

## *Original Paper*

# Legal Issues and Countermeasures in the Application of China's Particularly Sensitive Sea Areas

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### **Abstract**

*The Particularly Sensitive Sea Areas (PSSAs), as a type of area-based management tool, plays an important role in protecting the marine environment and marine ecosystems from the threats posed by international shipping activities. China has large areas that could be applied as PSSAs. However, there are potential problems in the application process, especially in terms of proposal applications and the implementation of routing measures. These problems include the lack of a coordinating body for applications, disputes over the application area, restrictions on relevant protective measures, and changes in the content and procedures of the application. In terms of implementation, these include the lack of domestic legislation on alignment measures, the lack of a clear implementation entity, the imperfect enforcement system, and the lack of technical support. Subsequently, through the analysis of the successful experience of existing particularly sensitive sea areas, solutions to the problems in the application of particularly sensitive sea areas in China are proposed. These solutions include establishing communication mechanisms with neighboring countries, carefully selecting the application area, improving domestic legislation on alignment measures, improving the law enforcement system, and improving law enforcement technology. These targeted recommendations will clear the way for the application of particularly sensitive sea areas in China.*

### **Keywords**

*Particularly Sensitive Sea Areas (PSSA), Ship Routeing System, Marine Environmental Governance*

## 1. Introduction

The Particularly Sensitive Sea Area (PSSA) was finally defined by the IMO in resolution A.982(24) as “an area which, because of its recognised ecological, socio-economic or scientific importance and because of its potential vulnerability to damage from international shipping activities, requires special protection by the International Maritime Organization. International Maritime Organisation (IMO)”. In recent years, with China’s emphasis on the management of the marine environment and the increase in shipping pollution, the application of the particularly sensitive sea area system has a certain degree of urgency and necessity. The application of the particularly sensitive sea area system mainly consists of two key parts, one is the application of the proposal, and the other is the implementation of the relevant protection measures, mainly the implementation of the alignment measures. In the particularly sensitive sea areas that have been applied so far, most of the problems are reflected in these two key parts. And china will inevitably face many problems brought by these two key parts in the future application. In view of this, this paper firstly summarises the existing problems in the application and implementation of particularly sensitive sea areas, and analyses the problems that China will face in the application and implementation. Then focuses on the causes and manifestations of these problems, and finally provides targeted countermeasures to solve them.

## 2. Issues in Applications for Particular Sensitive Sea Areas

### 2.1 Lack of a Coordinating Body for Application

The lack of an application coordinating body may be the first problem China encounters in its application. In the application for particularly sensitive sea areas, there are many examples of multiple countries jointly applying. Since there are many coastal countries surrounding China’s seas, it is very likely that the proposal will be jointly applied for by multiple countries. However, those successful multi-country proposals cannot do without the help of coordinating bodies and governing bodies. For example, the Baltic Marine Environment Protection Commission, the Wadden Sea Joint Secretariat, and the Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea. These institutions are responsible for communication and cooperation between countries in the region. It can be said that it is precisely because these institutions coordinate the unified assessment of the regional environment and submit applications that they have contributed to the successful designation of the Baltic Sea, the Wadden Sea, and the particularly sensitive sea areas in the northwestern Mediterranean. However, China lacks such an institution. Take the Yellow Sea as an example, this region covers China, South Korea and North Korea. However, the three parties have not yet established a common governing body or an effective coordinating body. Although China and South Korea have communicated with each other, they have not yet established an effective governing body for international shipping activities or marine environment monitoring. There is even less basic communication and cooperation between North Korea and South Korea. If China, South Korea and North Korea fail to establish an effective coordinating governing body to regulate shipping activities or

assess the marine environment, then there may be situations where the content of the three countries' respective proposals conflict. This will not only increase the workload of the IMO and prolong the application process, but also present China with huge difficulties at the initial stage of the application.

### *2.2 Conflation of Special Areas with Particularly Sensitive Sea Areas*

The second problem that China may face in applying for particularly sensitive sea areas is the selection of special areas and particularly sensitive sea areas. Both special areas and particularly sensitive sea areas are a type of marine protected area, and particularly sensitive sea areas originate from special areas. The concept of special areas was born in MARPOL 73/78, and generally refers to certain sea areas that require special mandatory measures through technical identification to prevent pollution caused by oil pollution, toxic liquids and garbage discharged from ships due to the particularity of their marine ecology and shipping transportation. From the concept of special areas, it can be seen that whether it is the establishment of standards, the establishment of conditions, or the purpose of establishment, special areas and particularly sensitive sea areas are very similar and can easily be confused. So for China, especially in the case of the Bohai Sea, a semi-enclosed sea with a bay area, there is a big dilemma about how to choose. In existing practice, especially in semi-enclosed seas such as the Baltic Sea and the northwestern Mediterranean, the two areas were first applied for as special areas and then further developed into particularly sensitive sea areas. For the Bohai Sea, due to the similarity of the two concepts, whether to apply to become a particularly sensitive sea area or a special area will cause confusion for China. The choice between a special area and a particularly sensitive sea area will not only affect the selection of relevant protection measures, but also the efficiency of the application. Although there is no legal requirement that a semi-enclosed sea like the Bohai Sea must first apply to become a special area before applying to become a particularly sensitive sea area, in practice, if an area first applies to become a special area, it will be easier for it to pass the application to become a particularly sensitive sea area at a later date. However, the negative impact of a high pass rate is a longer application cycle. Therefore, resolving the confusion between special areas and particularly sensitive sea areas will be the second important issue facing China's application.

### *2.3 Dispute over the Size of the Application*

The third issue is the dispute over the application area. Although the 2005 "Procedures for the Identification and Related Protection Measures for Particularly Sensitive Sea Areas" stipulates that as long as an area meets the same criteria, it can be classified as a particularly sensitive sea area, and does not place excessive restrictions on the area size. However, in previous applications for particularly sensitive sea areas, many areas have failed to be approved because the application area is too large. For example, the first proposal for a particularly sensitive sea area in Western Europe was generally opposed by European flag states because the application area was too large. This led to several revisions of the area before it was approved. Undoubtedly, a larger area can better protect the ecological integrity of the region. In order to better protect these areas from the impact of international shipping activities, it is inevitable that the proposals submitted by various countries will include a

considerable portion of sea area. This will inevitably be opposed by some flag states. Even some extraterritorial states may use this as a political topic to hinder the application. However, if the area of China's application is restricted or reduced in order to reduce obstacles, some areas that should be protected will not be protected due to compromise. This would defeat the fundamental purpose of the application, which is to protect the area from the impact of international shipping activities.

### **3. Limitations of Protective Measures**

Associated protective measures are an essential part of the proposal, and the International Maritime Organization (IMO) has stipulated the sources of associated protective measures. The first is the provisions of existing IMO legal documents, the second is legal documents that have not yet been approved by the IMO but are awaiting approval in the application process. The third are associated protective measures that already exist in regional practice, such as the protective measures that have been implemented in marine protected areas, national marine parks, and other areas. These measures can also become official associated protective measures in the region after being approved by the IMO. Although the regulations clearly restrict the relevant protective measures, they have been in practice for a long time. Most of the relevant protective measures adopted by the IMO come from the first point, and most of them are selected from the routing measures. Many new associated protective measures have been proposed but not adopted. Although in recent years some new protective measures for cetaceans in the northwestern Mediterranean Sea, such as avoiding the migration route of cetaceans, maintaining an appropriate safety distance, and broadcasting reports on the location of cetaceans, have been adopted, it does not mean that the IMO has relaxed its restrictions on associated protective measures. Rather, it is because such measures have been implemented in the region for a long time and tacitly accepted by various flag states. Back in China, in order to better protect some areas, it is often necessary to have some protection measures in addition to unique routing measures. However, due to the IMO's restrictions on relevant protection measures, an important issue for China to consider in its application is whether new protection measures will be rejected due to the lack of formal IMO legal documents, thereby affecting the adoption of the entire proposal.

#### *3.1 Changes in the Content and Procedures of the Application*

In recent years, with the further development of particularly sensitive sea areas. Mainly in the Asian region, the first application and the introduction of some new related protection measures have prompted some changes in the application content and procedures for particularly sensitive sea areas. There have been four major changes and many minor changes to the application process for particularly sensitive sea areas. Major changes have mostly been made by amending the guidelines, while minor changes have been introduced by way of amendments. After the last major change in 2005, the application content and procedures for particularly sensitive sea areas have gradually stabilized, but in recent years, some minor and more frequent changes have also caused unexpected problems for our country's applications. These changes include, but are not limited to, the standards for drawing nautical

charts in the application proposal, the accuracy of the basepoints and baselines, and the different emphases placed by the review committee on ecological, economic and scientific research values. These detailed issues may seem insignificant, but if they are not paid attention to and addressed, they will often cause unnecessary trouble for Chinese applications, which could have been avoided. For example, in the application for the Costa Rica Dome, the applicant country was unable to submit a qualified proposal due to a lack of understanding of the application procedures and content. The International Maritime Organization even specially formed a forum to help the applicant country prepare for the drafting of a qualified proposal. It can be seen that if small changes in the content and procedures of the application are not taken seriously, the final result will be affected. And with the increasing frequency of small changes in recent years, China needs to pay more attention to changes in the content and procedures of the application.

#### **4. Issues in the Implementation of the Pssa**

##### *4.1 Lack of Domestic Legislation on Alignment Measures*

Among the relevant protection measures that have been implemented in particularly sensitive sea areas, routeing measures are the mainstay. China currently lacks comprehensive legislation on routeing measures, which also results in a lack of enforcement basis for China to implement routeing measures. China currently only has sporadic provisions on ship routeing systems in laws and administrative regulations such as the Maritime Traffic Safety Law and the Law of the People's Republic of China on Fairways. For example, Article 9 of the Territorial Sea and Contiguous Zone Law follows the provisions of Article 22 of the Convention on the Law of the Sea; Article 15 of the Maritime Traffic Safety Law refers to prohibited navigation areas; and Article 28 of the Regulations on the Safety Supervision and Administration of Ships Carrying Dangerous Goods refers to the requirement that ships carrying dangerous goods for water transfer operations or ships carrying dangerous goods for washing (cleaning), degassing or replacement should stay away from the ship routeing system area. Although these regulations also mention routeing measures, they are presented in a sporadic and scattered manner, making it difficult to form a holistic legislative provision on routeing measures. This will create difficulties for the corresponding departments in enforcing the law, as scattered legislation makes it difficult for law enforcement departments to find a specific basis for enforcement. In addition, another disadvantage of not having a complete domestic law provision on routeing measures is that it creates difficulties in the interface between domestic and international law, and these difficulties will undoubtedly make it more difficult to implement relevant protective measures. Although the Convention on the Law of the Sea provides that coastal states may enjoy the maritime rights and interests stipulated in Article 9 of the Territorial Sea and Contiguous Zone Act, Article 15 of the Maritime Traffic Safety Act, and Article 28 of the Regulations on the Safety Supervision and Administration of Ships Carrying Dangerous Goods, the lack of comprehensive domestic legal provisions on routing measures has also resulted in China's inability to effectively connect with

internationally accepted conventions, thereby making the application of routing measures even more unconvincing. In practice, the application of routing measures in particularly sensitive waters often requires substantial domestic legislative support as the basis for future law enforcement.

#### *4.2 Lack of Clarity on the Subject of Implementation*

The second problem China faces in implementing relevant protective measures is the lack of a clear implementation entity. After the relevant protective measures are passed, specific departments are needed to carry out management, and different routing measures may need to be implemented by different departments. At present, the provisions of Chinese law on the routing system are not yet complete, and there is a lack of a clear entity to be responsible for the overall implementation of relevant protective measures. At this stage in China, the implementation agency for the ship routing system is not perfect, and different measures need to be implemented by different departments. Although China generally has a system framework for regional management by the Maritime Safety Administration directly under the Ministry of Transport, the implementation of relevant protective measures may involve multiple regions. Once the implementation of routing measures involves maritime authorities in multiple regions, it will cause confusion about the implementation entity, and the lack of clarity about the implementation entity will affect the implementation effect of the routing measures. In the existing particularly sensitive sea areas where routing measures are implemented, each has a clear implementation entity. This is an essential step for the smooth implementation of routing measures, and China has not yet identified a clear institution to be overall responsible for the implementation of routing measures. The lack of an implementation entity is an urgent problem that needs to be solved in the implementation of particularly sensitive sea areas.

#### *4.3 Incomplete System of Enforcement Procedures for Fixed-Line Measures*

Most countries that implement routing measures have detailed and strict regulations on the enforcement procedures for routing measures. These regulations cover the responsibilities of various departments, such as whether the fisheries department or the port department is responsible for managing no-anchoring areas. For traffic separation schemes, the specific circumstances of violations of the system and the procedures for dealing with these situations are clearly defined. These procedures need to include the steps for enforcement, the level of enforcement for different violations, the specific penalties, etc. For most routing measures, additional regulations are also needed to clarify the handling plan in case of an emergency. For example, there needs to be a clear determination of the level of emergency, temporary routes for emergency stops, limits on liability, etc. All procedures need to be refined and standardized, so that law enforcement officers can effectively enforce routing measures in the region. The General Provisions on Vessel Routing provide some standardized and principled provisions on the implementation procedures for routing measures. For example, there are provisions on the applicable areas for different measures and the general process for implementing routing measures. However, these principles alone are not enough to deal with the complexities of practice. Countries still need to improve the guidelines in light of their own law enforcement practices

and set standards for enforcement procedures that suit their own circumstances. For example, the Australian Maritime Safety Authority and the United States Coast Guard have detailed departmental enforcement guidelines for the implementation of routing measures to standardize procedures and thereby ensure the effectiveness of enforcement. However, China's current administrative enforcement mechanism for ship routing systems is not yet perfect. The "Administrative Enforcement Provisions for Transportation" do not have specific provisions on the enforcement procedures, enforcement standards, and penalties for routing measures, but instead make generalizations like those in the "General Provisions on Ship Routing". This generalization is not sufficient to support the actual enforcement of routing measures in particularly sensitive sea areas. In addition, China's enforcement procedures for routing measures are scattered among different laws and regulations, and have not yet formed a complete system of enforcement procedures. These will not be conducive to the implementation of routing measures in particularly sensitive sea areas.

#### *4.4 Lack of Technical Support*

Traffic separation schemes, recommended tracks, two-way routes, deepwater channels, sheltered waters, no-anchoring areas and other routing measures require certain technologies to be implemented successfully, and sometimes need to be combined with other measures. For example, vessel traffic management systems (VTS) and ship reporting systems (SRS). As a type of vessel management system, these two systems play a very important role in the successful implementation of routing measures. For example, recommended routes, two-way routes and other measures need to be coordinated with the VTS system to keep track of and guide ship movements. For protective measures such as deepwater channels, waters to be avoided and no-anchoring areas, the VTS system needs to be coordinated with the SRS to maintain interaction between shore-based authorities and ships, so that the coastal state can determine the movement trajectory and possible risks of ships to ensure the smooth implementation of routing measures. The implementation of routing measures in particularly sensitive waters requires the coordination of the VTS system and the SRS. However, China's current regulations on routing measures are still incomplete, and the coordination of routing measures with other protective measures is even more lacking. In addition, some maritime bureaus have not introduced VTS and ship reporting systems within their areas of responsibility. Although China has also carried out a large amount of environmental monitoring, scientific research and protection work in relevant sea areas, it has started relatively late compared to other countries. There are still some immature aspects in terms of marine environmental monitoring technology, ship management, and communication monitoring equipment. These technical factors will all have a negative impact on the implementation of routing measures.

#### *4.5 Lack of Joint Law Enforcement Authorities*

The establishment of particularly sensitive sea areas in China requires clarification of one fact: it is likely to involve areas of multiple countries. This will be similar to the particularly sensitive sea areas of Western Europe, the Wadden Sea and the Baltic Sea. In these areas, multiple countries jointly implement related protection measures. However, unlike these areas, the maritime authorities of the

countries in these areas have experience in joint law enforcement. For example, Denmark, Sweden, Germany, and Poland in the Baltic Sea have established a joint management mechanism for particularly sensitive sea areas in the region, which can ensure the integrity and consistency of routing measures implemented in the region. However, China faces the reality of a lack of law enforcement cooperation and communication with the surrounding maritime countries. On the contrary, due to political issues, neighboring countries lack mutual political trust, and not only is effective cooperation in law enforcement impossible, but in many cases, they even conflict with each other. More importantly, the political claims of some extraregional powers can also undermine the already limited regional cooperation. These political claims often interfere with China's normal law enforcement activities in the name of freedom of navigation and transit passage rights, or exert political pressure on countries that are willing to cooperate. This has caused many problems for joint law enforcement and cooperation between countries. China will face this problem particularly seriously. Take the particularly sensitive waters of Western Europe as an example. Although the UK and Ireland have had disputes over cooperation due to political issues, due to closer cooperation between European countries and less extraterritorial political pressure, countries can still maintain a certain degree of cooperation in law enforcement. In contrast, the lack of cooperation between China and surrounding maritime countries and extraterritorial political pressure will pose considerable obstacles to joint law enforcement.

## **5. Countermeasures and Suggestions**

### *5.1 Response in the Application*

#### 5.1.1 Establishment of Coordinating Governing Bodies

Strengthening communication and dialogue with neighbouring countries and exerting the influence of regional powers. Lead the establishment of institutions like the Baltic Marine Environment Protection Commission, the Wadden Sea Common Secretariat and the Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea in the Yellow Sea. This will provide an effective consultation platform for proposals and reduce differences.

#### 5.1.2 Choosing Carefully between Special Areas and Particularly Sensitive Sea Areas

The proximity between the two requires us to choose carefully when applying. Specific areas should be analysed, and the entire sea area should not be viewed as a broad whole substituting for special areas or particularly sensitive sea areas. The whole area should be divided into different sub-areas according to different ecological characteristics. The different characteristics within the overall area should be carefully mapped out in order to prepare for the accurate selection of special areas and particularly sensitive sea areas.

#### 5.1.3 Refinement of the Application Area to Avoid Blind Expansion

Blindly expanding the application area is not conducive to the proposal's passage, so China needs to refine the application area to make it specific and accurate. Reference can be made to the Western



European Particularly Sensitive Sea Areas, which use ecological integrity and accuracy as the criteria to divide a large area into several small areas. These small areas meet the same ecological standards, such as coral gathering places and fish migration routes. This makes the area covered by the proposal include both the areas that really need protection and avoid blind expansion, which will trigger opposition from neighboring countries.

#### 5.1.4 Conservative Selection of Relevant Protective Measures

Given the attitude of the International Maritime Organization towards new associated protective measures and the degree of acceptance of associated protective measures by various flag states, China can choose associated protective measures in a conservative manner when it first applies for particularly sensitive sea areas. It can choose those associated protective measures that have been frequently used in practice, are widely used, and are most important for routing measures. Among routing measures, it is mainly necessary to choose measures to avoid waters and traffic separation schemes. These two measures have a high degree of acceptance and are guaranteed by IMO legal documents, so they are suitable for countries applying for the first time to use in their proposals. Although each region may require some unique associated protective measures, these can be modified or supplemented after a successful application, so in the initial application China can choose those associated protective measures that are commonly used and relatively conservative. Even if the results do not meet expectations, they can be supplemented and replaced in subsequent amendments.

#### 5.1.5 Tableskeeping Abreast of Changes in the International Maritime Organisation Application Process

The Particularly Sensitive Sea Areas (PSSAs) is still evolving and is usually revised by the International Maritime Organization in the form of amendments every year. Although the content of the revisions in recent years has been relatively stable, China still needs to pay close attention to it. For example, there have been revisions to some terms and the addition and deletion of procedures. These seemingly insignificant changes can cause problems in the application process if they are not paid attention to. Not only does attention need to be paid before applying, but if the application is successful, China needs to pay attention to changes in the PSSAs regime so that it can make adjustments according to changes in the procedures.

### 5.2 Responses in Implementation

#### 5.2.1 Strengthening Domestic Legislation for Alignment Systems

Australia has not only successfully applied for the world's first Particularly Sensitive Sea Area (PSSAs), but also has relatively comprehensive domestic legislation on the routing system. Its system is worth learning from. For example, the Offshore Constitutional Settlement Agreement, which clarifies the functions of local and central governments and thus facilitates the central government's unified management of shipping activities; the Marine Protection (Prevention of Pollution from Ships) Act 1983, which regulates routing measures as a whole; the Great Barrier Reef Marine Park Management Regulations, which separately stipulate routing measures in particularly sensitive sea

areas; and the Maritime and Coastal Transport Security Act, which connects domestic legislation with foreign legislation. China can take its own actual situation into account and add to its domestic law provisions on the conditions and scope of the ship routing system. Specific provisions should be made on related matters to avoid the emergence of general and ambiguous legal provisions. In addition, the connection with IMO treaty instruments should be strengthened. China can draw on the General Provisions on Routing Measures to legislate on routing measures, and supporting policies should be provided to support the implementation of international conventions. Only in this way can domestic legislation be truly improved and the implementation of the Particularly Sensitive Sea Areas regime be guaranteed.

#### 5.2.2 Clarify the Main Body of Implementation and Its Powers and Responsibilities

The Ministry of Transport is responsible for the overall planning of ship routing issues in China. In areas where the Particularly Sensitive Sea Areas (PSSAs) regime is implemented, there may be overlapping jurisdictions between different maritime authorities or overlapping responsibilities between departments. At this time, the Ministry of Transport needs to take the lead and delineate clear jurisdictions among different maritime authorities. Coordinate among departments such as ports, fisheries, and maritime police enforcement. In this way, the implementation entity and its rights and responsibilities are clear.

#### 5.2.3 Improving Law Enforcement Procedures

In order to ensure the smooth implementation of relevant protective measures, China also needs to improve its law enforcement procedures and formulate stricter enforcement standards for ship routing. These standards should include the severity of violations, the level of punishment, the daily supervision process and methods, and the specific legal consequences. In addition, China can strengthen the construction of law enforcement teams. No matter how good the procedures are, they still need to be implemented by a high-quality team. Although China's Coast Guard and other departments have a high level of law enforcement, they still lack experience in law enforcement in particularly sensitive waters. China can strengthen communication and exchanges between law enforcement departments such as the China Coast Guard and other countries, learn from each other, and draw on their law enforcement experience in particularly sensitive waters. For example, the Australian Coast Guard, the US Coast Guard, etc.

#### 5.2.4 Improvement of Technical Skills

In order to ensure the smooth implementation of relevant protective measures, technological improvements are essential. Introduce a Vessel Traffic Management System (VTS) and a Ship Reporting System (SRS). Establish more shore-based monitoring stations around particularly sensitive sea areas, and promote the installation of unified communication facilities or satellite facilities on ships of flag states. Increase scientific research in relevant waters, and monitor and warn of the hydrology, ecology, and weather in relevant waters. In addition, increase investment in transportation facilities and communication equipment for law enforcement teams to ensure their law enforcement capabilities and

the effectiveness of the implementation of relevant protection measures.

#### 5.2.5 Shared Co-Operation to Set Up Joint Law Enforcement Units

Invite coastal countries to establish joint law enforcement departments in some special areas with an equal attitude and the concept of sharing and co-construction. Based on the principle of a community of maritime interests, we should not belittle either party and respect all coastal countries. We should learn from the experience of establishing joint law enforcement departments in countries in particularly sensitive sea areas such as the Torres Strait and the northwestern Mediterranean, as well as from cases that have been successfully implemented domestically. For example, the Mekong River Joint Patrol Law Enforcement Command. Fully communicate with coastal countries, seek common ground while reserving differences, and reach an agreement. Resist interference and obstruction from external forces through sharing and co-construction.

### 6. Conclusions

The PSSA regime has matured over more than 30 years of practice. However, it is still an area to be explored for China. If China chooses to apply it, it will inevitably encounter many problems such as the lack of an application coordination agency, disputes over the application area, restrictions on related protective measures, the lack of domestic legislation, and imperfect enforcement procedures. Studying these issues in advance and analysing practical countermeasures will have a positive impact on the future application of PSSA in China.

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