

Original Paper

Reflections on the Institutional Guarantee of China's Marine Disaster Emergency Rescue

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Abstract

In recent years, global marine disasters have exhibited a high-frequency and recurrent trend, yet the construction of China's legal systems in the field of emergency rescue has lagged behind, with no special legislation specifically targeting emergency rescue for such disasters. In the practical operation of the existing disaster emergency rescue mechanism, the definition of governmental functions remains ambiguous, and the division of powers and responsibilities is not sufficiently clarified. The relevant legal norm system has been unable to adapt to the actual needs of marine governance work in the new era and the new development situation. Based on this, this paper focuses on the improvement path of China's current marine emergency rescue legal system, aiming to promote the alignment of the relevant institutional system with the historical mission and practical requirements of national development in the new era through systematic research.

Keywords

Marine Disasters, Emergency Rescue, Institutional Guarantee

As one of the countries most severely affected by marine disasters globally, China has continuously faced frequent attacks from various marine disasters such as storm surges, waves, sea ice, red tides, and tsunamis in the process of achieving rapid growth in the marine economy. This poses a severe challenge to the sustainable economic and social development of China as a whole, especially in coastal areas. To effectively resist various risks and hazards caused by marine disasters, China has long been actively promoting the construction of a marine disaster emergency rescue system and has initially formed a corresponding institutional framework. However, there are still various problems: the current legal systems related to marine disaster rescue still have considerable room for improvement, special legislation for marine disaster emergency rescue has not been introduced, and in the actual operation of the existing disaster emergency rescue mechanism, the functional definition among

governments at all levels and their subordinate departments is not clear enough, with a lack of clear standards for the division of powers and responsibilities. The relevant legal norm system is not only difficult to adapt to the new development trend of marine governance in the new era but also cannot fully meet the actual needs of practical disaster relief work. In view of this, we must face up to the current development situation, systematically analyze the existing problems in the operation of the system, and further establish and improve China's marine disaster emergency rescue system through continuous optimization and improvement.

1. The Necessity of Improving the Marine Disaster Emergency Rescue System

According to the statistical data released in the China Marine Disaster Bulletin, the main types of marine disasters in China in 2021 were storm surges, waves, and sea ice. Throughout the year, various marine disasters caused a direct economic loss of 3,070,873,800 yuan, and a total of 28 people died or went missing due to the disasters. By comparing with the average data of the past ten years from 2012 to 2021, it can be seen that the direct economic loss and the number of deaths and missing persons caused by marine disasters in China in 2021 were both lower than the ten-year average, accounting for only 36% and 62% of the average respectively. In addition, relevant data in the China Sea Level Bulletin indicates that the sea level change trend in China's coastal areas generally presents a fluctuating upward characteristic: from 1980 to 2021, the annual rising rate of China's coastal sea level reached 3.4 millimeters, which has exceeded the average rising level of global coastal sea level in the same period; in 2021, China's coastal sea level was 84 millimeters higher than the normal standard, setting a new historical record since 1980, and the high sea level background has further amplified the impact of various marine disasters in coastal areas. Entering 2022, there were 13 storm surge processes reaching blue or above early warning levels in China's coastal waters, among which 5 storm surge processes caused disasters, resulting in a total direct economic loss of 2.37 billion yuan. Based on the vertical analysis of the data in the past ten years, the occurrence frequency of storm surge processes in 2022 was lower than the ten-year average, and the number of storm surge disasters was tied with that in 2019 as the lowest in the past ten years; at the same time, the direct economic loss caused by storm surge disasters in that year was only equivalent to 35% of the average direct economic loss of the same type of disasters in the past ten years.

The high-frequency occurrence of marine disasters not only brings huge economic losses to China, interfering with the steady progress of social and economic development but also directly threatens the safety of people's lives in disaster-stricken areas and the stable operation of social order. The improvement of the marine disaster rescue system plays an irreplaceable important role in resolving various social problems derived from disasters, reconciling social contradictions and conflicts, maintaining overall social stability, and promoting sustainable social development. Marine disaster emergency rescue is not only a core component of national administrative management functions but also a key indicator reflecting the comprehensive national emergency rescue capabilities; to improve

the governance efficiency and overall coordination capacity of governments at all levels in responding to emergency disaster scenarios, it is necessary to bring national disaster emergency rescue actions into a standardized and legalized operation track. At the same time, considering that marine disaster rescue work has significant characteristics such as a wide coverage and high difficulty in task implementation, it is difficult for a single subject to efficiently complete various rescue tasks. Therefore, exploring and constructing a multi-governance marine disaster emergency rescue mechanism with the government as the core leading force and various social forces participating collaboratively has become an inevitable choice.

2. Deficiencies in China's Marine Disaster Emergency Rescue System

2.1 Deficiencies in the Legal System for Marine Disaster Emergency Rescue

From the perspective of current institutional practice, China's legal system for marine disaster emergency rescue has significant room for improvement, with core deficiencies focusing on three aspects: insufficient legislative level, lack of upper-level legal functions, and absence of specialized legislation. Firstly, no comprehensive and systematic legal framework exists in the domain of disaster relief, which fails to offer coherent institutional safeguards. Secondly, the Emergency Response Law of the People's Republic of China, as the main upper-level law for marine disaster emergency rescue, has insufficient pertinence in its existing provisions for regulating the field of marine disaster emergency response. It has not been able to give full play to the leading and guiding role that upper-level laws should have, and its scope of application is also difficult to fully cover the special scenarios and practical operational needs of marine disaster emergency rescue. Thirdly, China has not introduced specialized comprehensive laws and regulations for marine disaster emergency rescue, and relevant norms are scattered in general legal texts such as the Emergency Response Law of the People's Republic of China, the Environmental Protection Law of the People's Republic of China, and the Marine Environmental Protection Law of the People's Republic of China. Although the Emergency Response Law of the People's Republic of China has made principled definitions on the emergency procedures for various emergencies in China from the procedural level, due to the overly general wording of the provisions and the lack of specific operational norms and quantitative standards adapted to the particularity of marine disasters, it is difficult to form effective practical constraints and guidance for the rescue work of sudden marine disasters.

2.2 Vague Division of Powers and Responsibilities among Various Departments

In some coastal areas of China, to effectively respond to marine disasters, the establishment of relevant emergency command institutions generally starts at the provincial level. Its core function is to coordinate various competent departments, thereby strengthening the emergency disposal efficiency of marine disasters and comprehensively improving the comprehensive defense level of major marine disasters. However, from a practical perspective, marine disasters often have the characteristics of far-reaching impact and wide coverage. This feature directly leads to unclear division of powers and

responsibilities, poor work connection, and even mutual shirking among various functional departments in the process of disaster response, which constitutes a significant obstacle to the efficient advancement of marine disaster emergency disposal work. In addition, marine disaster emergency rescue work is both highly professional and technically complex, while there is a lack of a mature collaborative response mechanism among existing departments. This makes China's emergency rescue organization system for environmental emergencies still mainly rely on vertical hierarchical linkage, and there is obvious room for improvement in the horizontal collaborative linkage mechanism among departments.

2.3 Imperfect Social Mobilization Mechanism for Marine Disaster Emergency Rescue

The construction of China's emergency management system has long been dominated by government departments as the core leading force, and in practice, it lacks the in-depth participation of the general public. The core cause of this problem is that the public has neither been granted smooth participation channels nor been backed by corresponding institutional norms and rights protection under laws and regulations. Consequently, when confronted with marine environmental emergencies, they have remained in a passive state, not knowing how to effectively intervene in and participate in the disposal work. This "government-led" operational model has, to a certain extent, weakened the social responsibility of individuals and relevant enterprises in marine environmental protection, while also curbing the cultivation of their awareness of active participation. In view of the special attributes of marine environmental emergencies—such as intricate causes and a wide scope of impact—their emergency disposal requires greater efforts to pool the joint forces of multiple parties. By guiding the active participation of the public, the organic integration of various social resources can be achieved, thereby enhancing the comprehensiveness and effectiveness of the response work.

3. Suggestions for Improving China's Marine Disaster Emergency System

3.1 Improve and Consummate the Legal System for Marine Disaster Emergency Rescue

Firstly, China should clarify the relevant provisions of the state of emergency system in the constitutional text, incorporate emergency response measures including the emergency disposal of sudden marine disaster events into the scope of constitutional provisions, and formally elevate the emergency management work of sudden marine disasters and other types of emergencies to the basic institutional content established by the constitution. Secondly, to effectively improve the guiding effectiveness of the emergency disposal work of marine environmental emergencies, it is necessary to formulate supporting emergency implementation rules or special regulations for sudden environmental events based on the Emergency Response Law of the People's Republic of China as the upper-level legal basis. Furthermore, specific norms that are connected with and supplementary to the upper-level law should be formulated for the establishment of emergency management institutions, the division of functional responsibilities, and the emergency legal obligations that administrative counterparts need to perform in response to sudden marine environmental pollution events. Thirdly, while advancing the

formulation of the Overall Emergency Plan for Marine Emergencies, it is necessary to synchronously strengthen the systematic construction of specialized legal plans and build a hierarchical and closely connected framework of marine emergency legal plans.

3.2 Clarify the Division of Powers and Responsibilities among Various Departments

To clarify the division of powers and responsibilities among various departments, the provincial emergency command institution should be taken as the core starting point. Firstly, it is necessary to refine the list of powers and responsibilities of various competent departments in the whole process of marine disaster emergency disposal, clarify the work connection nodes and accountability mechanisms, and solve the dilemma of inter-departmental shirking and unclear powers and responsibilities at the institutional level. Secondly, focusing on the professional and technical needs of marine disaster emergency rescue, build an inter-departmental information sharing and technical collaboration platform, regularly organize joint practical drills to temper the collaborative disposal capacity, and at the same time break the single mode of vertical hierarchical linkage, construct a normalized inter-departmental horizontal collaborative mechanism, and promote the formation of a marine disaster emergency disposal system with clear powers and responsibilities, vertical and horizontal linkage, and efficient collaboration. Finally, based on the practical needs of marine emergency disposal, China urgently needs to establish a permanent specialized marine emergency rescue institution. When a marine emergency occurs, the institution assumes the core functions of on-site command and inter-departmental coordination, conducts authoritative overall allocation of various national resources, implements unified command and dispatch of all involved competent departments, and can also play a hub role in connecting multiple forces and coordinating relevant departments to efficiently promote work in key links such as the public release of emergency information, the regular prevention of marine disasters, and the post-disaster reconstruction of disaster-stricken areas .

3.3 Establish a Social Mobilization Mechanism for Emergency Rescue

In view of the special attributes of marine environmental emergencies, their emergency disposal work requires the active participation of the social public to ensure the timeliness of the transmission of information related to emergencies and promote the comprehensive improvement of emergency response measures. At the same time, the role that various social organizations can play in the disposal of such events cannot be ignored. Based on this, relevant subjects need to further strengthen the popular science publicity and education work in the field of marine emergency rescue and strive to improve the comprehensive capacity of the whole society to respond to marine disasters; extensively carry out special training on marine disaster emergency response among all sectors of society, deeply interpret the content of marine disaster emergency plans, comprehensively popularize relevant knowledge and practical skills such as disaster prevention, risk avoidance, self-rescue, mutual rescue, and disaster reduction, and gradually promote the application of professional emergency identification systems. The construction of a social mobilization mechanism can build a direct communication bridge between the affected groups and the emergency rescue subjects, play an irreplaceable role that government

departments find difficult to achieve, and effectively make up for the shortcomings of the government-led emergency rescue model.

4. Conclusion

While economic globalization is driving the rapid development of the marine economy, it has also caused varying degrees of negative impacts on the marine ecological environment. In the new era, the improvement of the marine disaster rescue legal system needs to take the construction of a systematic, scientific, standardized, and efficient operation system as the core orientation. Only by solidly promoting various implementation measures and comprehensively improving the comprehensive capacity of emergency management can it release more significant supporting effects in the process of building a maritime power. Based on this, relevant research and practice need to be based on China's basic national conditions, continuously deepen the optimization and exploration of the marine disaster emergency rescue system, effectively enhance the government's capacity to respond to marine disasters, and then build a solid guarantee for the harmonious stability and sustainable development of China's economy and society.

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