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## EDITED BY

Yen-Chiang Chang,  
Dalian Maritime University, China

## REVIEWED BY

Chingakham Chinglenthoba,  
National University of Singapore, Singapore  
Tiantian Zhai,  
Shandong Normal University, China

## \*CORRESPONDENCE

Lei Yang  
✉ yanglei\_law@sdsjzu.edu.cn

RECEIVED 15 April 2025

ACCEPTED 05 June 2025

PUBLISHED 02 July 2025

## CITATION

Yang L, Liang H and Li YJ (2025)  
Governmental claims system for  
marine ecological damage in China.  
*Front. Mar. Sci.* 12:1612246.  
doi: 10.3389/fmars.2025.1612246

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# Governmental claims system for marine ecological damage in China

Lei Yang<sup>1\*</sup>, Hao Liang<sup>2</sup> and Yu-jing Li<sup>3</sup>

<sup>1</sup>School of Marxism, Shandong Jianzhu University, Jinan, China, <sup>2</sup>Network Technology Department, Jinan Municipal Digital Application Center of Ecology and Environment, Jinan, China, <sup>3</sup>Shandong Government Affairs Department, Beijing Tianrongxin Network Security Technology Co., Ltd, Beijing, China

The governmental claims system designed to address damage to China's marine ecological environment faces several significant challenges. These challenges include ambiguities in the legal attributes of the system, disputes over the identity and role of claimants, the sequencing and interaction of consultation processes, the enforcement of environmental laws, the conditions and scope of the right to claim, and the legitimacy of consultative agreements. Such theoretical and practical disputes have hindered the effectiveness of the system. To enhance this system, it is crucial to establish a robust theoretical foundation for claims based on public law principles. Additionally, it is essential to explore the development of a centralized mechanism for managing claims related to marine ecological damage, particularly through administrative bodies responsible for marine ecological supervision. It is also critical to clarify the conditions under which claims can be initiated and to refine the procedural framework governing consultations. Furthermore, it is vital to strengthen the synergy between administrative law enforcement and consultation processes, while simultaneously fostering international cooperation in the marine ecosystem governance. The thesis delves into the nature of claim litigation as a distinct category of public interest litigation and elucidates the relationship with other types of legal proceedings.

## KEYWORDS

marine ecological environment, marine ecological damage claim, agreement on consultation, marine ecological environment administrative law enforcement, China

## 1 Introduction

The prevention and governance of pollution in China's marine ecological environment, known as MEED (marine ecological and environmental damage), have seen significant progress. Nevertheless, a wide range of environmental pollution issues—such as land-based pollution, hazardous chemical leaks, land reclamation, illegal disposal of toxic waste, unauthorized exploitation of marine natural resources, ecological damage from illegal fishing, degradation of marine biological resources, loss of biodiversity, and depletion of

marine resources—continue to pose substantial challenges to the effective management of the marine ecological environment (Wang and Chang, 2023).

The marine ecosystem embodies three distinct values. The first value is the intrinsic value of natural resources arising from the utility and scarcity of elements within the marine ecosystem that are naturally occurring and generated without human intervention. The second value is the indirect functional value, which refers to the contributions of marine ecological components to the overall ecosystem, including their roles in sustaining ecological balance and facilitating the virtuous cycle of ecological processes. The third is anthropogenic value, which includes efforts for the protection and restoration of the marine ecosystem, as well as the extraction and utilization of marine natural resources.

The degradation of the marine ecological environment not only compromises its service functions but also imposes significant adverse effects on public interests, particularly those related to ecological health, safety, and sustainable development (Wang et al., 2013).

The public's interest in the Ministry of Ecology and Environment (MEE) stems from its broad international influence and the high level of professional knowledge required for ecological restoration. The marine environment exhibits characteristics of transboundary, three-dimensional, and ecological interconnection (Xu and Liu, 2016). Global oceans are inherently interconnected and influenced by various phenomena such as ocean currents, tides, and other seawater movements. Notably, there is a complex interplay between marine biological communities and their ecological environments. The incubation period of marine pollution, the mobility of pollutants, and the self-restorative capacity of the ocean present substantial challenges to the marine environmental protection (Fu and Wei, 2023). The process of identification, enforcement, and remediation of pollution in marine ecosystems typically necessitate the involvement of specialized agencies with relevant technical expertise.

The academic research on the governmental claims system (MEED) has yielded substantial findings. The research primarily centers on the protection of the ecological environment and methods associated with ecological restoration. Scholars argue that restoration serve as the principal approach to safeguarding the functions of marine ecosystems. They have also examined numerous case studies of marine ecological restoration within the context of China (Wang et al., 2024).

Furthermore, researchers have explored various dimensions related to compensation for harm inflicted on marine ecosystems including theoretical aspects, policy development and implementation, institutional frameworks, legal systems, and judicial practices. Gunther's study investigates issues concerning liability and compensation associated with marine environmental pollution and potential revisions to existing frameworks within the context of maritime conventions (Handle, 2019). The study analyzes a pertinent case of illegal fishing to underscore the necessity of establishing an evaluative framework within China's ecological damage compensation system (Zhang et al., 2023). The study undertaken by Rao and associates investigates the mechanisms and criteria for compensating MEED in China (Rao et al., 2014). Liu and

Ma assess China's restoration goals, methodologies, funding mechanisms, and outcomes of coastal wetland restoration initiatives over the past two decades (Liu and Ma, 2024).

Another paper uses the 2011 Bohai Sea oil spill as a case study to evaluate the legal frameworks governing China's MEED compensation system (Liu and Zhu, 2014). The manuscript provides a comprehensive overview of the flowchart and policy implementation process associated with designing and executing China's ecological damage compensation policy (Zhou et al., 2023).

Lastly, Li and Xie explore the theoretical foundations, legal provisions, primary procedures, institutional arrangements, challenges, and future prospects of government claims regarding MEED, providing a comprehensive analysis of the legal framework for addressing MEED in China. This includes an examination of the principal entities involved, the litigation process, as well as the deficiencies and improvements in legislative provisions (Li and Xie, 2022). Zhang's dissertation further investigates the legal framework surrounding the government's entitlement to claims for MEED and proposes recommendations for enhancing the system (Zhang B., 2020). Wang and Zhang argue that compensation for MEED possesses distinct characteristics compared to other forms of environmental compensation (Wang and Chang, 2021). However, discrepancies exist between current legislation, international conventions regarding the scope of compensation, and judicial interpretations. It is argued that the provisions of the Civil Code of the People's Republic of China should not be directly applied to MEED cases, necessitating the reconstruction of a specialized compensation framework.

In the process of academic research, scholars have made some important discoveries in exploring the compensation framework for MEED. However, within the context of Chinese institutions reform, there remains a lack of comprehensive studies on the theoretical basis, claimants, ambiguous legal conditions for submitting claims, and procedural mechanisms governing government rights claims. Cao's paper explores how governments are legally empowered to serve as claimants, utilizing remedies from both public and private law simultaneously (Cao, 2022). Various entities entitled to claim MEED compensation have exercised their rights based on their responsibilities to regulate the marine environment and ecology (Liu and Liu, 2023). The lack of a well-defined framework for delineating the competence of claims has resulted in conflicts among claimants and negatively affected the efficiency of the claims process (Han and Chen, 2019; Wang H., 2023). Liu, Wang, and Chang argue that authorities serve as the primary entity accountable for the protection of public interests, while the public serves as a supplementary entity, with the procuratorate acting as the ultimate guarantor of these interests (Liu WX, 2020). Currently, initiating a governmental claim related to MEED requires meeting the threshold of significant loss to the state, specifically an economic loss exceeding RMB 300,000. Scholars argue that this criterion is insufficient for addressing contemporary challenges in marine environmental protection (Bie et al., 2020). Additionally, it is necessary to conduct investigations, verifications, and assessments of the damage before determining whether the economic loss meets the criteria for initiating a claim. If the criteria are not satisfied, these investigative

costs may impose a financial burden (Cai et al., 2024). At the same time, scholars believe that the existing consultation system regarding MEED requires improvement, particularly in terms of procedural clarity and the enforcement of consultation agreements (Mei and Wang, 2019; Li, 2019).

Based on the context of institutional reform, this paper identifies several deficiencies in the current system, including ambiguous theoretical foundation, unclear claimant identity, and inadequate negotiation procedures. It also suggests concrete ways to improve the system. The study employs both research and interview methods to gather information from administrative supervision departments responsible for the Ministry of Natural Resources (MNR), Ecological Environment Protection, Agriculture, Rural Areas, and Ecological Environment. It also collects judicial cases and academic literature related to China's claims against the MEE. The goal is to gather comprehensive data and information on the legal foundations of China's national claims related to MEE, and to analyze the current challenges and potential strategies for improvement. By analyzing this information and drawing upon existing academic discourse, this paper focuses on systemic issues and potential solutions regarding government claims for environmental and ecological protection projects. The structure of this paper is as follows: The second section provides a detailed analysis of China's government claims system in relation to economic and environmental protection, including relevant concepts, theoretical foundations, claims models, and various institutional components. The third section summarizes the functioning and significance of similar systems in other countries and regions. The fourth section discusses the theoretical and practical challenges faced by the government in MEED claims, such as the ambiguous division of powers between claimants, unclear legal conditions for initiating claims, and imperfect consultation procedures. These issues have undermined people's motivation to pursue claims. Additionally, these problems have created tensions between the right to claim and administrative power, potentially leading to the abuse of administrative discretion. The fifth section proposes a series of targeted improvement measures to address the challenges identified in the fourth section. These proposed measures aim to create a more effective framework for claimants, introducing clearer standards for submitting claims and procedural systems for negotiation. Additionally, the measures establish a statutory framework for administrative law enforcement and claims, while emphasizing the importance of enhancing international cooperation and public awareness.

## 2 The definition, structure, functions, legal framework, and implementation of the governmental claims system pertaining to MEED in China

### 2.1 Definition of the concept of governmental claims for MEED

The assessment of ecological and environmental damage is a critical factor in establishing liability for MEED and serves as a

prerequisite for initiating governmental claims (Lv, 2017). MEED constitutes a specific subset of broader ecological and environmental damage. However, the current legal framework lacks a precise and universally accepted definition of MEED. The Environmental Protection Law of the People's Republic of China explicitly states that individuals responsible for causing ecological damage and environmental pollution are liable under tort law. In addition, the Pilot Programme on the Compensation System for Ecological and Environmental Damage (2015) and the Programme on the Reform of the Compensation System for Ecological and Environmental Damage (2017) provide general definitions for ecological and environmental damage, but these documents do not specifically address MEED. Article 7 of the Provisions of the Supreme Court on Several Issues Concerning the Trial of Cases of Disputes over Compensation for Damages to Marine Natural Resources and the Ecological Environment clearly outlines the scope of compensation for MEED. Furthermore, the Marine Environmental Protection Law (MEPL) stipulates that infringements, including those causing MEED, resulting in harm to others, shall incur civil liability in accordance with legal provisions. MEED is defined in this context as the direct or indirect introduction of substances or energy into the marine environment, leading to detrimental effects such as harm to marine living resources, threats to human health, disruption of lawful maritime activities, degradation of seawater quality, and overall environmental detriment. This definition is comprehensive, encompassing not only the damages to the marine ecosystem but also the impacts on human health and the fisheries sector (Prata, 2018). Furthermore, international agreements, such as the International Convention on Civil Liability for Oil Pollution Damage, frequently utilize the concepts of environmental damage or environmental pollution (Liu, 2017).

Based on the concepts of environmental planning and management, this paper defines damage to marine ecosystems as observable or measurable adverse changes in the physical, chemical, or biological properties of the marine environment. These changes primarily involve biological components, such as the atmosphere, seawater, seabed, and marine plants, animals, and microorganisms. These alternations may be directly or indirectly attributed to environmental pollution or ecosystem degradation, subsequently diminishing the capacity of Marine Ecosystems Service (MES) (Lillebo et al., 2017).

This definition aligns with the ecological environment damage compensation system within the framework of China's ecological civilization. It aims to enhance the consistency between the land and MEED compensation systems, particularly concerning the identification of claimant and the implementation of these systems. The definition elucidates that the claim primarily pertains to two categories of violations: marine environmental pollution and ecological damage. This underscores the legal responsibility of state administrative agencies, characterized by its public nature, and differentiate it from civil tort damages. MEED emphasizes the negative effects of environmental pollution and ecological degradation. It categorizes damage to ecosystems, primarily focusing on pollution-related damage and ecological

damage, while excluding personal injury, property damage, and other tort claims. Specifically, it includes the degradation of marine ecosystems, the depletion of marine living resources, and the overall decline in the quality and value of the marine environment. The concept of MEED does not entirely align with civil tort liability, as the former aims to prevent further deterioration of marine ecosystems and promote the restoration of damaged ecosystems (Yan et al., 2020). Beyond requiring the responsible party to account for direct or indirect losses caused by MEED, the system also holds the responsible party accountable for reductions or losses in other national interests that cannot be quantified in monetary terms, such as biodiversity. The overall goal is to protect and restore marine ecosystems, ensuring their continued health and vitality for future generations.

Human activities have caused both direct and indirect damage to the marine ecological environment, resulting in detrimental alterations to the physical, chemical, and biological properties of marine ecosystems, along with significant degradation of ecosystem functions (Wang and Zou, 2020). The sources of marine pollution are diverse, including not only pollutants from ships, marine structures, and marine waste but also heavy metals and plastic debris originating from land. This ecological devastation has resulted in a decline of marine species and the contamination of natural resources such as seawater. Furthermore, it also poses a threat to marine food safety and severely impairs essential ecosystem services such as carbon sequestration, oxygen production, aquaculture, fisheries, and tourism (Yuan et al., 2022). The degradation and ecological destruction of marine ecosystems share common features, violating the public interests of various non-specific stakeholders within the shared ecological environment.

Consequently, the issue is characterized by its public, non-exclusive, and non-specific nature, which fundamentally differentiates it from civil rights related to the personal and property claims of a particular individual. In addressing the aforementioned MEED, the administrative bodies responsible for the supervision and management of the marine ecological environment, hereafter referred to as the Marine Ecological

Environment Administration (MEEA), are empowered by legislation to pursue compensation from the offenders of MEED on behalf of the state. This remedial framework constitutes the national claim mechanism for MEED. This approach to relief represents a fundamental aspect of the six primary avenues for addressing MEED in China (Table 1).

## 2.2 The primary legal foundation for governmental assertions regarding MEED

The legal framework governing governmental claims for MEED encompasses a variety of sources, including statutory laws, administrative regulations, judicial interpretations, international treaties, and relevant policy documents (refer to Tables 2, 3). The relevant legislation is primarily listed in the following chapters (see Table 2): Chapter 7 of the Civil Code of the P.R.C. (2021) clearly stipulates liability for environmental pollution and ecological damage, including tort liability, the scope of compensation, punitive damages, and ecological restoration obligations. Article 1229 stipulates that parties are responsible for the consequences of their infringement. Article 1235 specifies that state organs have been authorized to seek compensation for ecological and environmental damage and outlines the scope of compensation. Article 64 of the Environmental Protection Law of the P.R.C. (2015) also provides similar provisions on tort liability for ecological damage and environmental pollution. The MEPL of the P.R.C. (2023 edition) serves as an important legal basis. The second chapter defines the authorities for marine environmental supervision and management, while the third chapter outlines the primary responsibility for marine ecological protection. The following four chapters detail the administrative units and their responsibilities for the prevention and control of marine environmental pollution. Chapter 8 discusses legal liability, with Article 114 specifying the subjects and organs responsible for compensation, thereby offering a clear framework for implementation of the government liability system. The procedural aspects, including trial procedures, rules of evidence,

TABLE 1 Six major remedies for China's MEED.

Relief ways	Executive subject	Remedy	Applicable conditions	Relieving measures
Marine administrative enforcement	MEEA	Administrative	MEED behavior	Administrative inspections, penalties, compulsory enforcement, etc.
Consultation on compensation for the MEED	MEEA	Administrative	MEED behavior	The MEED investigation negotiations, consultation
The MEED compensation litigation	MEEA	Judicial	MEED behavior	Initiating litigation and participating in litigation proceedings
Civil public interest litigation	Environment NGOs	Judicial	MEED behavior	Initiating litigation and participating in litigation proceedings
Civil public interest litigation	Procuratorial organs	Judicial	MEED behavior	Procuratorial pre-litigation suggestions, initiating litigation and participating in litigation proceedings
Administrative public interest litigation	Procuratorial organs	Judicial	Marine administrative acts	Procuratorial pre-litigation suggestions, initiating litigation and participating in litigation proceedings

TABLE 2 The primary legislation regulating governmental claims pertaining to MEED.

Laws	Main provisions	Main contents
Civil Code	Article 1229	The liability for torts arising from environmental pollution and ecological destruction
	Article 1235	Claims for compensation and the five specific scopes of damage compensation including pollution cleanup costs, restoration expenses, and losses incurred due to the degradation of ecological service functions, etc.
Marine Environment Protection Law	Chapter 2o	Powers of supervision and administration over the marine environment
	Chapter 3	Responsible entities and content of marine ecological protection
	Chapters 4 to 7	Administrative entities and responsibilities for preventing and controlling marine environmental pollution caused by land-based pollutants, construction projects, waste dumping, etc.
	Article 114	Claiming entities and their authorities enforcement, etc.
Civil Procedure Law	Articles 42, 58, 137, etc.	Trial procedures, rules of evidence, burden of proof, adjudication, enforcement, etc.
Environmental Protection Law	Article 64	Liability for torts arising from ecological damage and environmental pollution
Fisheries Law	Article 47	Should bear legal responsibility for causing ecological and environmental damage to fishing waters

and the burden of proof, should align with the general civil procedure provisions outlined in the Civil Procedure Law of the P.R.C. (2023) and relevant judicial interpretations. In addition, other laws and regulations include similar provisions on legal liability for ecological damage.

The legal framework comprises a comprehensive array of administrative regulations and departmental guidelines that offer detailed directives (shown in Table 3) (Shu, 2011). The Technical Guidelines for the Assessment of Marine Ecological Damage (for Trial Implementation) (2013) define the scope of application, procedural methodologies, content, and technical standards essential for evaluating MEED. These guidelines systematically delineate the procedural systems involved in the preparatory phase, investigative phase, analytical and assessment phase, and report preparation phase of MEED assessments. Furthermore, they specify the parameters for compensation, including costs associated with preventive measures such as pollution removal, losses incurred during the recovery period of the marine environment's capacity, remediation expenses, and other reasonable costs (Samhoury et al., 2013). The Measures for Claiming State Losses for Marine

TABLE 3 The primary administrative regulations.

Administrative regulations	Main provisions	Main contents
Technical Guidelines for the Assessment of Marine Ecological Damage (Trial Version)	Article 4	The work procedure for MEED assessment
	Article 7	Determination of objects, scope, and severity of MEED
	Article 8	Calculation of the value of MEED
Method for Claiming Compensation for National Losses Due to Marine Ecological Damage	Articles 1 to 16	Legal scenarios, scope, authorities and jurisdictions, procedures, and compensation for claims related to marine ecological environment damage
Regulations on the Administration of Environmental Protection for Offshore Oil Exploration and Development	Article 9	Civil Liability Insurance or Financial Guarantee Responsibility for Marine Pollution Damage
Regulations on the Prevention and Control of Pollution and Damage to the Marine Environment Caused by Marine Engineering Construction Projects	Article 55	The party responsible is obligated to mitigate the hazard and provide compensation for the resulting losses
Measures for the Implementation of the Regulations on the Administration of Marine Waste Dumping	Article 37	Liability and scope of compensation
Regulations on the Prevention and Control of Marine Pollution Caused by Ships	Articles 48, 49, 53, etc.	Principles of attribution for ship oil pollution, the legal circumstances under which compensation liability can be exempted, and the priority of compensation claims
Regulations on Compensation for Oil Pollution Damage from Ships	Chapter 1	Applicable scenarios include the scope of application for ships, oil pollution accidents, and geographical regions
	Chapter 2	Basic procedures for submitting and settling claims

Ecological Damage (2014) elaborates on the statutory conditions, scope of claims, authorities responsible for claims, and the procedures for making claims. Notably, it details specific actions that result in MEED and outlines the extent of compensation.

In significant sectors contributing to MEED, such as oil and gas development, marine engineering, and pollutant disposal, Article 9 of the Regulations of the P.R.C. on the Administration of Environmental Protection in Marine Petroleum Exploration and Exploitation (1983) mandates civil liability insurance or financial guarantees for marine pollution damage. Additionally, Article 55 of the Regulations of the P.R.C. on the Administration of the Prevention and Control of Pollution and Damage to the Marine Environment Caused by Marine Engineering Construction Projects



(2018) stipulates that individuals responsible for pollution-related damage to the marine environment must mitigate hazards and provide compensation for incurred losses. Moreover, Article 37 of the Measures for the Implementation of the Regulations of the P.R.C. on the Management of Marine Dumping (2017) asserts that the liable party must compensate for MEED, specifically addressing issues related to seawater quality and biological resources. The administrative regulations governing ship pollution primarily include the Regulations on the Administration of Prevention and Control of Ship Pollution of the Marine Environment (2018) and the Guidelines on Claims for the Ship Oil Pollution Damage Compensation Fund (2022).

The Provisions of the Supreme People's Court on Several Issues Concerning the Trial of Disputes over Compensation for Damages to Marine Natural Resources and the Ecological Environment is an important legal basis for maritime courts to hear litigation cases regarding compensation for damage to marine natural resources and the ecological environment. These provisions primarily stipulate the definition of marine ecological environment damage, the subject of claims, the form of litigation, the allocation of responsibility, the degree of damage, and the determination and enforcement procedures for compensation. Specifically, Article 3 addresses the determination of claimants and their respective powers, while Article 7 divides the scope of compensation into four categories: costs related to investigation and assessment, recovery costs, losses incurred during recovery, and costs related to preventive measures. Additionally, Article 2 of the Provisions of the Supreme People's Court and the Supreme People's Procuratorate on Handling Public Interest Litigation Cases Involving Marine Natural Resources and the Ecological Environment clarifies the parties to compensation litigation and also defines the division of responsibilities between marine administrative supervision organs and procuratorial organs. The Pilot Scheme for the Ecological Environment Damage Compensation System (2015), Reform Scheme for the Ecological Environment Damage Compensation System (2017) and Management Regulations for Ecological Environment Damage Compensation (2022) also provide guidance for further improving the framework for ecological environment construction, compensation scope, liability subjects, and procedures.

China has ratified and actively advocated the implementation of the United Nations Convention on the Law of the Sea (UNCLOS), the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, the Antarctic Treaty, the Convention on Biological Diversity, and more than 30 multilateral treaties related to marine issues. Article 194 of the UNCLOS stipulates that each contracting state must take necessary measures to prevent and address pollution and damage to the marine environment (Mei, 2022a). In addition, Article 229 provides that civil actions for damage caused by marine pollution are not affected by the provisions of the Convention. Article 235 emphasizes that a legal mechanism for remediation and compensation must be established to address environmental damage caused by pollution.

International conventions on civil liability for oil pollution damage to ships mainly include the International Convention on Civil Liability for Oil Pollution Damage (1992) and the International Convention on Civil Liability for Oil Pollution Damage (2001), which stipulate the subject of liability for oil pollution damage and the distribution of liability. The determination of the principal claimant is usually governed by the domestic law of each country. The International Convention on Civil Liability for Oil Pollution Damage (1992) mainly stipulates the subject of liability for oil pollution damage from ships, the conditions for filing claims, and the basic measures to prevent marine pollution. In contrast, the International Convention on Civil Liability for Fuel Pollution Damage (2001) stipulates the subject of claims, the subject of liability, and the degree of damage.

However, the lack of consistent underlying legislation relating to ocean issues, such as a comprehensive "Law of the Sea," has created a fragmented legal landscape, characterized by inconsistencies between various legal norms. The MEPL should clearly stipulate the constituent elements, subjects of rights, authority and procedure, and enforcement mechanisms for environmental protection. In addition, relevant parties should strengthen norms in local legislation on marine environmental protection.

In the realm of judicial practice, the adjudication of cases pertaining to MEED resulting from oil pollution by vessels in China has established a comprehensive regulatory framework. This framework comprises international treaties, domestic legislation, and judicial interpretations. When a lawsuit is initiated to seek compensation for MEED attributable to oil discharge from a ship, oil production at sea, or ship operations, it must be submitted to a maritime court that possesses territorial jurisdiction. To safeguard international maritime shipping and uphold the efficacy of international regulations, such cases are primarily governed by the Maritime Law, the Regulations on the Administration of Prevention and Control of Pollution of the Marine Environment by Ships, the International Convention on Civil Liability for Oil Pollution Damage (1992), the International Convention on Civil Liability for Bunker Oil Pollution Damage (2001), and the Provisions on Several Issues Concerning the Trial of Disputes over Damage from Oil Pollution by Ships, as well as the Supreme People's Court's Provisions on Several Issues Concerning the Trial of Cases of Disputes over Oil Pollution Damage from Ships. Additionally, other specific regulations regarding the scope of damages, liability limitations, mandatory insurance, liability funds, and relevant stipulations from the Law on Special Procedures in Maritime Litigation and its judicial interpretations are applicable (Wang and Yu, 2018). For claims related to other forms of MEED, such as overfishing and the disposal of marine pollutants, the Marine Environmental Protection Law, the Supreme People's Court's Provisions on Several Issues Concerning the Trial of Cases of Disputes over Compensation for Damage to Marine Natural Resources and the Ecological Environment and the Measures for Claims for Losses by the State for Marine Ecological Damage are generally invoked.

## 2.3 The primary methodologies employed by governmental entities in relation to MEED

One mechanism for addressing claims is through consultation, which serves as a pre-litigation process for governmental claims (Liao, 2020). In accordance with the provisions of the Environmental Protection Law, the Measures for Claims for National Losses of Marine Ecological Damage (hereafter referred to as MCNLMED), and other pertinent legislation, the MEEA is authorized to negotiate on behalf of the state or to initiate legal proceedings concerning MEED. The MEEA engages in compensation claims and ecological restoration through various consultation mechanisms. The Technical Guidelines for Marine Ecological Damage Assessment (Trial) delineate the procedural requirements for the preparation, investigation, and compilation of reports related to MEED assessments. These guidelines encompass the identification of MEED entities, the evaluation of the extent of MEED, the calculation of the value of MEED, and the formulation and associated costs of ecological restoration programs. The national standard Technical Guidelines for Marine Ecological Damage Assessment (GB/T 34546.1) specifies particular technical requirements that must be adhered to.

An alternative approach to addressing MEED involves compensation litigation (Mei and Wang, 2017). According to Article 114 (2) of the Marine Environment Law, the MEEA possesses the authority to initiate legal action against individuals or enterprises that violate environmental regulations, as well as to file legal proceedings. Additionally, procuratorial organs can provide support in these legal actions (Wang, 2019). Furthermore, the Supreme People's Court and the Supreme People's Procuratorate have issued guidance on handling public interest litigation cases involving MEED. The procuratorial organs are empowered to notify the MEEA to initiate legal action upon the identification of illegal activities that threaten marine ecosystems. If the relevant administrative authorities fail to take action, the People's Procuratorate is authorized to initiate civil public interest litigation (Zhang and Li, 2018).

Environmental justice seeks to correct the inequality of rights and responsibilities related to environmental protection, ensure the fair distribution of environmental benefits and burdens, and hold accountable those who cause damage to the environment (Philip and Reisch, 2015). This framework aims to protect the public's shared environmental rights and interests, creating a favorable living environment for all people. Therefore, environmental justice includes not only distributive justice, which focuses on the fair distribution of environmental interests and responsibilities, but also corrective justice, which emphasizes accountability for environmental violations and ecological restoration obligations (Zhang and Nie, 2019). Owing to the destruction of these ecosystems, the decline in biodiversity, and the degradation of the marine environment, these populations may suffer significant economic losses and reduced employment opportunities (Sun, 2017). The legal framework grants the marine administrative department the authority to prevent, address violations of marine

ecological system, protect the public interest and achieve sustainable development (Ehresman and Okereke, 2015) through litigation and other means.

## 3 Overview of the framework for asserting claims related to MEED in overseas regions

To tackle the challenges of marine environmental pollution and ecological degradation, countries worldwide have gradually developed distinct ecological protection compensation systems, which serve as important reference models for other nations.

Despite the disparities in legal traditions and judicial frameworks between China and the U.S., the claims system for MEED in the U.S. presents various insights. The U.S. has established a robust legal framework for addressing environmental and ecological pollution damage, resulting in positive outcomes in practice (Zhou et al., 2025). A significant instance of environmental disaster is the oil spill in the Gulf of Mexico, which is regarded as one of the most severe oil spills in American history (Boesch et al., 2023), as illustrated in Table 4. In this case, the U.S. federal government played a crucial role in facilitating negotiations, compelling the responsible party, British Petroleum (hereafter referred to as BP), to establish a \$20 billion claims fund aimed at providing compensation to the affected parties and to initiate a \$1 billion ecological restoration project. The compensation framework encompassed economic losses incurred by coastal enterprises and individuals, costs associated with pollution removal, and the depletion of natural resources.

Following the damage assessment process, an additional \$8.8 billion in claims agreements were secured to address damage to marine natural resources and the public interest. The five affected states collectively obtained a total of \$18.7 billion in compensation for declines in government revenue and environmental damage through claims litigation, while civil litigation culminated in a \$7.8 billion settlement with BP. Concurrently, the U.S. federal government established the National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling, appointing a Federal On-Scene Coordinator responsible for implementing emergency measures at both federal and state levels to prevent pollution (Yu, 2009). The United States Department of Justice has filed criminal charges against BP, which has subsequently agreed to a settlement totaling \$4.525 billion, inclusive of \$1.256 billion in criminal fines. This settlement also allocates \$2.394 billion for environmental restoration and \$350 million for scientific research pertaining to environmental concerns.

Initially, it is crucial to elucidate the legal principles that underpin the establishment and implementation of the MEED claim system. The principle of public trust serves as the legal foundation for this system. According to this principle, marine natural resources and ecosystems are considered significant public trust assets, with the federal government, state governments, and indigenous tribes acting as trustees responsible for their protection and maintenance (Henquinet, 2006). This principle also informs

**TABLE 4** The ecological environment protection compensation systems in the oil spill in the Gulf of Mexico.

Claimants initiative party	Method	Subsequent results
The United States federal government	Negotiation	\$20 billion claims fund providing compensation to the individuals and businesses that suffered from economic losses
		\$1 billion ecological restoration project
		\$8.8 billion addressing marine natural resources damage and the public interest
The five affected states	Civil litigation	\$18.7 billion offering compensation for the reduction in governmental revenue and environmental damage
The National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling	Independent investigation	Investigation into the factors contributing to the Mexican oil spill, the government's emergency response measures and various related issues
		Offering suggestions for the prevention of future offshore drilling
The Federal On-Scene Coordinator	Coordination	Coordinating and supervising the emergency response implemented by federal and state authorities
The Coast Guard	Emergency responses	Implementing the National Contingency Plan
The United States Department of Justice	Criminal litigation	\$1.256 billion criminal fines
		\$2.394 billion for environmental restoration
		\$350 million for scientific research

the identification of claimants and their respective authorities. Moreover, it is essential to develop a comprehensive framework of legal standards that delineates the basis for preventing incidents that result in MEED, the procedures for submitting claims, the assignment of legal responsibility, and the mechanisms for ecological restoration. In addition to case law, the United States has enacted several statutes pertinent to marine ecological protection and pollution prevention, including the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the Clean Water Act, the Oil Pollution Act, the National Marine Protected Areas Act, and the Ship Pollution Prevention Act. The legal framework governing this system encompasses all facets of eco-environmental protection claims, including claims authority, emergency measures, initiation of investigations, consultations or litigation, oversight, and the implementation of ecological restoration (Craig, 2010). Furthermore, it incorporates stringent legal liability systems that encompass both civil and criminal liabilities.

Thirdly, the claimants in this context include governmental agencies, non-governmental organizations (NGOs), and individual citizens. The inclusion of a diverse array of these entities can enhance public participation and foster collaboration and

coordination among the various stakeholders involved. According to the Superfund Act and other relevant legal provisions, claimants encompass government entities, NGOs, and individual citizens. However, in practice, it is predominantly the federal and state governments that lead negotiations and litigation concerning claims. The public possesses the right to be informed about marine environmental policies and construction projects, as well as to engage in significant environmental decision-making and assessments. Such participation can be facilitated through public interest litigation related to the marine environment and actions against non-compliant governmental authorities. Despite certain limitations, such as the 60-day notice requirement, civil litigation can effectively ensure the timely execution of administrative duties associated with compensation claims, thereby promoting more comprehensive compensation for environmental protection initiatives, including those that affect marine biodiversity. Furthermore, the mechanism for compensation claims is characterized by its flexibility, encompassing both consultation and litigation options.

The implementation of the strict liability principle, in conjunction with a comprehensive framework for compensation and stringent administrative and criminal penalties, is employed to enforce sanctions against offenders and to ensure the efficacy of marine ecological restoration efforts. This approach differs from the traditional principle of tort liability, which typically necessitates the demonstration of fault to establish liability. In this context, responsibility is ascertained based on the damage inflicted by various sources of pollution. The scope of compensation encompasses three primary components: the costs associated with ecological restoration, transitional losses incurred during the restoration period, and the evaluation costs incurred by the trustee. This includes expenses related to pollution cleanup, remediation efforts, damage to natural resources, loss of public services during the transitional phase, assessment costs, and the broader impact on public interest. Assessments of ecological resource damage should take into account not only economic value but also natural, aesthetic, and cultural value. MEED claims system should be integrated with stringent administrative penalties to enhance its deterrent effect and increase the financial burden on environmental offenders (Zhu and Gao, 2020). The evaluation tools employed are scientific, standardized, and adaptable, with distinct evaluation methodologies established for various types and severities of MEED.

Germany established procedures that enable social organizations to initiate legal actions aimed at environmental and ecological protection (Campbell, 2023). The claims associated with MEED are primarily enforced by administrative authorities. This framework may more effectively compel these authorities to fulfill their legal obligations and provides valuable insights for China. Public interest litigation initiated by environmental social organizations serves to examine the legality of administrative actions. Germany operates under a civil law system, which encompasses the enactment of the Environmental Responsibility Act and the Environmental Damage Prevention and Remediation Act. These legislative measures delineate the qualifications and



procedures that social organizations must follow to initiate legal proceedings concerning environmental and ecological damage. The provisions clarify the rights and jurisdiction pertinent to such litigation. Organizations seeking to engage in environmental group litigation must meet specific legal criteria, which stipulate that their primary objective is environmental protection, that they have been operational for a minimum of 3 years, and that they actively participate in public welfare and obligations related to environmental issues (Wu, 2017).

## 4 Governmental claims regarding MEED: theoretical controversies, institutional deficiencies, and practical challenges

The Marine Environment and Ecology Administration (MEEA) has made significant contributions to the protection of the marine environment, the restoration of marine ecosystems, and the safeguarding of national marine interests. The temporal scope of cases extends from 1 January 2012 to 27 May 2025. The search parameters focused on the marine ecological environment, indemnity litigation, or public interest litigation, utilizing the China Judgements Online as the primary database. A total of 15 cases were identified; however, after excluding 2 unrelated cases, 13 cases remained that pertained to civil public interest litigation resulting from damage to the marine ecological environment. In terms of the parties initiating litigation, there were five cases of public interest litigation initiated by procuratorial organs, five cases initiated by social organizations, including the China Biodiversity Conservation and Green Development Foundation, one case supported by the local procuratorial agency, and three cases initiated by administrative bodies such as Ecological and Environmental Protection authorities. Following institutional reforms, the administrative bodies involved were categorized into three primary types: Ecological and Environmental Protection, Agriculture and Rural Affairs, Natural Resources and Planning, and Coast Guard, which could be sued either individually or collectively. Prior to the establishment of the environmental public interest litigation system in 2012, a total of eight cases concerning disputes over compensation for damage to marine ecosystems were initiated. The administrative organs, such as the Maritime Bureau, the Ocean and Fisheries Department, and the Department of Fisheries and Fishing Harbour Supervision and Management, were recognized by the courts as liable claimants. In six of these cases, relief was successfully obtained through litigation. Notably, in the incident involving the “12-7” ship collision and the subsequent oil spill in the Pearl River Estuary, a mediation agreement was reached through negotiations facilitated by the Claims Coordination Group, resulting in a compensation claim totaling \$8.5 million. In this Penglai 19-3 oil spill case, the former State Oceanic Administration (SOA) actively promoted the process of MEED compensation and eventually signed MEED compensation agreements with ConocoPhillips and China

National Offshore Oil Corporation (CNOOC). According to the agreement, a special compensation of 1.683 billion yuan was allocated for marine environment restoration. Additionally, the former Ministry of Agriculture of the People’s Republic of China entered into a fishery loss compensation agreement with the aforementioned companies to exercise its rights and receive RMB 350 million in compensation for the restoration and protection of natural fishery resources (Liu et al., 2013). The government claims system related to MEED addresses the inherent limitations of traditional administrative law enforcement methods. It facilitates effective accountability and recovery of damage to the marine environment, while also conserving judicial and administrative resources.

The primary causes of the cases can be categorized as follows: first, disputes regarding liability resulting from illegal sand mining, unlawful disposal of construction waste and other hazardous materials, as well as landfilling activities on beaches and mudflats; second, maritime disputes; third, the illegal acquisition, transportation, and sale of sea turtles and other marine protected species; and fourth, disputes concerning the validation of maritime claims arising from oil spills and shipwrecks, in addition to disputes over liability for MEED. Additionally, there was a case pertaining to air pollution liability. All initial cases fell under the exclusive jurisdiction of the Maritime Court. Among the litigations initiated by social organizations, two cases acknowledged the standing of these organizations, particularly in relation to land-based areas such as mudflats. In the three cases that were dismissed, which primarily involved the degradation of marine fishery resources due to illegal fishing and unauthorized construction activities in coastal regions, the courts determined that the governmental departments responsible for supervising and managing the marine environment, such as fisheries administrative authorities, possess the legal authority to initiate claims.

In addition, regulatory authorities adopt a consultative approach to dispute resolution. For instance, the Nantong Marine Police Bureau has collaborated with the Rudong County People’s Procuratorate and the Rudong County Ecological Environment Bureau to facilitate consultations regarding compensation for MEED. Offenders engaged in illegal construction are required to undertake alternative marine ecological restoration measures, which include sea augmentation and the release of marine organisms.

The ambiguity present in the provisions concerning the claimants, the legal prerequisites for initiating such claims, and the associated procedures significantly impedes the capacity of administrative authorities to effectively address the damaged MEE. Consequently, prosecutorial bodies have taken on the primary responsibility for litigation pertaining to MEED. Furthermore, the absence of pertinent legal provisions has resulted in practical challenges within judicial practice, including issues related to the application of laws and the delineation of the scope of claims. These challenges hinder the provision of timely and effective remedies for damages to marine ecology and the environment. Additionally, the deficiencies within the legal

framework may negatively affect the resolution of cases involving marine ecosystem damage with international elements, potentially jeopardizing national marine interests. This system faces several challenges, such as a vague legal basis, unclear legal status, and theoretical disputes. Moreover, the claimants are fragmented, the conditions for exercising the right to claim are ambiguous, the procedural framework is inadequate, and there may be conflicts between government claims and administrative law enforcement actions. These challenges highlight the decentralized and overlapping powers of administrative bodies overseeing the marine ecological environment, which complicates the identification of claimants and reduces the willingness to pursue compensation. It also underscores the need to improve the procedural framework and explicitly address anomalies in the business process.

#### 4.1 Contentious theoretical framework for the governmental claims system addressing MEED

The theoretical framework supporting the MEED governmental claims system addresses some basic issues, including the origin of the claiming authority, the formulation of remedial measures, and the legal legitimacy of the negotiated agreements (Mei, 2017). The primary theoretical viewpoints include the ownership of national natural resources, the principle of public trust, and the obligation of national environmental protection. The theoretical basis for the establishment of the governmental claims system for marine environmental protection is mainly grounded in the principle of public law, especially the principle of legal responsibility for marine environmental protection. This is necessary to address the inherent limitations of both the theory of state ownership of natural resources and the theory of trust.

The theory of state ownership of natural resources does not fully encompass the sovereign rights related to the development and jurisdiction over marine natural resources. It has been suggested that the framework for claims regarding MEED is based on the ownership of national natural resources (Ma, 2011), which falls within the scope of property rights in civil law. This includes the state's rights to possess, utilize, derive profit from, and exercise discretion over national natural resources. Article 247 of the Civil Code of the People's Republic of China (hereafter referred to as the P.R.C.) explicitly states that mineral deposits, bodies of water, and maritime areas are state-owned. Furthermore, Articles 2 and 3 of the Law on the Administration of Sea Area Use (hereafter referred to as LASAU) stipulate that the sea area includes the water surface, water body, seabed, and subsoil of the internal waters and territorial waters of the People's Republic of China, which belong to the state and are owned by the State Council on behalf of the state. Therefore, as the entity with marine ownership, the state has the right to claim compensation for damage to marine ecosystems in China's territorial waters. According to pertinent provisions of both international and domestic law, China possesses sovereign rights to exploit marine natural resources and to exercise jurisdiction over marine ecological and environmental protection in maritime areas beyond its territorial sea, including the contiguous zone and the

exclusive economic zone. Under international law, particularly the UNCLOS (Burke, 1996), as well as domestic legislation such as the Law on the Exclusive Economic Zone and the Continental Shelf of the People's Republic of China, China is granted sovereign rights to exploit marine natural resources within the contiguous zone, the exclusive economic zone, and other areas under its jurisdiction (Wang, 2021). In addition, China also has jurisdiction over aquatic ecosystems and marine environmental protection. However, because of the nature of cross-border maritime flows and ecological interconnection, any infringement that occurs outside China's jurisdictional waters and leads to environmental pollution and ecological damage in China's jurisdictional waters cannot be resolved solely through the identity of the owner of marine natural resources.

Additionally, there is a conflict between the public trust theory and China's legal tradition and legislative system. The public trust doctrine holds that the government, as a trustee, is entrusted by the public to protect the ecological environment and natural resources, including the ocean and grasslands. This principle requires the government to manage these trust assets for the public's benefit or specific purposes under the guidance of the trustee's fiduciary responsibility. In this case, the public is both the trustee and the beneficiary, enjoying the benefits related to the trust property, such as the ocean and other ecological resources (Zhang, 2011). Moreover, public trusts are an important mechanism for managing and overseeing family and business wealth. Its theoretical and practical foundation is deeply rooted in the principle of equity, the tradition of trust, and the unique ownership framework of the Anglo-American legal system. In contrast, China operates under a unique legal tradition and regulatory framework, which precludes the direct application of these principles. Although the design of the governmental claims system for MEED draws from the concepts of environmental civil tort litigation and civil consultation (Wang, 2016), the basic nature and objectives of this mechanism are based on public law, which is significantly different from the inherent private law characteristics of the trust theory.

From the perspective of private rights, using state ownership of natural resources as the theoretical basis for marine ecological environment-related claims may present significant challenges. This approach could hinder the ability to seek compensation for damage to the marine ecological environment, particularly in the exclusive economic zone. Furthermore, it may create a paradox in the institutional framework for managing state claims. Specifically, in the process of identifying the plaintiff, filing a lawsuit, conducting litigation consultations, and implementing a claim agreement, the principle of free processing in the civil law system cannot be adhered to; in contrast, these processes are essentially aligned with the principles of public law.

#### 4.2 The legal nature of claim litigation for MEED remains in controversy

The legal nature of litigation pertaining to claims for MEED remains a subject of theoretical controversy, which significantly

impacts the conduct of such litigation. The classification of these legal systems directly influences the identification of claimants, the jurisdiction of the competent court, the applicable legal principles, and the procedural order concerning public interest. Within the academic community, three prevailing perspectives exist regarding this topic. The litigation in question is categorized as public interest litigation. The primary theoretical foundation is that the object of the damage claims pertains to the social public interest concerning the marine ecological environment. The objective of the litigation is to reserve the marine ecological environment and fulfill other public welfare purposes. The initiating party is typically the marine regulatory authorities. The analysis encompasses various aspects, including the legal basis for the claim, which are rooted in the public litigation (Duan, 2016). However, some scholars argue that the lawsuit should be classified as private law litigation. Their rationale includes the assertion that the object of relief pertains to the national ownership of marine natural resources, which falls within the domain of private law ownership. The litigation's purpose, in this view, is to protect the state's ownership of marine natural resources, with the marine regulatory authority exercising authorities including initiating claim on behalf of the state (Xie, 2021). There are also alternative perspectives, such as the doctrine of hybrid litigation.

### 4.3 Challenges in determining the claimant for governmental claims for MEED, as well as the presence of overlapping authorities and ambiguous jurisdictional boundaries

The overlap of maritime administrative competencies, combined with the lack of legislative guidance on claimant eligibility, has resulted in redundancy in the exercise of claims authority, an inability to fulfill responsibilities, a lack of motivation, and constraints on the capacity to assert claims.

#### 4.3.1 Dispersion of the MEEA

Before the national institutional reforms in 2018, the SOA and the local Oceanic Administrations, as marine professional management institutions, carried out unified supervision and management of marine ecology, aquatic resources, and marine protected areas on behalf of the state. At the same time, relevant government agencies, including the Maritime Safety Administration and the Fisheries Agency, cooperated within their designated responsibilities. In addition, the authority to claim rights related to MEED also belonged to the specialized maritime administrative organs.

As part of the institutional reforms, the SOA was reorganized. At the central level, the MNR of the People's Republic of China retained the name "State Oceanic Administration," which is responsible for the ecological restoration functions of the former SOA, managing marine natural resource assets, and supervising ecological protection and restoration. The National Forestry and Grassland Administration took over the management of nature reserves previously under the jurisdiction of the former SOA.

Additionally, the MEE of the People's Republic of China assumed the marine environmental supervision duties of the former SOA, focusing on pollution prevention and the ecological protection of the national marine environment. Under the guidance of the MEE, a comprehensive law enforcement team for ecological environment protection was established to implement laws on pollution prevention and ecological protection. At the same time, the responsibilities of the Fisheries Bureau under the Ministry of Agriculture and Rural Affairs (MARA), the Maritime Administration under the Ministry of Transport, and the Military Environmental Protection Department remain unchanged.

Currently, the primary structure of the MEEA exhibits a distinctly dispersed pattern. Various departments are required to submit claims for MEED in accordance with their specific functions and authorities. This framework is indicative of a decentralized approach to supervision and claims processing. In alignment with territorial jurisdiction, administrative agencies are empowered to assert claims for different categories of MEED, utilizing their respective competencies in managing the environment. Article 4 of the Maritime Environmental Protection Law of the People's Republic of China (MEPL, amended in 2023) addresses the governance of the marine ecological environment. The MEE, the MNR, the Ministry of Transport, the Ministry of Fisheries, the Ministry of Maritime Police, and other administrative departments supervise and manage the marine ecological environment within their respective statutory powers and jurisdictions (refer to Table 5). According to the provisions of Article 114, paragraph 2, of the MEPL, the MEE is the main subject of litigation in cases where marine environmental pollution and ecological damage have caused significant losses to the country. For example, the Environmental Protection Agency is responsible for preventing and mitigating marine pollution caused by land-based pollutants and coastal engineering projects. The Maritime Safety Administration is responsible for the supervision and management of marine pollution caused by non-military ships within port areas and non-fishery and non-military ships operating outside the jurisdiction of port areas. Given the significant differences in the actual situation of marine ecological management in coastal areas, the governments of provinces, autonomous regions, and municipalities directly under the Central Government have established compensation mechanisms for local marine ecological construction in accordance with the provisions of the Environmental Protection Law and the administrative regulations of the State Council. The standing committees of 10 coastal provinces, such as Tianjin, Shandong, Zhejiang, Fujian, and Guangdong, have formulated local regulations on marine environmental protection, clarifying the administrative agencies and specific responsibilities for marine environmental supervision and management.

Most local governments adhere to the decentralized framework established by the MEPL, which is administered by various departments responsible for environmental protection, marine affairs, fisheries, and water affairs (Han and Chen, 2019). For instance, Article 41 of the Tianjin Marine Environmental Protection Regulations (revised in 2020) stipulates that, in

**TABLE 5** Division of competence for the supervision and administration of marine ecology and environment.

Administrative Authorities	Marine Ecosystems Administrative Regulatory Power
Ecological and Environmental Protection Bureau	Marine environmental protection and pollution prevention
Natural Resources and Planning Bureau	Responsibilities of owners of marine natural resources, ecological protection and restoration of marine ecosystems, marine coastlines, and islands
Transportation Bureau	Supervision pollution within the port areas, management vessels, and dealing with major maritime oil spill accidents, the oversight and examination of pollution incidents resulting from the activities of foreign vessels
Marine and Fisheries Development Bureau (or Marine and Fisheries Bureau)	Conservation and exploitation of fishery resources, aquatic resources, and aquatic wildlife
Agriculture and Rural Affairs Bureau	Protecting fishery resources, maintaining the ecological environment of fishery waters, aquatic wildlife, and investigation of fisheries pollution incidents.
China Coast Guard and its Branches	Supervision of marine construction projects and marine dumping of waste, and protection and utilization of nature reserves
Military Eco-Environmental Protection Bureau	Supervision pollution by military vessels, and handling of pollution accidents

instances where engineering activities and pollutant discharges result in harm to marine ecosystems, natural resources, and marine protected areas, the relevant administrative bodies are liable for claims. Furthermore, any financial compensation obtained must be allocated toward initiatives such as marine ecological protection, restoration, and the conservation of marine natural resources. An exception to this framework is found in Guangdong Province, where the Marine and Fishery authorities are designated as the responsible entities for claims related to MEED.

In addition, owing to the lack of a clear convergence system, the application of administrative law enforcement measures and The government's claims regarding marine ecosystems depend on the discretion of administrative authorities. This situation can lead to problems such as avoidance of administrative and regulatory obligations, as well as reluctance to pursue compensation claims. For example, there is potential for overlap in the jurisdictional scope of maritime areas governed by various maritime administrative authorities across different geographic regions, administrative tiers, and competencies (Huang and Jiang, 2013). This overlap may result in duplicate claims for damages to MEED arising from a single incident. In the previously referenced case of the Penglai 19–3 oil spill, the SOA received documents containing overlapping claims from the maritime authorities of Liaoning Province, Shandong Province, Hebei Province, and Tianjin Municipality, all of which were affected by the oil spill (Liu and Xia, 2012). Furthermore, the lack of effective coordination among the involved parties can lead to conflicts regarding the extent of damage, the quantum of claims,

and the supporting evidence. A notable issue is the absence of clear criteria for damage assessment, which has resulted in ambiguity surrounding the categorization of marine ecological resources and natural fishery resources. In the aforementioned oil spill incident, CNOOC identified the claims made by the Ministry of Agriculture for damages to natural fishery resources and those made by the SOA for damages to marine ecological resources as duplicated.

Additionally, the legal framework governing consultation procedures, the relationship between claims and litigation, the parameters of compensation, and the criteria for damage assessment is inadequately defined. This deficiency can lead to complications such as irregular consultation processes, ambiguous claim scopes, and insufficient remedies within claims agreements. In the case discussed above, claims for MEED were addressed through a negotiation process, yielding favorable outcomes. However, the lack of standardized legal provisions regarding negotiation and the scope of damage compensation led to divergent interpretations within the community concerning whether compensation had encompassed financial restitution for fishermen in affected areas. Local fishermen pursued legal action for environmental torts to recover their financial losses, but all such lawsuits were ultimately dismissed.

#### 4.3.2 Principal issues pertaining to claimants of MEED in China

In practice, the allocation of claims authority is typically determined by the distribution of marine administrative functions in accordance with regional jurisdiction. Claims related to MEED resulting from oil spills by commercial vessels are generally addressed by maritime departments. Conversely, damage to the marine environment and natural fishery resources caused by fishing vessels is typically handled by fishery agencies. Claims regarding ecological damage resulting from marine engineering activities and marine dumping are predominantly managed by marine authorities. Additionally, pollution of the marine ecological environment due to coastal engineering projects falls under the purview of environmental protection agencies.

The intricate nature of MEED causes, coupled with the overlapping administrative oversight of marine ecology and environmental issues, leads to a wide range of claimants (refer to Table 6). The primary entities engaged in these claims include administrative bodies tasked with ecological and environmental protection, exemplified by the case of Zhuhai Ecological Environment Protection Bureau v. Wen and four other defendants, which addresses liability for marine natural resources and ecological damage. Additionally, marine and fishery administrative agencies are involved, as seen in Weihai Marine Development Bureau v. Hu, which pertains to disputes over liability for marine natural resources and ecological damage. Agricultural and rural administrative organizations are also implicated, as illustrated by Zhenjiang Fishery Administration Supervision Division v. Korea Development Bank Investment Corporation. Local governmental entities, such as Xiamen Havicant District People's Government v. Xiamen Port Shipping Co., Ltd. and Xiamen Shipping Co., Ltd., further contribute to this landscape.



TABLE 6 The concurrent administrative supervision of MEE.

The claimants	The defendants	Grounds of action
Zhuhai Ecological Environment Protection Bureau	Wen and others	Marine natural resources and ecological damage
Weihai Marine Development Bureau	Hu, Xu	Marine natural resources and ecological damage
Zhenjiang Fishery Administration Supervision Division	Korea Development Bank Investment Corporation	Marine pollution and damage to fisheries resources
Xiamen Haicang District People's Government	Xiamen Port Shipping Co., Ltd., Xiamen Shipping Co., Ltd.	Marine environmental damage caused by maritime vessels

Moreover, there are instances of joint claims that involve multiple administrative agencies, including the Natural Resources Bureau, the Environmental Protection Agency, and the Department of Agriculture and Rural Affairs (Chen, 2019).

Marine ecological environment governance includes administrative investigations of infringements, prevention of illegal acts, administrative punishments and compulsory measures, litigation, formulation and implementation of ecological restoration plans, and the management of ecological restoration funds, among other key responsibilities. However, there is a clear lack of regulatory clarity regarding the eligibility of the administrative agency with these responsibilities as a claimant. Additionally, the division of claims power between central and local maritime administrative and supervisory agencies and the distribution of claims functions between administrative agencies at the same level but across different jurisdictions are still not fully defined. Furthermore, it is unclear whether other administrative entities can exercise the right to claim when qualified claimants fail to fulfill their obligations.

The jurisdiction of ecological environmental protection claim litigation is highly controversial, which affects judicial efficiency and limits the scope of ecological restoration litigation. This complexity arises from the fact that the impact of marine ecological pollution often exceeds administrative boundaries. A major challenge in jurisdictional disputes is determining the jurisdictional boundaries of the judicial territory, as administrative organs responsible for supervising the marine ecological environment have the right to file compensation lawsuits (Cai and Liu, 2014). The current legal framework is deficient in providing explicit guidelines for establishing jurisdiction, particularly whether it should be based on the location of ecological harm or the site of the incident that resulted in such harm. This ambiguity may lead to multiple claims being submitted by different management entities in different regions, resulting in potential claims duplication. In addition, the uncertainty of jurisdiction may cause executive authorities to be reluctant to file a lawsuit. When MEED affects ecosystems within the same or adjacent marine areas, there is a deficiency of explicit legal guidelines to direct how administrative agencies with distinct supervisory and management authorities should submit claims. It

remains ambiguous whether such litigation should be undertaken by ecological, environmental protection, agricultural, maritime, or other relevant departments as plaintiffs. It remains uncertain whether it should be initiated by a single administrative body, or whether it should be coordinated by a superior administrative authority. For instance, in cases concerning marine ecosystems and resources affected by the dumping of waste or oil spill incidents, various administrative agencies can collaboratively file a lawsuit. The uncertainty regarding the appropriate parties to initiate legal action complicates the determination of jurisdiction.

Claims filed by multiple administrative agencies against the same MEED may lead to conflicts and overlaps in jurisdiction, which could hinder the standard procedures for claims litigation or negotiation. For instance, both the Coast Guard and maritime authorities have regulatory powers over marine waste disposal and related violations, which may result in duplicated claims made by these agencies. In the context of claims litigation, dividing the claimants into co-plaintiffs or independent litigants can significantly affect the effectiveness of marine ecological damage relief measures.

An illustrative case concerning the confirmation of maritime claims involves the plaintiffs, namely, the Jiaying Natural Resources Planning Bureau, Jiaying Ecological Environment Bureau, and Jiaying Agricultural and Rural Bureau (hereinafter referred to as the three plaintiffs). The defendants in this dispute are Dominion Glory S.A. (hereinafter referred to as Glory) and Ellington Shipping Pte. Ltd. (hereinafter referred to as Ellington). A central issue in the case is the eligibility of the three plaintiffs to file claims, which is complicated by the different authorities responsible for investigating and seeking compensation for marine ecological pollution incidents.

The incident in question involved a collision involving the vessel Zorro, owned by Glory, and another vessel named Ellington, occurring in the waters of Jiaying Port, located in Zhejiang Province. The collision resulted in the release of 865 tons of base oil into the marine environment. The defendant argued that the incident qualifies a major oil spill in accordance with the stipulations outlined in the Regulations of the People's Republic of China on the Prevention and Control of Marine Pollution from Ships. They argued that only the central administration had the authority to investigate and deal with the incidents of the ship collision, thereby holding the exclusive right to submit the claim on behalf of the state concerning environmental protection. Consequently, they contended that the appropriate authorities to assert claim for MEED were the East China Sea Bureau of the MNR and the Marine Ecological Environment Division of the MEE. Additionally, they argued that claims related to the loss of fishery resources should be addressed to the Bureau of Fisheries and Fisheries Administration of the MARA, thereby indicating that local marine administrative agencies did not possess the legal standing to initiate such claims.

The Ningbo Maritime Court determined that the aforementioned provisions are applicable to administrative agencies responsible for investigating and managing ship pollution incidents across various levels, and therefore cannot be

employed to explicitly preclude claimants for pursuing their claims. The Court acknowledged that responsibility for the supervision and management of marine ecosystems and the environment matters, including investigations and claims related to marine pollution incidents, can be undertaken by different administrative agencies. Ultimately, the court determined that the three plaintiffs possessed the legal standing to seek compensation for damage to marine ecosystems and fishery resources caused by the oil spill, thereby permitting legal actions against the two defendants (see [Table 7](#)).

## 4.4 Inadequacies within the procedural framework governing national claims related to MEED

### 4.3.1 Ambiguity regarding the criteria for claimants to initiate claims for MEED compensation

Article 3 of the *Marine Compensation for Natural Losses and Marine Ecological Damage (MCNLMED)* outlines the scope of compensation for marine environmental pollution and marine ecosystem degradation. It stipulates “Significant Losses to the State” as a condition for compensation. The threshold for identifying significant losses is set at a total cost of MEED amounting to 300,000 yuan. However, it is important to note that MEED constitutes a violation of the public interest. Relying solely on a financial assessment of ecological damage to determine the legal grounds for a claim is inconsistent with the principles of ecological restoration and the state’s obligation to protect the marine ecosystem. Because of the inherent self-healing capacity of complex marine ecosystems, the impact of marine damage may not be immediately apparent. This could result in an incubation period for environmental protection and economic planning. This phenomenon highlights the ocean’s strong self-purification capacity, which can lead to delayed recognition of damage, allowing the consequences of environmental degradation in specific marine areas to evolve dynamically over time. As a result, the current standard may prevent claims related to ecological

damage, particularly those concerning marine public interests, such as the extinction of endangered marine species, which cannot be quantified monetarily. Additionally, damage caused by illegal fishing, the illegal disposal of waste, and other forms of harm to the marine ecological environment may not meet the aforementioned criteria ([Yang, 2023](#)). Consequently, such damage may not be addressed in a timely manner.

### 4.3.2 Consultation for MEED claims as an administrative procedure: controversy and lack of clarity regarding specific procedural frameworks

Following the occurrence of MEED, the MEEA initiates a consultation process aimed at marine environmental restoration. This process facilitates the resolution of MEED claims through a collaborative and interest-based consultation approach, characterized by high levels of participation and a non-adversarial atmosphere among stakeholders. It enables the negotiation of key issues, such as accountability for ecological and environmental restoration, thereby conserving national judicial resources and promoting more effective ecological recovery. However, there is a notable absence of explicit legal regulations regarding the legal nature of the claims consultation process and the preferential application of such consultations ([Cheng, 2017](#)). Furthermore, the academic community has yet to reach a consensus on these matters.

The legal characterization of consultations regarding claims for MEED is subject to varying interpretations, encompassing both civil and administrative actions. Some scholars argue that the MEEA, as a civil entity representing national ownership of natural resources, initiates the claims process, engages in civil actions, and enters into agreements with obligers based on principles of autonomy and equitable consultation. These agreements are considered civil contracts and lack compulsory enforcement unless validated by a court ([Lin and Zhang, 2023](#)). In the context of Chinese judicial practice, the consultation agreement is similarly regarded as a civil contract ([Chen and Xu, 2022](#)). Conversely, other scholars contend that the assessment and administrative investigation of MEED, the initiation of claims, and negotiations with the compensation obligers

TABLE 7 The identification of the claimants in controversy.

The claimants	The defendants	Legal grounds	The main disputes	The judgment
Jiaxing Natural Resources Planning Bureau and	Glory and Ellington	Compensation for marine damages linked to maritime collisions	The plaintiffs’ legal standing	Acknowledgement of the plaintiffs’ legal standing
Jiaxing Ecological Environment Bureau			The compensation pertaining to marine ecological harm and the impairment of fishery resources	\$41 million for marine ecological restoration
				\$2.1454 million for marine fisheries losses
Jiaxing Agricultural and Rural Bureau			Parties liable for compensation	\$2.4 million for ecological damage surveys and assessments
			Establishment maritime lien	\$1 million for the survey and assessment of fisheries losses

regarding MEED restoration and compensation are primarily administrative actions, which result in an administrative contract (Wang Z, 2023). Additionally, it has been suggested that, given the distinct procedures involved in MEED compensation consultations, the administrative investigations and related actions should be categorized as administrative acts, while voluntary negotiations should be classified as civil legal acts (Liu and Hu, 2019).

#### 4.5 Lack of legal regulations regarding the sequence of application and the interplay between enforcement authorities and governmental claims of MEED

There is a significant lack of legal regulations that delineate the sequence of application and the interplay between enforcement authorities and governmental claims related to MEED. Marine Ecological Environment Administrative Law Enforcement and Claims are key responsibilities for the protection of the marine ecological environment. The primary objective of MEED claims and the enforcement of administrative law is to preserve the marine ecological environment and rehabilitate areas that have been adversely affected (Mei, 2022b). There is some overlap among the relevant stakeholders, and there is a notable absence of legal provisions outlining the order of application and the relationship between enforcement powers and governmental MEED claims. The determination of how to select and implement these measures is largely at the discretion of administrative agencies. Given the public nature of the marine ecological environment, it is imperative that various remedial approaches be systematically designed and coordinated. The sequence of these approaches must be clearly defined; otherwise, there is a risk that administrative authorities may evade their supervisory responsibilities (Hu, 2023).

Initially, there is a correlation between the administrative actions aimed at mitigating the effects of marine ecological and environmental hazards and the remedial objectives of the MEED claim system. The primary aim of the governmental claim system concerning MEED is to mandate that the offending party assumes legal responsibility, in addition to assessing both direct and indirect property damages resulting from the MEED incident. In China, the administrative measures associated with addressing MEED include directives to eliminate environmental pollution, mandates to rectify environmental conditions, administrative penalties such as fines, and enforcement actions related to ecological restoration through proxy performance. These administrative interventions, which encompass the elimination of environmental pollution, the implementation of remedial measures, and proxy performance, serve as remedies for the degradation of the marine ecological environment (Leng and Wang, 2024).

Article 42 of the LASAU stipulates that individuals engaged in reclamation activities without proper authorization or under fraudulent pretenses shall be required by the MEEA to restore the unlawfully occupied marine area to its original condition, alongside fulfilling other ecological restoration obligations. Furthermore, any

illicit gains acquired through these unlawful actions will be subject to confiscation, and offenders will incur fines ranging from 5 to 15 times the standard charges for sea area utilization during the period of illegal occupation. In instances where such illegal occupation results in damage to the marine ecosystem or to the flora and fauna resources, administrative authorities are empowered to intervene, prevent the ongoing offense, and require the restoration of the marine ecological environment.

Secondly, in cases of damage to the marine ecological environment, there is a correlation between the entities responsible for marine ecological and environmental administration and those pursuing compensation claims. As stipulated in Article 3 of the Supreme People's Court's guidelines regarding the adjudication of disputes related to compensation for damage to marine natural resources and the ecological environment, as well as Paragraph 2 of Article 114 of the MEPL, the entities eligible to file claims for MEED are the administrative bodies tasked with the oversight and management of the marine environment. Furthermore, Article 4 of the MEPL delineates that the principal entities involved in marine administrative law enforcement include the marine administrative department and other administrative bodies endowed with supervisory and management authority over the marine environment. Following the reform of marine administrative institutions, the agencies responsible for marine law enforcement now include maritime administrative agencies, fishery authorities, and the Coast Guard, among others.

At the same time, there is potential conflict between the negotiation procedure and the traditional administrative execution mechanism. Administrative coercion has legal effect, including binding force and enforceability. It negates the necessity of obtaining the consent of the administrative counterpart, so that the administrative counterpart is required to comply. The administrative counterpart can present evidence and express opinions during the administrative investigation or hearing, but the decision regarding administrative compulsory measures is made unilaterally by the administrative organ. Therefore, because of the limited participation of administrative counterparts, there may be resistance to administrative law enforcement, which could hinder its effective implementation (Cheng and Qiu, 2022). Administrative enforcement measures prioritize efficiency and are rarely subject to the statute of limitations, which is conducive to the rapid implementation of emergency preventive measures to address environmental health and sanitation incidents, thereby reducing the escalation of such damage. By contrast, the consultation procedure represents a more flexible and equitable procedural framework, emphasizing comprehensive and fair communication between the parties about the implementation of responsibilities and ecological restoration plans. In this way, the responsible party can present favorable factual evidence and express their views when choosing the restoration plan, thus better protecting their legitimate rights and interests, including participation rights and economic interests. This can reduce resistance from the responsible party and enhance the effective implementation of the consultation plan.

However, it must be noted that the consultation process is typically more protracted and less efficient compared to administrative law enforcement.

Thus, the conflict between the consultation procedure for MEED and administrative law enforcement manifests primarily in two dimensions. First, there is no clear stipulation regarding the application, which may lead to the abuse of discretion by administrative organs. According to the MEPL, Fisheries Law, Marine Police Law, and other relevant laws and regulations, the administrative law enforcement measures of marine administrative departments mainly include administrative penalties, compulsory measures, and enforcement. In practice, these measures often take the form of fines, recovery instructions, requests for remedial action, and orders to compensate for losses. Within the framework of negotiation, the responsible party is also obliged to take remedial measures. For example, when administrative agencies illegally construct coastal structures for restoration, there is a lack of clear legal provisions on whether such enforcement includes the restoration of marine ecosystems. In the absence of clear legal provisions, the administrative organ can exercise discretion. If only punitive measures, such as fines, are taken, the damage to the marine ecosystem may not be fully resolved, thereby undermining national interests. Alternatively, the administrative organ may choose the negotiation procedure to avoid its legal supervision responsibilities. Secondly, owing to the overlap between the administrative behavior subject and the negotiation subject, the administrative organ may use its dominant position or abuse its administrative power during the negotiation process. This imbalance in status will hinder the true implementation of the principles of equality and autonomy and ultimately damage the rights and interests of the administrative counterpart.

#### 4.6 The possibility of conflicts arising between national legal frameworks governing claims for MEED and international treaties

There is a notable tension between domestic frameworks for claims related to MEED and international treaties, which may lead to jurisdictional conflicts, legal application disputes, and inconsistent judicial outcomes. Such discrepancies are detrimental to the protection of China's maritime rights and interests. For instance, the UNCLOS primarily emphasizes the prevention and control of marine environmental pollution, while insufficiently addressing the prevention of MEED and the processes of ecological restoration. In contrast, China's Civil Code and Environmental Protection Law explicitly establish liability for ecological damage. Article 114 of the MEPL stipulates that the initiation of a claim requires the presence of MEED that has resulted in significant losses to the state. Consequently, it becomes challenging to seek redress for marine rights and interests, such as biodiversity and ecological restoration, through the liability mechanisms outlined in international treaties.

Moreover, conflicts also arise between China's domestic legislation and international treaties regarding the scope of claims

for MEED and the modalities of liability. A prominent example of this is the disparity in compensation scope and liability limitations concerning oil pollution from vessels. The Supreme People's Court's provisions on various issues related to the adjudication of disputes over compensation for damage to marine natural resources and the ecological environment, as well as the Measures for Claiming State Losses for MEED, delineate the scope of compensation claims to include losses incurred during the restoration period. This restoration period loss refers to the decline in marine natural resources and ecological service functions from the time of damage until partial or full restoration occurs. The assessment of restoration period losses typically relies on predictive data models rather than actual loss costs. Additionally, the costs associated with preventive measures and surveys encompass not only incurred expenses but also reasonable future expenses that are anticipated. These stipulations directly conflict with the compensation for direct losses as outlined in international treaties, such as the 1992 Protocol to the International Convention on Civil Liability for Oil Pollution Damage and the International Convention on Civil Liability for Bunker Oil Pollution Damage (Liao and Ye, 2022). For instance, in the case of compensation for oil pollution damage resulting from the 2002 Tasman Sea Vessel Oil Spill, the court upheld the Tianjin Municipal Bureau of Oceanography's claim for the loss of marine environmental capacity. Conversely, in the 2019 case involving the Glory Company, the court determined that the compensation scope included costs for marine ecological restoration, loss of fishery resources, and investigation and assessment costs, while excluding claims for the loss of marine environmental capacity and ecological service functions. Consequently, the compensation available for MEED caused by oil spills from foreign vessels is less extensive than that for domestic vessels.

To address these issues, it is essential to establish a theoretical foundation grounded in public law, reflecting the public nature of marine ecological systems and environmental concerns. Concurrently, it is crucial to advocate for enhancements to the claims subject system. In light of the ongoing reforms within China's marine administrative law enforcement agencies, a primary model for the centralized exercise of claims should be progressively developed. It is essential to clarify that the exercise of the right to claim is contingent upon the loss of national interests resulting from violations of the marine ecosystem and environment. Furthermore, improvements to the claims consultation system are necessary, alongside the establishment of a coherent relationship between administrative law enforcement, claims processes, and international cooperation.

## 5 A framework for enhancing the government claims system pertaining to MEED in China

The legal framework governing government claims for MEED in China is neither systematic nor comprehensive. There is a notable deficiency in legal foundations, as few laws, regulations,



or local ordinances address this issue. The primary legislation in this domain is the MEPL, supplemented by a limited number of local regulations. However, other relevant departmental regulations, judicial interpretations, and normative documents occupy a subordinate legal status. Additionally, the supporting mechanisms for claims assessment and investigation are inadequately developed. There is a conspicuous absence of clear and specific normative guidance regarding the identification of the principal entities involved in government claims, the processes of claims litigation, consultation, administrative enforcement, and the articulation of claims, among other practical considerations.

Furthermore, international cooperation concerning claims for MEED has focused mainly on oil pollution incidents caused by ships, indicating a significant gap between international treaties and domestic legal frameworks in addressing other forms of marine ecological damage. It is necessary to improve the current legal framework and consider the future establishment of a unified system for claims related to ecological damage that is applicable to both land and sea. This system should include standardized provisions on claimants, procedures, and related aspects. The MEPL should be improved, including the establishment of a special chapter to delineate the national claims framework related to MEED. This chapter would cover various elements, such as the power to make claims, the parties involved, legal components, procedural guidelines, legal consequences, the interaction between claims and administrative law enforcement, and compensation funds. In the future, a comprehensive statute addressing Ecological Environment Damage Compensation should be developed to standardize the governmental claims process applicable to all instances of ecological damage. In accordance with the principle of coordination between land and sea, efforts should be made to gradually unify the claims system for marine and terrestrial ecological environment damage, while simultaneously integrating the legal standards governing this claims system, despite the fact that marine administrative functions are currently managed by various departments. Furthermore, it should be explicitly stated that, in the absence of specific regulations governing claims for MEED, judicial interpretations and legislative regulations pertaining to land-based ecological and environmental damage compensation may be utilized. Additionally, the establishment of specific provisions on claims for MEED should delineate a comprehensive procedural framework for the verification of case evidence, the filing of claims, the initiation and cessation of claims, and the processes of investigation, claim consultation, and litigation. Concurrently, efforts should be made to harmonize domestic legislation with international regulations concerning claims for MEED. There is a commitment to actively engage in initiatives and the formulation of rules aimed at the governance of international marine ecological issues.

## 5.1 The conceptual foundation of the system is grounded in the principles of public law

First, the framework of the national claim system for MEED is based on the public law responsibilities of the state. In accordance

with domestic public laws, including Constitutional Law and the Environmental Protection Law, as well as international agreements such as the UNCLOS, the state is obligated to fulfill its public legal obligations. These responsibilities include preventing marine environmental pollution, implementing emergency measures for marine environmental crises, restoring marine ecosystems, and maintaining the marine ecological environment. The state must uphold these legal responsibilities and cannot relinquish or delegate them to other entities. To effectively protect the marine environment, states must take various measures, including legislative, administrative, and judicial actions. It is necessary to strengthen the legislative framework, clarify administrative responsibility for the management and protection of the marine environment, and formulate specific legislation to address marine pollution. The judicial system concerning marine environmental issues must be continuously improved, including the types of litigation allowed, the parties concerned, the standards of judicial review, litigation procedures, environmental impact assessments, and the establishment of compensation funds.

In the realm of marine administrative law enforcement, it is essential to clarify the administrative responsibility for the marine ecological environment, ensure the legitimacy and rationality of administrative actions, innovate administrative supervision measures, and enhance the professional quality of administrative personnel. Legislative, administrative, and judicial powers should be coordinated and aligned with the goal of environmental protection, and the state must earnestly fulfill its environmental protection obligations. National claims for MEED are designed to address specific instances of such damage, thereby compensating for the limitations of traditional regulatory methods (such as administrative orders). These claims and litigation processes function as a mechanism for fulfilling public law responsibilities related to marine environmental protection.

China's maritime sovereignty encompasses its ultimate authority over territorial waters, exclusive political power, and external independence and autonomy. This includes its internal maritime jurisdiction, external independence, equality, and the right to self-defense in maritime matters (Yang, 2024). Based on its sovereignty over the territorial sea, China has the authority to supervise and manage natural resources and marine ecosystems within these waters. In accordance with UNCLOS and the relevant laws of the People's Republic of China concerning the Territorial Sea and the Contiguous Zone, the Exclusive Economic Zone, and the Continental Shelf, China asserts sovereign rights over adjacent zones, the exclusive economic zone, the continental shelf, and other maritime areas beyond its territorial sea (Zhou, 2012). This includes the coastal state's maritime jurisdiction, maintenance of legal order, protection of marine ecosystems, marine scientific research, and construction of offshore artificial installations, among other public powers (Xue, 2005). Through its sovereignty over territorial waters and sovereign rights over maritime jurisdiction, the state has the authority to supervise and manage the ecological environment within its jurisdiction (Mei and Hu, 2017). At the same time, Articles 9, 10, and 26 of the Constitution of the People's Republic of China define the construction of ecological civilization as a

fundamental national objective, asserting that the enhancement of the ecological environment protection system is a legal obligation of state administrative bodies. Furthermore, Article 192 of UNCLOS establishes that states are required to protect and preserve the marine environment. Administrative bodies are empowered to oversee and manage marine natural resources on behalf of the state, encompassing responsibilities such as risk prevention for the marine ecosystem and environment, planning for natural resources, emergency response related to MEED, conducting investigations into marine environmental issues, disclosing marine environmental information, facilitating consultations regarding marine environmental matters, executing marine ecological restoration, and managing compensation funds (Mei, 2017). The territorial extent of China's governmental claims regarding MEED covers all maritime regions under its jurisdiction, including the water surface, water column, seabed, and subsoil of both inland waters and the territorial sea. This extends to adjacent zones, the exclusive economic zone, the continental shelf, and other maritime areas subject to China's jurisdiction beyond its territorial sea. However, it is important to note that claims for ecological damage in maritime areas outside China's territorial sea should prioritize the restoration of the marine ecological environment rather than focusing solely on compensating the state for economic losses.

Second, the institutional design in question is fundamentally aimed at safeguarding the public interest in the marine ecological environment, which embodies key attributes of public law. The oceans and their ecological environments constitute significant public assets. At the same time, the ecological value of the ocean impacts the environmental interests of various unspecified social entities. These values are integral to the public interest belonging to the global community and humanity as a whole. The national claim system established for MEED is intended to protect the public interest, rather than addressing private interests such as individual property loss or personal injury resulting from marine pollution or ecological degradation. Therefore, the essence of the government claim system for MEED is a public law system, driven by the state's environmental legislation and legal practices to fulfill its environmental protection obligations. When the marine ecological system and environment are compromised, the relevant administrative authority, acting on behalf of the state and in accordance with public property rights associated with natural resources (Liu, 2020) and environmental protection obligations, may pursue claims through various means such as compensation negotiations, litigation, and other avenues (Wang, 2023). These actions aim to remedy the harm inflicted upon the marine environment and protect the public interest in the marine ecosystem and the sustainable development of maritime resources (Li, 2023).

Third, the implementation of the governmental claim system for MEED is constrained by public law, especially administrative law. This system must adhere to the fundamental principle of active administration. According to the theory of active administration and performance administration within the framework of modern administrative law, administrative organs must transition from passive to active roles in managing social issues such as

environmental protection, economic development, and social welfare. In this context, administrative organs should actively exercise their management functions, implement various regulatory measures, and maintain social order. Consequently, the administrative agencies with legal power should take proactive administrative actions such as advocacy and negotiation in accordance with legislation and regulations or legal authorization to contribute to the protection of the marine ecological environment, the safeguarding of individual basic rights, and the promotion of sustainable development. Any institution not explicitly authorized by law may not file a claim. At the same time, the administrative body responsible for the claim must strictly follow legal procedures, and any illegal claim that harms the personal property and other legitimate rights of the obligers must bear administrative legal responsibility. Additionally, the government advocates compliance with administrative law principles, including safeguarding legitimate expectations and the principle of proportionality (Jiang, 2005).

The administrative entity is obligated to execute its actions in good faith while protecting the legitimate and reasonable interests of the affected party, arising from their reliance on administrative actions, in a manner that is appropriate. For instance, during the negotiation phase, authorities must refrain from coercing the obligated party into consent through deceit, intimidation, or misleading representations. In accordance with the principle of proportionality, the administrative measures implemented should inflict minimal harm, and there should be a rational alignment between the actions taken and the administrative objectives. The assessment of restoration responsibility for MEED, along with the development and execution of restoration plans, must be based on the factual context of MEED. These actions should also align with the facts, nature, circumstances, and degree of social harm resulting from the responsible party's illegal actions. This framework holds significant guiding value for the development and practical implementation of the MEED governmental claim system in China. First, it establishes that the protection of the marine ecological environment is a statutory obligation of administrative agencies. Consequently, claims related to MEED should be pursued by the administrative entities empowered with the legal authority to safeguard marine ecosystems and natural resources. Second, administrative authorities responsible for marine ecological claims must proactively engage in administrative actions; failure to do so may constitute administrative inaction. In such cases, procuratorial bodies and NGOs are authorized to initiate public interest litigation. Third, the legal characterization of measures for claiming MEED is classified as an administrative act. Therefore, the identification of consultation system participants, along with the delineation of rights and obligations, procedural frameworks, and execution of consultation agreements, must adhere to the fundamental principles of administrative law and the relevant stipulations of China's administrative and administrative litigation law. Lastly, given that the prevention and management of marine environmental pollution, as well as the execution of marine ecosystem restoration, fall within the legal jurisdiction of administrative authorities, administrative penalties, enforcement

actions, and other administrative remedies take statutory precedence.

Governmental claims for MEED are based on the public law theory of the state's obligation to safeguard marine ecological public interests. These propositions help resolve conflicts and inconsistencies that may arise in practice. The process of consulting on claims related to MEED is classified as a standard administrative act. From the plaintiff's perspective, the subject of the lawsuit is an administrative organ entrusted with the legal authority of marine environmental protection, which exercises public power on behalf of the state and meets the standards of administrative contracts. The analysis of the objectives behind these requirements reveals that negotiations on environmental compensation aim to protect public environmental welfare. The marine ecological environment includes not only the economic value of marine natural resources protected by civil law but also the ecological value related to biodiversity and other public interests. Therefore, it is necessary to ensure that compensation aligns with the economic value of the country's environmental interests, with a focus on ecological restoration and the rehabilitation of damaged natural resources, thus adhering to the principle of environmental public welfare. In terms of the distribution of rights and obligations within the negotiation agreement, it is classified as an administrative contract. Initially, whether to begin the consultation is determined by the administration, which will assess whether to proceed based on a preliminary investigation of ecological damage. During the negotiation process, the administrative subject holds administrative priority and certain discretion. A fundamental difference exists between the content of the negotiation and the typical citizen equality in contract agreements. For instance, if the administrative agency determines that the obligation is not fully met, resulting in ecological damage, it reserves the right to terminate the agreement and may take coercive measures against non-compliance with contractual obligations. Furthermore, the scope of the claim includes costs relating to pollution removal, ecological restoration, and ecological damage investigations, which are beyond the scope of the negotiations. Administrative agreements carry legal binding authority. If the debtor fails to fulfill its obligations, the claimant has the right to initiate administrative coercion and compulsory actions. However, since the legal nature of the agreement remains controversial, claims against MEED require judicial confirmation by the people's court. Although this confirmation serves as a mechanism to ensure the enforcement of civil contracts in China, it is not a mandatory requirement. This has led to numerous cases in which non-judicial confirmations were not administratively enforced and subsequently entered the litigation process, significantly hindering the efficiency of ecological restoration. Classifying claims as administrative contracts can mitigate the recurrence of these issues.

At the same time, the national claim framework for MEED integrates elements of private law, illustrating the convergence of public and private law principles. The negotiation process is based on civil and commercial law and emphasizes fair negotiation. This process begins when the responsible party voluntarily participates

after the administrative authority issues a consultation request. Compensation amounts, ecological restoration methods, and other content are negotiated. Additionally, the claim procedure is constructed in accordance with China's civil procedure law. Typically, the claiming authority files legal proceedings on behalf of the entitled party for damages to marine natural resources and ecosystems, seeking compensation. In certain cases, adjudication is based on judicial norms related to civil litigation, particularly environmental torts, resulting in civil judgments.

## 5.2 Clarifying the nature of litigation pertaining to claims for MEED and its relationship with other forms of litigation

This paper asserts that litigation represents a distinct category of public interest litigation, specifically aimed at protecting the public interest in the marine environment through negotiation or legal proceedings, while simultaneously penalizing unlawful activities that adversely affect the marine ecological system (Guo and Yu, 2022). This form of litigation serves as a mechanism for administrative agencies responsible for marine ecological regulation to safeguard both national and public interests. It is characterized by its administrative nature and its approach to safeguarding public interests through private law.

There are three primary justifications for this assertion. First, national interests are encompassed within the broader framework of social public interests (Qin and Wu, 2020). Although there are some differences in litigation rules, the scope of claims, and types of legal liability between claims litigation and public interest litigation, both share a common trajectory. Second, the theory of state ownership is inapplicable to maritime areas, such as contiguous zones and exclusive economic zones. Moreover, this theory does not extend to claims for damages related to public goods, including the oceanic atmosphere and natural resources such as migratory fisheries. Thirdly, the proposed claim system can more effectively address the limitations imposed on plaintiffs within the context of administrative litigation in China. Additionally, the governmental claim litigation system does not hinder other parties from initiating litigation related to marine pollution and other tortious damages (Ling, 2024). For instance, offshore residents who suffer from economic losses due to infrastructure pollution resulting from the illegal dumping of contaminants can still seek relief through private law mechanisms pertaining to environmental tort damages.

Simultaneously, it is advisable to elucidate the nature by the National People's Congress or through the establishment of the Ecological Environmental Protection Code. The environmental public interest litigation necessitating the establishment of a comprehensive legal framework. In the development of this system, it is imperative to take into account the exclusive jurisdiction of China's maritime courts, as well as the applicability of international treaties in cases involving ecological and environmental damage caused by oil and fuel pollution by vessels and other specific circumstances. Furthermore, the framework for

litigation concerning ecological and environmental damages should be integrated into claims processes. It is also essential to introduce legal provisions, principles, and other procedural rules.

### 5.3 Enhancing the primary framework for claimants in relation to governmental claims associated with MEED

Strengthening the framework for managing MEED compensation helps more accurately identify the entities entitled to make claims, quantify such claims, and confirm their validity. This improvement helps resolve disputes over authority and promotes the expedited initiation of claims. Additionally, it reduces the claim processing time and fosters a comprehensive approach to remedying the damage caused to marine ecosystems.

Government requirements related to MEED demand a high degree of professionalism and comprehensiveness. Claimants must possess expertise in various fields, including the investigation and assessment of MEED, the formulation of claims, the selection of remediation options, the estimation of remediation costs, and the evaluation of outcomes. Legal expertise in judicial procedures, such as negotiation and litigation, is also essential. To improve the effectiveness of MEED-related national claims, it is necessary to rationally allocate the administrative authority of these claims and optimize the designation of claimants (Zhang W, 2020). Under the framework of decentralized administrative supervision of the marine ecological environment, China's ecological environment damage compensation system offers valuable lessons. This approach should involve the wise integration of claim authorities, gradually progressing toward more centralized implementation of claims.

Firstly, in the absence of revisions to the China MEPL and other relevant legal frameworks, and considering prior practical experiences related to claims for damages to marine ecosystems, the subject matter of such claims can be categorized into three primary groups: marine ecosystems, minerals and other natural resources, and natural fishery resources. The principal claimants responsible for the claim are determined based on the specific subject matter associated with these three categories. To establish a centralized governmental claims model concerning the marine ecosystem and natural resources, it is essential to identify two primary components: the Ecological Environment Protection Administrative organs and the Natural Resources departments. These entities will serve as the principal bodies in the claims process, with supplementary involvement from Agricultural and Rural Affairs agencies and coordination from relevant departments such as Maritime, Coast Guard, and Transportation. It is imperative to clearly delineate the responsibilities of various administrative authorities in relation to claims concerning MEED. For the loss of marine environmental capacity and ecosystem service functions, the administrative department of ecological environment protection should take the lead. Conversely, if the damage primarily affects mineral resources and other elements of natural resources, thereby reducing their economic value, the natural resources administration

will prioritize claims. In the case of adverse effects on natural fishery resources, agricultural and rural affairs agencies will be responsible for initiating compensation negotiations and legal claims.

Given the diversity of damages that may be caused by similar marine ecological pollution incidents, it is recommended that claimants combine their claims and conduct collective bargaining or litigation as a unified plaintiff. Furthermore, it is recommended that the courts consolidate these cases to leverage the expertise of the relevant administrative agencies, thereby improving the overall efficiency of the claims process.

The second aspect involves delineating the geographical jurisdiction related to the subject of the claim. According to administrative jurisdiction, the Ministry of Ecological Environment Protection (MEEP) and the MNR primarily manage marine claims for sea areas directly under the State Council and inter-provincial waters. They are also tasked with overseeing national claims concerning MEED (Peng, 2024). Conversely, provincial ecological environment protection and natural resources agencies are mainly responsible for handling claims related to MEED incidents that cause significant losses within the province. At the municipal level, the MEEA exercises the right of claim for the sea areas within its administrative jurisdiction.

The MEE has integrated marine ecological protection and supervision functions formerly under the SOA to achieve the integrated protection of land and marine ecosystems. It is expected that the MNR will collaborate with other marine administrations to consolidate the expertise required to investigate, assess, and rehabilitate MEED, thereby contributing to the achievement of claims objectives. Claims related to MEED occurring in waters under the jurisdiction of the State Council or in inter-provincial waters are managed by the MEE, and its regional agency, the East China Sea Ecological Environment Supervision and Administration Bureau of the Taihu Lake Basin, is responsible for carrying out specific tasks. Provincial and municipal ecological environment administrative agencies are responsible for filing claims on behalf of the MEE within their designated administrative jurisdictions. This process should be promoted through the collaboration and support of all relevant departments. Enhancing coordination and information sharing among claimants in the marine environment will help ensure the legitimacy, rationality, and scientific validity of government claims (Chen, 2019).

In the future, it is imperative to establish a cohesive system for claims related to MEED, with the administrative body responsible for ecological and environmental protection consolidating the authority to process such claims. While MEED exhibits unique characteristics, it fundamentally constitutes a category of ecological environment damage that shares similarities in terms of the infringing parties, harmful actions, legal repercussions, and available remedies. The Reform Plan for China's Ecological Environment Damage Compensation System has delineated the objectives, stakeholders, consultation and litigation processes, legal implications, and other institutional components pertinent to ecological environment damage compensation, thereby amassing substantial practical experience (Zhu, 2016). Prior to the



implementation of the unified Law on Compensation for Damages to the Ecological Environment, claims for compensation related to MEED could draw upon the aforementioned components of the system.

## 5.4 Improvement of the procedural framework for governmental claims consultation within MEED

### 5.4.1 Clarification of the legal conditions to initiate the claim procedure

Initially, these procedural provisions mandate that upon the discovery or receipt of a claim case clue, the responsible party must conduct a preliminary verification within 30 days. If it is established that MEED has occurred, the claimant is required to file a claim promptly within 15 days and initiate the claims procedure. Furthermore, the specialized regulations explicitly outline the statutory conditions under which a claim may be terminated following an investigation. If any of the following statutory conditions are met, the claimant may refrain from initiating the claims procedure or, if already initiated, may terminate it: (a) the obligation to provide compensation has been fully and timely fulfilled; (b) all claims have been adjudicated by a valid legal instrument concerning MEED; (c) MEED is deemed negligible and does not warrant compensation; (d) the obligation to compensate has been extinguished, or the individual liable has deceased without any assets available for execution; (e) other circumstances under which the claims procedure cannot be initiated. Lastly, once a claim has been initiated, the claimant is obligated to promptly assess the scope of ecological damage, the extent of the damage, and the determination of compensation obligations. This includes conducting an investigation into the ecological damage and, based on the investigation's findings, deciding whether to proceed with claim consultations.

Secondly, the legal conditions that need to be established include the infringement of legislation, the punishments of ecological environmental violations in marine areas, and the resulting damage to national interests. In addition, the urgency of addressing MEED must also be considered. This consequence constitutes an important legal premise advocated by the government and must align with the original intention of maintaining marine ecology. Government claims require legal procedures such as consultations or litigation, which may be delayed and can impede the timely provision of preventive and remedial measures (Lv, 2016). Consequently, in instances of sudden MEED, it is imperative to implement prompt and effective administrative emergency law enforcement actions, such as ordering the cessation of illegal activities to mitigate risks and prevent the escalation of damage. Furthermore, in cases where the consequences of MEED are minimal, administrative organs should take measures such as administrative punishment and alternative performance, forcing the infringers to bear the responsibility of marine ecological restoration without formal litigation procedures.

### 5.4.2 Clarifying the legal nature of MEED governmental claims consultation

From a legal perspective, the negotiation of compensation for environmental protection constitutes an administrative act. The compensation agreement itself is considered an administrative agreement and has the effect of enforcement from the date of signing (Chen, 2014). The primary purpose of the consultation process is to protect the public's interests related to the marine environment and to perform administrative duties related to the protection of marine ecosystems. The publicity of these interests and administrative responsibilities cannot be arbitrarily ignored, making the consultation system a typical example of the framework of public law. The primary component of the consultation system is the MEEA, which must adhere to the fundamental principles of administrative legitimacy and rationality in its consultation practices. This adherence serves as both a prerequisite and a safeguard for the legitimacy of compensation agreements. Although environmental impact assessments allow certain discretion in choosing ecological restoration strategies, compensation obligers can submit relevant materials and information to the administrative department during the consultation process and clearly express their requirements and opinions. Both parties are encouraged to engage in negotiations on equal terms regarding the compensation amount and methods of restoration. This approach aligns with the transformation of contemporary national governance from rigid law enforcement to flexible law enforcement and reflects innovative administrative practices that emphasize extensive participation, interaction, fair negotiation, and independent selection of marine ecological environment protection methods (Peng, 2020). The preliminary investigation before the consultation and the subsequent implementation are characteristics of the administrative act, with the party liable for compensation assuming the role of the administrative counterpart. In addition, the agreement includes elements related to administrative law, such as the details and scale of MEED, the initiation and duration of marine ecological restoration efforts, the administrative responsibilities involved, and the methods and time frame for fulfilling compensation obligations.

### 5.4.3 Improvement of the specific procedural provisions regulating the operation of MEED governmental claims consultation

Prior to the formulation and amendment of pertinent legal regulations, it is advisable to consider the stipulations outlined in the Pilot Programme on the Compensation System for Ecological and Environmental Damage (2015). This program establishes the legal recognition of the entities entitled to compensation and those obligated to provide it, delineates their respective rights and responsibilities, initiates a consultation process, and specifies the legal implications of the consultation agreement as well as the measures for its execution, among other provisions.

It must be recognized that the negotiation process of MEED is a preliminary step before the claim litigation. After the occurrence of environmental impact events, the marine environmental supervision and management department should prioritize the

performance of administrative supervision responsibilities in accordance with the principle of administrative supervision priority, especially in the field of consultation. The consultative framework could draw on the expertise of maritime administrations in areas such as MEED and the Compensation Assessment and Recovery Initiative. The implementation of flexible administrative strategies during the consultation process can significantly mitigate adversarial interactions between the involved parties (Li, 2019). Furthermore, the determination of compensation amounts and modalities should take into account the preferences of the compensation obligers, thereby enhancing their motivation to adhere to the consultation agreement. Additionally, the consultation process avoids protracted evidence-gathering and judicial proceedings, thereby reducing the financial burden and improving efficiency. Only when all administrative remedies, including consultation, prove ineffective in resolving emergency environmental measures should legal action be taken to claim compensation for emergency environmental measures.

The initiation of consultations can occur through two primary mechanisms. The first mechanism involves the claimant independently initiating the consultation when the requisite statutory conditions are met (He et al., 2018). These conditions include the completion of an investigation into ecological damage, the evaluation and assessment of such damage, and the formulation of a preliminary ecological restoration plan. Alternatively, consultations may also be initiated at the request of the compensation obligers to ascertain the necessity of initiating a claim against the responsible party.

Secondly, the procedures for notifying about the consultation and the relevant time frames are stipulated. In accordance with the Administrative Provisions on Compensation for Damages to the Ecological Environment, the Administrative Licensing Law of the P.R.C., and the Administrative Penalty Law of the P.R.C., the administrative authorities making the claim are generally required to provide consultation notification letters to the obligor at least seven working days before the consultation meeting. The notification must specify the time and place of the meeting, the procedure to be followed, and the form of consultation. Damage compensation matters involving major public interests or significant social impact may require publication for consultation notice. Furthermore, the compensation obligers shall agree to negotiate in writing within 3 days; failure to respond within the statutory time limit will be interpreted as a refusal to participate in the consultation. The compensation obligers must submit a written consultation request to the relevant party. If the request is sent through a registered letter, the postmark date will be considered as the official submission date. The entity responsible for the consultation must, within 5 days of receiving the application, establish the time, location, and format for the consultation, and must notify the compensation obligor at least seven days in advance of the meeting.

Thirdly, the content and form of the consultation meeting are clarified. The meeting will focus on the details of the repair plan, including the timeline and duration of the start-up repair work, as

well as the way and duration of fulfilling obligations. The consultations will not include factual matters relating to damage to marine ecosystems, such as the existence and extent of ecological damage, and other basic information. The meetings will be organized by a designated administrative authority or may be commissioned by a third party, such as a law firm or another intermediary. In addition to the representatives of both parties, the meeting may also include assessment agencies, experts with relevant expertise, social organizations, or other stakeholders. The consultation process must adhere to basic legal principles to ensure openness and transparency. The consultation process involves public interest, and the time, place, and main content of the consultation agreement must be conveyed in a timely manner through media channels. This approach facilitates participation and supervision by the public, media, social organizations, and procuratorial organs. The meeting should include an introduction to the participants' fundamental circumstances, a presentation of the case, the evidence and evaluative opinions of the MEEA regarding MEED, the proposed ecological restoration plan, and the compensation details. Additionally, it should include the perspectives of the obligers, a dialogue between the involved parties, and the formalization of the compensation agreement. The claim agreement possesses the legal force of compulsory execution, thereby obligating the obliger to fulfill the responsibilities delineated within the agreement. In cases where the facts of the damage are straightforward or where liability is undisputed, and the amount of damages is relatively minor, a simplified procedure may be employed, potentially allowing for online meetings.

Fourthly, the process for signing and fulfilling the compensation agreement is clearly outlined. After reaching an agreement through consultation, the two sides should sign a compensation agreement and fulfill their obligations in a timely and comprehensive manner (Cheng, 2022). In situations where multiple parties are liable for compensation, one party may assume full responsibility and seek recovery from the others in accordance with legal provisions. If the claimant fails to fully comply with the agreement, the claimant may seek enforcement through the court.

Fifthly, the time frame and frequency of claims should be explicitly limited. The consultation period is generally 90 days from the date of issuance of the consultation notice, and up to three consultations can be conducted. However, in particularly complex cases, or those involving significant claims or foreign compensation obligers, an extension may be granted according to specific circumstances.

Finally, the claimant is obliged to file a lawsuit in a timely manner under statutory conditions, which usually include the following: (1) the obliger of compensation explicitly refuses to negotiate in writing or fails to respond within a specified period; (2) the compensation obliger refuses to participate in the negotiation or withdraws from the negotiation without proper reasons; (3) failure to reach an agreement beyond the agreed negotiation period or the number of negotiations; (4) the debtor fails to perform or performs the negotiation agreement

inadequately; and (5) other circumstances stipulated by laws and regulations (Mei and Wang, 2019). Should the procuratorial authorities or social organizations determine that the consultation agreement fails to adequately protect public interests, they are entitled to initiate environmental administrative public interest litigation (Guo and Hen, 2018).

In the event that the infringer does not fulfill their obligations as stipulated in the compensation agreement, the MEEA may petition the People's Court for compulsory enforcement in accordance with the provisions outlined in the Administrative Procedure Law of the People's Republic of China and the Provisions on Several Issues Concerning the Trial of Administrative Agreement Cases. Should the personal and property rights of the compensation obliger be adversely affected as a result of the consultation process, recourse should be sought through administrative reconsideration, administrative litigation, and other administrative relief mechanisms. If the consultation agreement is found to be lawful and does not infringe upon the public interests of the state and society, the court is obligated to enforce the agreement; conversely, if it does violate such principles, the enforcement application should be denied. Furthermore, if the infringer declines to continue the consultation, if the parties fail to reach a compensation agreement within the legally prescribed time frame, or if there is evidence of unlawful conduct such as abuse of power by administrative bodies or collusion with the compensation obliger, the consultation procedure should be deemed terminated (Zhang, 2019).

## 5.5 Establishing the sequence of administrative enforcement and governmental claims pertaining to MEED

Administrative relief refers to the actions taken by administrative bodies to compel polluters and other offenders to rectify illegal activities, engage in environmental restoration, and ensure compliance with their legal obligations through mechanisms such as administrative coercion or penalties (Xu, 2019). It is the statutory duty of these administrative entities to protect the public interest in the marine ecological environment. Administrative measures, including penalties, compulsory enforcement, and executive orders, offer several advantages, such as proactivity, mandatory compliance, high efficiency, strong professionalism, and a variety of approaches (Lv, 2021). These characteristics enhance the effectiveness of preemptive measures, post-sanction enforcement, and the resolution of MEED compensation disputes. Consequently, administrative law enforcement is a fundamental aspect of MEED relief strategies.

In the context of MEED incidents, the MEEA is advised to adhere to core principles that emphasize prioritizing administrative regulations. This includes favoring administrative actions such as the imposition of fines, issuance of administrative orders, or enforcement measures. The MEEA should initially pursue administrative penalties and other relevant actions against violators of marine eco-environmental standards. In situations

where effective remedies for restoring the service functions of the eco-environment are unavailable—particularly in cases of irreversible ecological and environmental damage—the initiation of claims procedures may be warranted. For instance, a real estate firm located in Weihai, Shandong Province, engaged in reclamation and construction activities without obtaining the necessary approval from the local Marine Development Bureau, thereby unlawfully occupying marine territory. In accordance with its statutory responsibilities, the Marine Development Bureau of Huancui District imposed administrative penalties on the violator for these infractions and issued a formal legal document titled Decision on Administrative Penalties. Despite the imposition of these penalties, the offender proceeded to disregard the law, continuing to illegally occupy the marine area and constructing a bridge for the project. The ineffectiveness of administrative law enforcement in compelling the infringer to cease illegal occupation and restore the marine area to its original condition has complicated efforts to address the ecological damage inflicted on marine ecosystems, including the degradation of marine flora and fauna and sediment disruption caused by pollution and construction activities. In light of this situation, the local marine administrative authority may consider initiating negotiations for damage claims related to MEED or pursuing a compensation lawsuit, contingent upon an assessment of the extent of the ecological damage incurred. It is important to clarify that the claim consultation procedures under the MEEA may only be initiated after all administrative avenues have been exhausted and have proven insufficient to address MEED and the functioning of the marine ecosystem. Litigation for compensation related to MEED represents the final judicial recourse available.

The regulations governing the interface between governmental claims for MEED and the enforcement of marine administrative law must be explicitly and comprehensively articulated within a unified legal framework for ecological damage compensation. Additionally, the implementation of these provisions should be defined in local laws and regulations to ensure effective coordination between the two systems. First, it is essential to clearly define the scope of state claims regarding MEED and clarify the delineation of responsibilities at the administrative level. This clarity will facilitate effective collaboration with the administrative law enforcement agencies responsible for the marine environment. Second, it is imperative to enhance the provisions concerning the convergence of evidence related to governmental claims for MEED and administrative law enforcement. Relevant laws and regulations, along with judicial interpretations pertaining to MEED claims, should explicitly outline the processes for the investigation, collection, integration, and preservation of evidence. This includes the establishment of an information-sharing platform to facilitate the investigation and collection of evidence. Additionally, the evidence transfer protocol for investigation reports and the evidence collected by the administrative authority should be clearly defined in the claim process. This approach aims to optimize the use of direct evidence collected by administrative law enforcement, improving the efficiency of claim investigations

and marine ecological restoration. Furthermore, it is critical to enhance the evidence preservation system to maintain the integrity of the evidence chain concerning marine ecological environment damage. Third, the framework for coordinating liability for marine ecological environment claims and administrative liability should be refined. In cases where the responsible party cannot fulfill the obligation of compensation at the same time, other liability mechanisms, such as marine carbon sinks or alternative recovery measures, should be considered. Moreover, to more effectively achieve the objectives of marine ecological restoration and administrative law enforcement, it may be necessary to adjust the types and measures of administrative penalties.

## 5.6 Enhancing international collaboration and refining China's legal framework for addressing claims related to MEED are imperative

Given that reliance solely on the governance capabilities of individual nations is insufficient, the complex, interconnected, and trans-regional MEED necessitate a collaborative approach to the prevention and management of marine pollution and ecological degradation (Bennett, 2018). Consequently, a model of global marine governance that involves multiple stakeholders—including national, regional, and international governmental organizations, as well as NGOs—is essential (Wang and Cui, 2015). This model should predict the establishment of binding international regulations and be promoted through a process of equitable consultation and negotiation. Such an approach is crucial for the protection of marine ecosystems and the sustainable development of humanity (Bennett et al., 2019). Part XII of the UNCLOS is dedicated to the protection and preservation of the marine environment. Section II of this part underscores the importance of both global and regional cooperation in safeguarding the marine environment, which encompasses risk notification, emergency planning, and the sharing of information related to marine pollution. Furthermore, Articles 192, 194, and 235 of UNCLOS delineate obligations concerning liability for marine environmental protection, risk management, damage mitigation, and state accountability for trans-boundary harm (Quan, 2019). Additionally, Chapter 17 of the United Nations Agenda 21 highlights the significance of targeted consultations and regional collaboration in the protection of the marine ecological environment. However, the effectiveness of international cooperation in addressing MEED is significantly hindered by the complexities of international political dynamics, inconsistencies within the marine regulatory framework, variations in domestic legal systems pertaining to MEED, and the limited efficacy of international judicial decisions.

In light of the challenges presented, it is imperative for China to actively engage in and advocate for the enhancement of the international framework (Kao et al., 2018) governing sovereign claims related to MEED, based on the principles established by the

UNCLOS and Agenda 21. This engagement should be pragmatic, with the objective of more effectively safeguarding China's maritime rights and national sovereignty. To achieve this, China should first enhance and implement its domestic environmental protection system (Xing et al., 2022) while promoting public participation to ensure alignment with international marine environmental standards (Bai and Li, 2021). A foundational step involves the establishment of standardized regulations that address both the substantive and procedural dimensions of governmental claims concerning China's MEED. This includes several critical components: articulating system objectives, identifying eligible claimants, determining responsible parties, specifying the conditions under which claims may be filed, delineating compensation scope, establishing a liability framework, creating a compensation fund, formulating a marine ecosystem restoration program, implementing a consultation mechanism, and clarifying the relationship with marine administrative law enforcement in related matters. Moreover, it is essential to revise the provisions pertaining to MEED claims as delineated in the MEPL. This revision should encompass an evaluation of judicial interpretations, administrative regulations, departmental rules, and other normative documents to identify and rectify any inconsistencies present within these provisions.

In accordance with the stipulations of the Convention, it is imperative for China to foster regional cooperation and establish global partnerships (Gao and Liu, 2024). Furthermore, the development of rules and recommendations pertaining to claims related to MEED. The fundamental principle guiding these efforts should be centered on multilateral cooperation and active engagement in global initiatives aimed at safeguarding marine ecosystems. This necessitates active participation in the negotiation, consultation, and ratification of international conventions, multilateral treaties, and regional agreements within the international legal framework governing marine ecology and environmental management. A regional consensus must be established regarding the overarching principles for the comprehensive protection of marine ecosystems in designated areas, particularly those of ecological and environmental significance. Furthermore, the creation of a regional legal framework for the management of marine ecosystems is imperative. This framework should delineate the obligations pertaining to marine ecological and environmental protection, as well as the mechanisms for enforcing legal accountability (Zhang YQ, 2020). In addition, it is essential to enhance collaboration among regional law enforcement agencies, while promoting initiatives for information sharing, early-warning systems, and emergency response protocols to effectively address MEED (Feng, 2023). Prioritizing marine scientific research and technological development is also critical.

Additionally, it is essential to establish a mechanism that fosters collaboration among government agencies while ensuring meaningful public participation. Claims pertaining to MEED are predominantly undertaken by administrative authorities responsible for environmental and ecological protection, marine



management, maritime regulation, and agricultural and rural affairs. Currently, neither the public nor social organizations are recognized as eligible claimants. The lack of institutional collaboration among the public, social organizations, and governmental agencies, coupled with the sporadic formation of expert groups or collaborative institutions in response to incidents of marine ecological pollution, has significantly hindered the effectiveness of public involvement. First, it is imperative to refine the legal frameworks within the claims legal system, clearly delineating the procedures and methods through which the public and social organizations can engage. Second, the information disclosure system concerning marine ecological damage cases should be improved to ensure that information regarding risk management, damage outcomes, claims procedures, and results of marine ecological pollution incidents is readily accessible. This enhancement would facilitate the public's right to information and oversight. Third, a variety of public participation methods in marine ecological governance should be implemented, including expert consultation sessions, community impact symposiums, and public hearings. For instance, the establishment of expert committees could be integrated into the consultation process, allowing for expert contributions to restoration strategies. Finally, efforts to enhance education and awareness regarding marine ecological protection should be intensified.

## 6 Conclusion

In accordance with the principle of a Maritime Community with a Shared Future, China is actively fulfilling its commitments under environmental declarations and international agreements. By enhancing its domestic legal framework regarding governmental claims for MEED, China aims to more effectively participate in the formulation and implementation of international ocean governance regulations. This initiative seeks to achieve greater alignment and coordination with international maritime law, as well as to strengthen administrative law enforcement and judicial collaboration in both international and domestic marine ecological governance. Consequently, these efforts will provide robust legal protections for the safeguarding of China's national interests in maritime domains and facilitate its engagement in global marine environmental governance efforts.

This paper presents a comprehensive analysis of the governmental claims system related to MEED in China, emphasizing its value, functions, extraterritorial parallels, theoretical debates, implementation, challenges, and potential avenues for improvement. The governmental claims system linked to MEED has emerged as a vital institutional mechanism for safeguarding national maritime rights and interests, as well as for the effective maintenance and restoration of marine ecosystems (Jiang and Faure, 2022). Nevertheless, this system encounters several challenges, including the absence of a robust legal foundation, ambiguous jurisdictional delineations, redundancy and overlap in the authority of claimants, unclear criteria and

scope for the exercise of claims, deficiencies in procedural protocols, and an ambiguous sequence of claims and administrative enforcement concerning marine issues. To enhance the protection of marine public interests, this paper proposes several recommendations for reform. It advocates for the clear establishment of the system's legal framework as a public law system, grounded in the legal responsibilities of the state and government to safeguard public interests in marine ecology and to manage and conserve marine ecosystems effectively. Furthermore, this paper underscores the necessity of refining the rights and responsibilities of the primary claimants and gradually developing a centralized claimant framework to ensure the effective operation of the system. Moreover, the manuscript examines the nature of litigation for MEED, as well as its interrelation with other forms of litigation. Furthermore, it offers recommendations for enhancing the current legal framework.

The text underscores the necessity of delineating the prerequisites for filing a claim and enhancing the procedural framework to rectify existing irregularities within the process. It posits that consultations should adhere to the fundamental principles of administrative law. Moreover, it advocates for the fortification of procedures pertaining to preliminary investigations, notifications of consultations, consultation meetings, the execution of consultation agreements, and the implementation of those agreements, with the aim of augmenting the efficiency and effectiveness of the consultation process. Additionally, the research highlights that the interaction between the government claims system and the administrative enforcement of marine ecosystem regulations should adhere to the principle of exhausting all administrative remedies before filing a claim. Simultaneously, it is imperative for China to engage actively in the development of international regulations and regional legal frameworks concerning global marine ecological governance, as well as in international law enforcement cooperation and information exchange. Such engagement is vital for the effective protection of maritime sovereignty and the preservation of maritime interests, while also contributing to the broader framework of global marine ecological and environmental governance.

Furthermore, it is essential to engage in a comprehensive discussion regarding the integration of the existing relief framework for MEED and develop comprehensive or independent legislation aimed at addressing MEED. This discourse should include an examination of the relationship between claims submitted by administrative agencies and public interest litigation pertaining to the marine environment. Given the interconnected and holistic nature of spatial governance that encompasses both terrestrial and marine domains, it is essential to conduct in-depth investigations into strategies that could improve the coordination of claims related to MEED alongside the relief mechanisms for damage to terrestrial ecosystems. Such efforts should be aligned with the national strategy for land-sea integration, with the goal of reinforcing ecological and environmental governance in transitional zones between land and sea, such as coastal mudflats.

## Data availability statement

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

## Author contributions

LY: Writing – original draft, Project administration, Formal Analysis, Methodology, Funding acquisition, Supervision, Investigation, Writing – review & editing. HL: Methodology, Data curation, Writing – review & editing, Supervision, Investigation, Resources, Project administration. YJL: Supervision, Project administration, Resources, Methodology, Writing – review & editing, Data curation, Investigation.

## Funding

The author(s) declare that financial support was received for the research and/or publication of this article. This research was funded by China's National Social Sciences Foundation (No. 24VSZ065) and Shandong Province Innovation Capacity Enhancement Project for Small and Medium-Sized Science and Technology Enterprises (2023TSGC0025).

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## Conflict of interest

Author YJL was employed by the company Beijing Tianrongxin Network Security Technology Co., Ltd.

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

## Generative AI statement

The author(s) declare that no Generative AI was used in the creation of this manuscript.

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