CrossRef]
61. National People's Congress of the People's Republic of China. Amend Laws and Increase Penalties for Illegal Acts. Available online: <http://www.npc.gov.cn/npc/c722/201810/1e52742e79a7421bbff80d84342a282d.shtml> (accessed on 1 June 2022).
62. EPA. Civil Monetary Penalty Inflation Adjustment. Available online: <https://www.federalregister.gov/documents/2020/01/13/2019-28019/civil-monetary-penalty-inflation-adjustment> (accessed on 1 June 2022).
63. GPO. United States Code. §7413(e)(1) of Title 42. Available online: <https://www.govinfo.gov/content/pkg/USCODE-2020-title42/html/USCODE-2020-title42-chap85-subchapI-partA.htm> (accessed on 5 June 2022).
64. Han, B.Z.; Yuan, G.H. Study on Difficult Issues of Marine Illegal Pollutant Disposal Administrative Penalty. *China Mar. Saf.* **2017**, *3*, 27–29. (In Chinese)
65. Ministry of Ecology and Environment of the People's Republic of China. Notice of the Ministry of Environmental Protection on Public Solicitation of Comments on “Decision of the Ministry of Environmental Protection on Amending the ‘Measures for the Implementation by Competent Environmental Protection Departments of Consecutive Daily Penalties’ (Draft for Comments)”. Available online: http://www.mee.gov.cn/ywgz/sthjzf/zfzdyxzc/201705/t20170518_414301.shtml (accessed on 15 June 2022).
66. Shenzhen Maritime Administrative Punishment Discretion Standard. Available online: http://www.sz.gov.cn/szzt2010/wgkzl/glgk/jgxxgk/gtzy/content/post_8042030.htm (accessed on 15 June 2022).
67. Schreiber, E.S.; Bearlin, A.R.; Nicol, S.J.; Todd, C.R. Adaptive Management: A Synthesis of Current Understanding and Effective Application. *Eco. Manag. Rest.* **2004**, *3*, 177–182. [CrossRef]
68. Chen, Q.; Yu, H.J.; Wang, Y.Z. Research on Modern Marine Environmental Governance in China: Subject Identification, Structural Characteristics, and Operational Mechanisms. *Int. J. Environ. Res. Public Health* **2021**, *9*, 4485. [CrossRef]
69. Hainan Provincial People's Congress (incl.Standing Committee). Hainan Province Marine Environmental Protection Regulations Amendment (II). Article 34 & 37. Available online: <https://www.pkulaw.com/lar/4bac43d120a590b4af955dad5817b572bdfb.html?> (accessed on 12 June 2022).
70. Bai, J.Y.; Sui, J.X. Requirement of Rule of Law for Marine Ecological: An Empirical Study Under the Revision of the Draft of the Marine Environment Protection Law. *J. Shandong Univ. Sci. Technol.* **2018**, *3*, 74–83. (In Chinese)