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RECEIVED 18 August 2025

ACCEPTED 09 September 2025

PUBLISHED 25 September 2025

CITATION

Li M, Leng L, Li J, Ma C and Zhang H (2025)
Legal issues on China's maritime energy
corridor security from the perspective
of the Russia-Ukraine conflict.
Front. Mar. Sci. 12:1687708.
doi: 10.3389/fmars.2025.1687708

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Legal issues on China's maritime energy corridor security from the perspective of the Russia-Ukraine conflict

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The sanctions and embargoes resulting from the Russia-Ukraine conflict have triggered non-traditional risks, presenting significant challenges to international cooperation. Given the escalating situation concerning China's sustainable maritime energy transport corridors, the establishment of a security governance mechanism for these corridors is urgently needed. However, upon examining and analyzing the legal foundation of China's sustainable maritime energy transport corridors, it becomes evident that several issues persist. These include the limited effectiveness of conventions related to maritime energy transport corridors, the absence of cohesive security governance efforts among different entities, and inadequate coordination mechanisms. These challenges hinder traditional security governance mechanisms from effectively addressing the security issues surrounding energy corridors in the backdrop of the Russia-Ukraine conflict. To address this, China should institute a security governance mechanism for maritime energy transport corridors by promoting the objectives of fostering an energy community with a shared future, adhering to a comprehensive approach to national security, and upholding the principle of risk prevention. Specifically, this entails the need to develop specialized conventions for maritime energy transport, enhance multilateral security cooperation agreements among states along these routes, and establish an international legal framework to safeguard maritime energy corridors. Furthermore, a diverse cooperation network should be established among coastal states hosting energy corridors and international organizations under the guidance of the United Nations. Additionally, a cooperation mechanism and a varied dispute prevention and resolution system should be instituted to pave the way for the legal protection of sustainable maritime energy corridor security.

KEYWORDS

Russia-Ukraine conflict, maritime energy corridor security, principle of risk prevention, energy community with a shared future, holistic approach to national security

1 Introduction

As annual consumption of energy resources continues to rise to fuel growing economies, energy demand in most countries has evolved into a necessity (U.S. Energy Information Administration, 2023). On February 24, 2022, Russian President Putin announced the commencement of a “special military operation” against Ukraine (Osborn and Nikolskaya, 2022). Through the interconnected international system and global market, the Russia-Ukraine conflict has slowed down and, in the future, will continue slowing down the progress of technical, environmental, economic, and social sustainability of human beings (Zhao et al., 2023). Since the outbreak of this conflict, Russia has been blockading Black Sea harbors and implementing embargoes. Apart from exerting a significant influence on the world, the Russia-Ukraine conflict outbreak has also posed challenges to China’s maritime energy corridors.

First, the situation concerning China’s maritime energy corridors became tense: Political instability in the Middle East and Africa has also escalated amid the Russia-Ukraine conflict. China’s ocean-going shipping routes, particularly the crucial westward route, largely trace the periphery of the Eurasian Continent (Braw, 2025). With ongoing ethnic conflicts, contradictions, as well as pervasive terrorism and piracy, this area is dubbed the “arc of world turmoil”. These regions intersect with China’s maritime energy corridors (Kumar, 1984). During the Cold War, the United States and the Soviet Union maintained a strategic balance of power, which helped alleviate regional conflicts to some extent. However, after the Cold War ended, the Huangyan Island dispute and the South China Sea Arbitration case escalated geopolitical instability in the Asia-Pacific region, heightening political risks to the security of China’s vital maritime energy transport corridors in this area. The governance of the South China Sea is a significant part of global ocean governance and the future situation of the South China Sea has aroused the attention of many parties (Sun et al., 2021). Simultaneously, the presence of the US Fifth Fleet in the Indian Ocean poses a threat to the security of China’s crucial maritime energy transport corridors. Furthermore, the Russia-Ukraine conflict heightened the already tense situation between China and Taiwan. On August 2, 2022, Speaker Pelosi of the US House of Representatives visited Taiwan in an official capacity, exacerbating the situation in the Taiwan Strait (Xin and Wang, 2023).

Second, challenges have emerged for international cooperation on maritime energy corridors: Russia, a strategic partner on which China can rely for maintaining maritime security, may bolster the United States’ blockade and control over China’s maritime energy routes. Following the Russian-Ukraine conflict, international energy cooperation has become more strained. The United States and Europe have imposed sanctions on Russia, expelled Russia from the SWIFT system, and halted oil trade with Russia, aiming to severely impact Russia’s economic development by curbing its energy exports (Milov, 2022). Against this backdrop, the escalating Russia-Ukraine conflict has heightened European

concerns about potential disruptions to Russian energy supplies (Amelang et al., 2023), leading to further increases in oil and natural gas prices. Presently, Western nations like the United States are continuously supplying military aid to Ukraine, and the North Atlantic Treaty Organization’s (NATO) eastward expansion persists despite Russia’s security apprehensions. Neutral states such as Finland and Sweden have already joined NATO, forming an anti-Russian alliance across Europe. These developments are likely to significantly influence the global energy market, complicating cooperation on China’s maritime energy corridors (Joshi, 2023).

Third, non-traditional risks have been triggered for maritime energy corridors: Presently, the main non-traditional security risks encountered by maritime energy corridors encompass pipeline security, terrorism, and pirate attacks. Here, a critical prerequisite for analyzing security threats is to delineate between traditional and non-traditional security, a distinction that this manuscript clarifies through the lens of the Copenhagen School. Following mainstream International Relations scholarship (Buzan et al., 1998), traditional security is primarily concerned with the survival of the state, focusing on military threats, armed aggression, and high-political issues like sovereignty and territorial integrity. In contrast, non-traditional security encompasses transnational challenges that threaten the well-being of states and peoples but are not primarily military in nature, such as economic instability, energy supply disruptions, terrorism, and piracy (Beidollahkhani and Rahmani, 2023). In 2019, a total of 82 piracy and armed robbery incidents against ships (comprising 71 actual incidents and 11 attempted incidents) were reported in Asia. This reflects an 8% rise in the overall number of incidents and a 15% increase in actual incidents reported in 2019 compared to 2018 (ReCAAP ISC, 2019). While traditional threats persist (United Nations Security Council, 2025), the frequent occurrences of piracy and maritime terrorism have led to an ongoing deterioration in the security situation along China’s vital maritime energy corridors. Currently, the international environment is growing increasingly complex and exhibits a noticeable rise in instability due to the repercussions of the Russia-Ukraine conflict. International maritime transport corridors are confronting numerous threats, such as maritime hegemony (the risk of blockade and isolation), disputes over maritime rights and interests (conflicts over maritime rights and interests with neighboring states), and pirate attacks. Therefore, China must strengthen its capacity for safeguarding the security of international maritime corridors and enhance its ability to handle international transport emergencies, so as to guarantee its economic security and the security of overseas interests (Heath, 2018).

The Russia-Ukraine conflict itself has become a potent case study in the vulnerability of global maritime energy corridors. The blockade of Black Sea ports and the targeting of energy infrastructure have not only disrupted regional energy flows but also demonstrated how geopolitical conflicts can be weaponized against critical chokepoints. For instance, the disruption of grain and energy shipments from the Black Sea region has led to increased insurance premiums, rerouting of vessels, and

heightened security risks for all maritime traffic in the area (UN Trade and Development, 2024), which has seriously affected the local economic development (Figure 1). This precedent directly illustrates the types of threats that China's maritime energy corridors could face in a context of heightened geopolitical tension. In this context, the paper discusses the security governance rules, systems, and cooperation mechanisms of China's maritime energy corridors. It is based on a summary of the maritime energy corridor crisis in the Russia-Ukraine conflict. The paper argues that China should adhere to a holistic approach to national security, based on the strategy of becoming a maritime power and pursuing the goal of establishing an energy community with a shared future. China should observe the principle of risk prevention and establish a security governance mechanism for maritime energy corridors. These measures would provide powerful guarantees for safeguarding national energy security.

2 Security governance of maritime energy corridors should be enhanced in the Russia-Ukraine conflict

As mentioned above, the Russia-Ukraine conflict has intensified the situation around China's maritime energy transport corridors, posing challenges to international cooperation and triggering non-traditional risks. Therefore, it is urgent to enhance the security governance of maritime energy corridors.

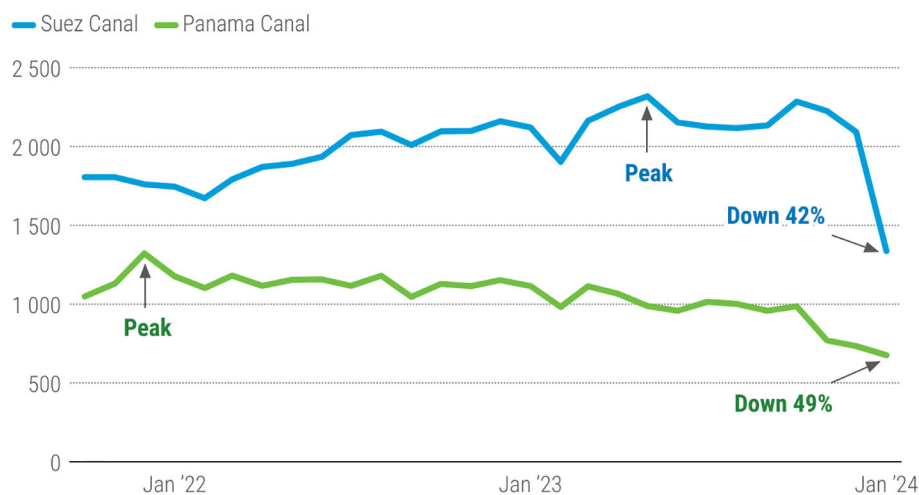
2.1 Security governance of maritime energy corridors is an important measure for safeguarding national security

China's significant energy dependency underscores the critical importance of governing the security of maritime energy corridors for China's energy security and even national security. In 2009, China's external oil dependency surpassed the international warning threshold, reaching 51.2%, a figure that escalated to 72% by 2022 (Energiewende, 2022). Considering the present circumstances and China's economic development stages, there is an unavoidable trend towards increased future oil consumption. The ramifications of the escalating Russia-Ukraine conflict on China's energy security predominantly manifest as follows: The United States and Europe have enforced energy sanctions on Russia, necessitating China to choose sides (Plaza, 2013). Should China contravene these sanctions, it risks facing sanctions itself. This has primarily brought about the following five risks: Firstly, sanctions have led to a surge in global energy prices, increasing the cost of energy imports for China. Particularly, insurance premiums for vessels transiting conflict-adjacent routes have surged, adding substantial costs to energy transportation. Secondly, the United States has rallied ASEAN, Japan, Korea, and other states to establish an Asian NATO aimed at constraining China's principal energy transport routes, heightening latent threats to strategic oil and gas passageways. Specifically, China's oil imports must traverse the transport corridors of the Malacca Strait, posing significant threats



Transits almost cut in half in the two international canals

Number of monthly transits in Suez and Panama Canals, October 2021–January 2024



Source: UNCTAD calculations, based on data from Clarksons Research.

FIGURE 1
Suez and Panama Canals See Sharp Drop in Monthly Transits.

to energy security. Thirdly, the United States might leverage its dominance and international political influence in the Middle East to disrupt cooperation between China and key oil-producing states in the region, compelling suppliers collaborating with China in this area to cease oil supplies to China. Thus, the redirection of global energy flows has created new congestion points and logistical bottlenecks in alternative routes, straining existing maritime infrastructure. Fourthly, the extraterritorial reach of the United States discourages certain states from engaging in Chinese projects and may even lead them to refuse cooperation with China. Therefore, the ongoing and pending energy cooperation projects encounter increased uncertainties. If these projects are postponed or scrapped, the loss of prior investments will be substantial (Sun, 2023). Thus, China should elevate its maritime corridor security to a national strategy, creating a robust external environment for economic development and offering more effective strategic support for national security (Xi, 2016).

2.2 Existing governance systems for maritime energy corridors can hardly handle the challenges brought by the Russia-Ukraine conflict

The 21st Century Maritime Silk Road proposed by China significantly overlaps with China's maritime oil transport routes. Therefore, constructing the 21st Century Maritime Silk Road is of great significance for safeguarding the security of China's maritime energy corridors (Chang, 2018). The maritime energy corridor is an energy route spanning the Asian, European, and African continents, aiming to connect the South China Sea, Indian Ocean, and Mediterranean Sea. However, the states along the route generally lack the necessary capabilities to develop interconnectivity infrastructure (Wang and Selina, 2018). Firstly, these states exhibit limited abilities in infrastructure construction, particularly in terms of insufficient transport capacities. Secondly, these states rely solely on a few financing channels and lack effective platforms for international cooperation. Furthermore, states along the route often face challenges related to inadequate transportation and logistics capacities, resulting in inefficient and time-consuming goods transportation. These practical issues complicate the management of security within maritime energy corridors (Kuteyi and Winkler, 2022).

When considering the security situation of maritime energy corridors, it is essential to recognize that China's maritime energy corridors cover long transport distances, making the vulnerability of maritime transport security a significant concern. Moreover, as changes in the international order have reshaped the global energy political landscape, maritime energy transport corridors have been profoundly affected by political competition, resulting in mounting pressure on transportation and escort services (Gulati and Babu, 2022). Additionally, the threats posed by the Covid-19 pandemic and the Russia-Ukraine conflict on maritime energy transport are

on the rise, further intensifying the pressure on energy transportation. Nevertheless, China has not established a maritime transport security governance system that adequately addresses the security risks associated with maritime energy corridors (Jingye Liu et al., 2025). China's involvement in these international cooperation legal frameworks is insufficient, having joined only recently and playing a relatively restricted role (The European Centre of Excellence for Countering Hybrid Threats, 2023).

In terms of international cooperation on maritime energy corridors, several international organizations and platforms exist in regions connected to China's maritime transport corridors, such as the Association of Southeast Asian Nations (ASEAN) Community in Southeast Asia, the Pacific Community, and the regional economic cooperation of Organization of the Petroleum Exporting Countries (OPEC). However, these organizations have not established any departments specifically dedicated to maritime energy transport and cooperation. As a result, their oversight of China's maritime energy transport corridors is limited. Additionally, China's involvement in these international cooperation legal frameworks is insufficient, having joined only recently and playing a relatively restricted role (The European Centre of Excellence for Countering Hybrid Threats, 2023). Given the context of the Russia-Ukraine conflict, the heightened geographical tensions between China and neighboring states have become more pronounced.

When considering the non-traditional security aspects of maritime energy corridors, political risks, piracy, and terrorist attacks emerge as the top three types of risks confronting the development of these corridors. Traditional security and non-traditional security are typically intertwined. For example, the states along China's Maritime Silk Road possess abundant natural resources, leading to a heavy reliance on these resources for development. However, they lack the essential infrastructure for sustainable economic progress, resulting in persistent ethnic and regional issues as well as intense social conflicts (Song and Fabinyi, 2022). Furthermore, current oil transportation primarily relies on maritime shipping. However, maritime corridors have become targets for pirate attacks and terrorist activities, posing significant threats and challenges to the security of China's maritime energy corridors. Specifically, pirate activities have been on the rise, particularly under the backdrop of the Russia-Ukraine conflict. The United Nations Convention on the Law of the Sea provides only singular definitions of piracy that may not fully address the requirements for combating piracy (Li and Chang, 2021).

In conclusion, the states situated along maritime energy corridors are confronted with challenging circumstances and compounded non-traditional risks amidst the Russia-Ukraine conflict. Additionally, China's maritime laws lack extraterritorial reach, and inherent issues persist in the security governance mechanism of maritime energy corridors. These factors collectively make it challenging for China to address the issues related to maritime energy corridor security (Li, 2023).

2.3 Security governance of maritime energy securities is the key to safeguarding energy security

Broadly speaking, energy security primarily pertains to the safeguarding of oil supplies. Presently, China predominantly imports oil via routes traversing the Middle East, Africa, and Latin America. With the exception of the branch line in Panama, all these routes must transit through the Malacca Strait. The corridors for oil imports along this route are predominantly concentrated in the Middle East and African regions. Hence, the Malacca Strait can be aptly described as the chokepoint of China's maritime oil transportation (Paszak, 2021). Secondly, oil exports from the Middle East constitute 50% of the total maritime oil transport volume passing through the Strait of Hormuz. Moreover, China's maritime energy corridors are exposed to the inherent risk of relying heavily on singular routes, given that nearly 80% of China's oil imports are transported by sea. Additionally, the United States exerts control over global oil passageways, enabling it to enforce oil embargoes that could potentially sever China's maritime transport lifeline during critical junctures. Consequently, ensuring the security of China's energy corridors is imperative for bolstering the country's energy security guarantees. In summary, maritime energy corridor security plays a pivotal role in safeguarding China's energy security.

3 Status and dilemmas of security governance of maritime energy corridors

In order to bolster the security governance of maritime energy corridors, it is imperative to comprehensively summarize and clarify their current status from a legal foundation perspective. During the

analysis, the predicaments and limitations inherent within the existing policies and legal frameworks can be uncovered. This revelation will be crucial in guiding subsequent efforts aimed at addressing these challenges and fostering more effective security governance.

3.1 Legal basis of energy transport corridors

Existing regulations for safeguarding maritime energy corridors are currently evident in global, regional, and bilateral cooperation efforts. However, there is a lack of comprehensive legal frameworks or international conventions specifically addressing maritime transport corridors.

3.1.1 International conventions led by the United Nations

The conventions are listed in Table 1.

3.1.2 International conventions formulated by international organizations

The International Maritime Bureau, the International Maritime Organization (IMO), and other organizations have developed a range of international conventions, such as the *UN Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation*, to address the challenges related to maritime corridor security (see Table 1). Moreover, the IMO has established the Piracy Reporting Centre and other specialized institutions dedicated to maritime corridor security (United Nations Conference on Trade and Development, 2014).

3.1.3 Regional legal cooperation mechanism

Through years of practical development, a relatively comprehensive regional security cooperation mechanism has been

TABLE 1 Main conventions concerning maritime energy corridors.

Time	Name of convention	Involved content
1919	<i>Covenant of the League of Nations</i>	Article 23 (e): will make provision to secure and maintain freedom of communications and of transit and equitable treatment for the commerce of all Members of the League. (The earliest relevant convention passed)
1921	<i>Convention and Statute on Freedom of Transit</i>	Article 2: Subject to the other provisions of this Statute, the measures taken by Contracting States for regulating and forwarding traffic across territory under their sovereignty or authority shall facilitate free transit by rail or waterway on routes in use convenient for international transit. (The first convention on safeguarding the freedom of passage and transit)
1958	<i>Geneva Conventions on the Law of the Sea</i>	Countries along the route have the right to develop natural resources but shall not interfere with a country's pipeline laying on the continental shelf.
1965	<i>Convention on Transit Trade of Land-locked States</i>	It acknowledged the right of inland states in free access to the sea.
1982	<i>United Nations Convention on the Law of the Sea</i>	It not only stipulates the responsibilities and compensations for destructing or damaging undersea pipelines and the pollution caused by pipelines to the sea, but also defines and stipulates acts of piracy.
1988	<i>Convention on the Suppression of Unlawful Acts Against the Safety of Maritime Navigation</i>	It stipulates criminal acts, criminal jurisdiction, extradition clauses, etc., reflecting the thinking of safeguarding peace and security for maritime energy corridors. (It's an international convention on preventing illegal acts at sea)
1998	<i>Energy Charter Treaty (ECT)</i>	As the international convention with the largest influences in the energy sector, the most detailed content, and the most contracting states, it formulated a series of laws and rules on energy transport, energy utilization, and energy dispute settlement. (Although China is not a member state, it has been an observer state)

Source: Created by the author.

progressively established in the Asia-Pacific region intersected by the Maritime Silk Road. The member states of the Shanghai Cooperation Organization signed *the Agreement on the Exchange of Information on Energy Regulation by the Customs of the SCO Member States* and other agreements, furnishing a legal foundation for fortifying peace and security in the energy sectors. As an official political and security cooperation platform in the Asia-Pacific region, the ASEAN Regional Forum adopted *the Declaration on Strengthening Cooperation among Maritime Law Enforcement Agencies, the Declaration on Recent Terrorist Attacks*, and other documents, explicitly urging for the initiation of rigorous crackdowns on criminal activities that jeopardize maritime security (Agastia, 2021). In April 2019, the Belt and Road Energy Partnership (BREP) was established in Beijing, and the *Cooperation Principles and Concrete Actions of the Belt and Road Energy Partnership* were published, laying the groundwork for advancing the implementation of the Belt and Road initiative (BRI) and enhancing peace and cooperation in maritime energy corridors (Kivalov, 2023). In October 2021, the *Charter of the Belt and Road Energy Partnership* mandated the regular convening of energy ministerial meetings and energy partnership forums, thereby enhancing the international cooperation framework for energy security along the Belt and Road. The BRI is China's strategic project to use infrastructure investments to gain influence over principal seaports, airports, and railways across the globe. And this initiative furnishes policy support for upholding the security of maritime energy corridors (Wang, 2021). Furthermore, *the Regional Cooperation Agreement on Combating Piracy and Armed Robbery against Ships in Asia* (ReCAAP) represents a pivotal specialized mechanism for maritime security coordination, particularly in the Malacca Strait. However, its overall effectiveness is often debated in academic and policy circles. Critics point to its structural limitations. A key weakness has been the non-universal participation of critical littoral states; for most of its history, Indonesia was not a contracting party, and Malaysia remains outside the agreement (ANIP Research Report -Sea Power Centre Australia, 2025), creating a significant governance gap in the very region it aims to protect. Furthermore, the voluntary and non-binding nature of its coordination mechanisms means it lacks enforcement power, relying instead on the political will and capacity of individual members.

3.1.4 Bilateral legal cooperation mechanism

While developing the Maritime Silk Road, China has initiated a series of bilateral cooperations with states along the route regarding maritime energy rescue, joint patrols, and other maritime security matters (Len, 2015). For instance, China and Malaysia signed the *Memorandum of Understanding on Maritime Cooperation between China and Malaysia*, which covers areas such as the Malacca Strait Tunnel, shipping, and rescue. Additionally, China and Vietnam established the Beibu Gulf Joint Patrol Office, which has conducted several joint patrols in the Beibu Gulf. An Asia-Pacific regional security cooperation framework is currently under construction.

3.2 Review of legal mechanisms for maritime energy corridors

Amid the Russia-Ukraine conflict, current policies and laws are insufficient to address the security governance of maritime energy corridors (Al-Saidi, 2023). The security governance of energy maritime corridors encounters the following issues: the absence of definitive rules, inefficiencies within governance systems, and the inadequacy of security mechanisms specifically tailored for these corridors.

3.2.1 Lack of rules for the security governance of maritime energy corridors

The international conventions spearheaded by the United Nations lack comprehensive legal frameworks for energy corridor transportation, and the regulations governing energy corridor transport primarily consist of fundamental, guiding, and operational principles that do not offer legal coverage and comprehensive protection for energy transportation.

Moreover, many norms within international conventions are not mandatory, allowing respective states to limit the enforcement of international laws and regulations through implicit and explicit actions, such as ratified treaties (Bąkowski, 2021). While offering more flexibility to national actions to a certain extent, this situation actually heightens the challenges for states to negotiate and enforce transnational energy transport agreements. When violations of international conventions happen, it becomes arduous to ensure compliance through compulsory measures or fully utilize the international legal frameworks (Guzman, 2005).

In the broader context of the international legal system, there is a lack of legislation specifically addressing the security of maritime energy corridors. Consequently, the legal frameworks aimed at preserving maritime energy corridor security are fragmented and inconsistent (Hafner, 2004). The relationship between China and Western states is shrouded in uncertainty due to the Russia-Ukraine conflict. Additionally, the Western world has imposed stringent sanctions on Russia, posing significant challenges to the security of China's maritime energy corridor transportation (Chabarovskaya, 2025). Therefore, establishing a systematic and comprehensive legal guarantee system not only allows China and states along energy corridor routes to jointly combat and eradicate terrorist activities through cooperative agreements but also ensures that they can enhance maritime security cooperation, thereby effectively safeguarding the security of China's vital maritime energy transport artery.

The *Energy Law of the People's Republic of China* has been officially implemented since January 1, 2025, marking the final establishment of the basic legal framework in China's energy sector. But the legal norms for international cooperation in energy security still require enhancement. Furthermore, specific Chinese laws, such as *the Law of the People's Republic of China on Electric Power* and *the Law of the People's Republic of China on Renewable Energy*, have not been revised for years, with no provisions related to

international energy security cooperation. At the same time, China's Law on Oil and Natural Gas Pipeline Protection primarily safeguards the transportation security of domestic oil and natural gas pipelines but lacks extraterritorial reach. The absence of domestic regulations also obstructs the development of legal frameworks for China's maritime energy corridor security (Ishwaran et al., 2017).

3.2.2 The governance systems of corridor security are unsmooth

The security challenges of maritime energy corridors stem not only from traditional and non-traditional safety factors but also involve aspects such as shipping standards, maintenance of navigation routes, and other technical considerations. To enhance international cooperation on maritime energy corridor security, international organizations like the IMO and International Hydrographic Organization (IHO) must bolster collaboration and collectively promote the security management of maritime energy corridors. However, the relationships among the United Nations (UN), coastal states, maritime transport entities, and international energy organizations remain strained, lacking a multi-stakeholder cooperation framework for securing maritime energy corridors. Consequently, the absence of enforceable regulations places international security mechanisms in a reactive stance against specific threats, thereby becoming a basis for conflicting parties to level accusations against each other (Farber et al., 2021).

3.2.3 Security governance mechanisms for maritime energy corridors are incomplete

International cooperation is a vital approach to ensuring the security of maritime energy corridors. Nevertheless, issues persist within international cooperation mechanisms, regional cooperation frameworks, and bilateral collaborations concerning maritime energy corridors (Rettig, 2024). In international cooperation, maritime energy corridors are influenced by both traditional and non-traditional security factors; cooperation among pertinent international organizations is often hindered, leading to ongoing contradictions and conflicts in energy cooperation between states. Concerning regional cooperation mechanisms, the security of maritime energy corridors is prone to being impacted by political factors like the Russia-Ukraine conflict, and cooperation structures are typically unsustainable due to inter-country conflicts. Within bilateral cooperation mechanisms, many international norms or conventions lack sufficient mandatory constraints on national actions, potentially resulting in the inability to secure the passage of straits during situations like the Russia-Ukraine conflict (United Nations Security Council 9448TH Meetings Coverage, 2023). The reasons for the aforementioned issues are as follows: Presently, there is no overarching energy organization specifically focused on maritime energy corridors. For instance, international energy institutions and other organizations lack broad international representation due to the constraints imposed by member states (International Renewable Energy Agency, 2023). Security cooperation regarding maritime energy corridors is characterized by being fragmented and diverse. Furthermore, there is a lack of

precise measures for coordinating maritime energy corridors; the existing information-sharing mechanisms are incomplete, and the negotiating parties have unequal status. These issues collectively impact the efficacy of cooperation. Consequently, addressing the security governance challenges of maritime energy corridors during the Russia-Ukraine conflict proves inherently challenging. In terms of averting security risks in maritime energy security, current security governance mechanisms for maritime energy corridors have not put forth strategies for preventing, detecting, and managing security risks within these corridors (Borchert, 2014). Consequently, the focus on maritime energy security transitions from managing risks to mitigating actual harm.

Furthermore, there is no comprehensive dispute settlement mechanism for maritime energy corridors (Bautista, 2014). For instance, the Maritime Silk Road upholds the principles of consultation, contribution, and shared benefits. This implies that disputes regarding energy cooperation are primarily resolved through negotiations and dialogues among participating states, a process that can be easily constrained by shifts in the objective context. The lack of a transparent and standardized dispute settlement mechanism could potentially trigger and exacerbate external public opinions, casting doubt on China's intentions in establishing a security cooperation framework for maritime energy corridors (Li and Chang, 2021). The lack of a dispute settlement mechanism amid the Russia-Ukraine conflict may prompt the United States and European states to influence the positions of states along the route, hindering the establishment of a security cooperation framework for maritime energy corridors (Wang and Zakheim, 2025).

4 Legal logic for China to conduct security governance of maritime energy corridors

In the context of the Russia-Ukraine conflict, it is crucial to pursue the objective of constructing an energy community with a shared future to govern the security of maritime energy corridors effectively (Nadkarni et al., 2024). This entails prioritizing the interests of all parties concerning energy development needs and reconciling ideological disparities among the involved parties. By adopting a comprehensive approach to national security, the security of maritime energy corridors should be safeguarded considering various factors. Moreover, theoretical backing should support the security governance strategies for maritime energy corridors, emphasizing the principle of risk prevention.

4.1 Integrate the security governance subjects of maritime energy corridors based on the goal of building an energy community with a shared future

The Russia-Ukraine conflict has had a significant impact on global energy supplies. Consequently, states along the route must

contemplate how to address energy issues through collaborative endeavors. The energy community with a shared future serves as a platform established by coastal states along the route, emphasizing voluntary equality to promote exchanges and security (Wang et al., 2019). In pursuit of establishing an energy community with a shared future, significant attention should be given to fostering cooperation among the stakeholders of maritime energy corridors to realize the vision of international cooperation and mutual benefit in the energy sector. Throughout this endeavor, the creation of an energy community with a shared future involving the United Nations, coastal energy states along the route, and international organizations holds the following significance:

Firstly, the energy community with a shared future is essential alongside the broader concept of a community with a shared future for humanity. The security governance of maritime energy corridors fundamentally involves the implementation of the idea of constructing a community with a shared future for humanity (The State Council Information Office of the People's Republic of China, 2023). In the midst of the Russia-Ukraine conflict, harmonizing differences among conflicting parties and overseeing maritime energy cooperation in a possibly tense global environment distinctly embodies the concept and ethos of establishing a community with a shared future for humanity. This approach can actualize the concept of an energy community with a shared future through actionable steps and the establishment of clear objectives for international maritime energy cooperation.

Secondly, constructing an energy community with a shared future exemplifies the role of security governance in international cooperation concerning maritime energy corridors. An essential tenet of establishing the 21st-century Maritime Silk Road is consultation, contribution, and shared benefits (State Council of PRC (2023)). By establishing an energy community with a shared future, it becomes possible to integrate disputes among involved parties into a cohesive framework. This approach enhances policy dialogue regarding maritime energy security cooperation, enabling the harmonization of energy interest pursuits among collaborating states. It also works towards eliminating energy trade barriers, reducing trade and investment costs, and promoting energy collaboration among coastal states along the route. Ultimately, this contributes to achieving global prosperity and fostering high-quality economic development (Jia and Ye, 2024).

Thirdly, an energy community with a shared future plays a vital role in safeguarding China's energy security and advancing energy reform (Moghani and Loni, 2025). By establishing such a community, China can broaden its avenues for energy imports and enhance its energy reserve capabilities to address potential fluctuations in the external landscape. Furthermore, the energy community with a shared future enhances communication among coastal states along the route regarding energy technology, boosts the efficiency of utilizing China's renewable energy resources, fosters advancements in the energy sector, and facilitates energy reform initiatives (Marouani et al., 2023).

4.2 Integrate the security governance elements of maritime energy corridors through the holistic approach to national security

The Russia-Ukraine conflict has impacted energy prices, transportation, and consumption, subsequently affecting energy security and even national security. Traditional national security focuses solely on war and military security, often overlooking energy security. Recognizing this, China broadened its approach to national security as early as 2014, extending beyond traditional military concerns to encompass non-traditional sectors like energy and cyberspace. This holistic approach represents a more comprehensive and systematic network that embodies China's evolving security governance strategies. Consequently, China must prioritize safeguarding energy security within this integrated national security framework.

The holistic approach to national security stresses the importance of considering all factors influencing national security, providing a theoretical foundation for governing maritime energy security corridors. Within this framework, it is crucial to recognize that maritime energy corridor security can be categorized as non-traditional security, necessitating the consideration of various security governance elements. In essence, a comprehensive approach to the security governance of maritime energy corridors must be adopted to address the security challenges they present.

Specifically, within the context of the holistic approach to national security, three main aspects should be considered for the security governance of maritime energy corridors: Firstly, the interplay between traditional security factors (such as sovereignty, military issues, and regional conflicts) and non-traditional security elements (involving states and ideologies) within maritime energy corridor security. Secondly, Striking a balance between the development and safety aspects of maritime energy corridor security. Thirdly, managing the relationship between self-security (focusing on China's maritime energy corridor security) and collective security (addressing the shared security interests of countries along maritime energy corridors) (U.S. Department of Defense, 2024).

4.3 Provide a theoretical basis for the security governance measures of maritime energy corridors under the principle of risk prevention

The Russia-Ukraine conflict could potentially pose risks to the transportation of maritime energy corridors (Center for Strategic and International Studies, 2025). Therefore, China should proactively identify the risks associated with maritime energy corridors and implement preemptive measures in managing maritime energy security to prevent the onset of an energy crisis in China.

The principle of risk prevention has been enshrined in the domestic environmental laws of various countries. In 1984, Germany introduced the principle of risk prevention at the International Conference on Protecting the Northern Sea to mitigate potentially severe environmental damage and uncertain yet probable consequences. Subsequently, this principle has been incorporated into international law. The fifth article of the Rio Declaration states: “In order to safeguard the environment, states should broadly employ the precautionary approach in accordance with their capabilities. When faced with threats of irreversible damage, the absence of full scientific certainty should not justify postponing cost-effective measures to prevent environmental degradation.” While international laws may not explicitly define the principle of risk prevention, Article 15 of the Rio Declaration can be viewed as embodying the essence of this principle (Nicolas de Sadeleer, 2021).

The principle of risk prevention stands as a foundational tenet in international environmental laws, extensively utilized in diverse forms of environmental protection and echoed in multilateral agreements. For instance, the *Convention on Biological Diversity* specifies that the absence of scientific consensus should not serve as a justification for failing to implement preventative actions against activities or occurrences that harm biodiversity. The *Kyoto Protocol* similarly underscores the significance of risk prevention principles in addressing global climate change. Furthermore, this principle has been frequently referenced in legal matters concerning Japan’s release of nuclear-contaminated water (Li and Wang, 2023). In the context of the Russia-Ukraine conflict, resolving potential wars and conflicts becomes increasingly crucial. When wars, conflicts, and other potential threats arise, they must be addressed through a series of systems and measures.

In essence, concerning the risks associated with maritime energy corridors, a security governance mechanism for these corridors should be established based on risk identification, risk prediction, risk management, response, and risk communication. When considering the security risks of maritime energy corridors, it is essential to proactively identify the political, technical, and legal risks associated with them, implement timely and effective preventive measures, gather sufficient information to establish a risk communication framework, and promote cooperation among coastal countries in addressing the security risks of maritime energy corridors.

5 Security governance paths for sustainable maritime energy corridors under the Russian-Ukraine conflict

In the Russia-Ukraine conflict, the security governance of maritime energy corridors should aim to establish an energy community with a shared future, adhere to the principles of the holistic approach to national security, use the principle of risk prevention as a foundational concept, and develop the foundation, mechanisms, and systems for the security governance of maritime energy corridors.

5.1 Clarify the security governance basis of maritime energy corridors

5.1.1 Formulate special conventions on maritime energy corridors

To effectively manage maritime energy cooperation and address security collaboration issues in maritime energy corridors, special conventions can be developed with the guidance of China and the involvement of countries along the route. This approach aims to address the challenges arising from the Russia-Ukraine conflict (Lestari et al., 2022). In 2019, the countries participating in the BRI jointly launched the *Principles of Cooperation and Practical Actions* under the leadership of China. These principles encompass the goals, principles, and practical steps for energy cooperation, laying a foundation for establishing a legal framework for maritime energy corridor security. Consequently, conventions regarding maritime energy corridor security can be established within this framework and further segmented to create new sets of rules. Specifically, this entails the following seven components: First, establish a transport management mechanism for maritime energy corridors to specifically formulate rules regarding energy transportation for countries along the route. Secondly, develop legal principles, rules, standards, and relevant measures for energy transit transportation. Thirdly, establish an information-sharing and exchange platform for maritime energy corridors to ensure the free flow of information among member states. Fourthly, specify detailed regulations concerning taxation, customs clearance, and service trade related to energy transport. Fifthly, stipulate rules on jurisdiction and guidelines for addressing security issues within transnational energy corridors. Sixthly, clarify a dispute prevention and resolution mechanism. Lastly, formulate regulations to oversee and implement policies following the resolution of disputes. The mentioned articles aim to establish a legal framework for the security of maritime energy cooperation and transportation. Firstly, these articles offer guidance for energy cooperation among member states and ensure the security of energy corridors. Secondly, they provide a foundation for combating actions on land and at sea that endanger oil pipelines and terrorist activities (Blueprint Energy Solutions GmbH, 2019).

5.1.2 Improve the multi-lateral cooperation agreements between countries along the route

Legal protection for maritime energy security corridors can be established through the signing of regional agreements to address the impacts of conflicts such as the Russia-Ukraine conflict. Unlike other commodities, energy resources are characterized by a limited supply, unequal distribution, and long-term extraction processes. Energy-consuming and energy-producing states significantly vary in their short-term political rights and interests, making it challenging to reach a consensus on energy matters. In the context of the Russia-Ukraine conflict, ensuring the security of maritime energy corridors becomes increasingly crucial to address future potential threats and challenges (Liliansa, 2023). In recent years, countries along the route have entered into a series of bilateral and multilateral agreements to facilitate energy cooperation,

providing a robust guarantee for security collaboration in energy corridors.

In 2019, China proposed the establishment of the Gulf Security Dialogue platform, receiving support from countries within and outside the region. On February 16, 2023, the *Joint Declaration between the People's Republic of China and the Islamic Republic of Iran* highlighted that China and Iran emphasized the significance of peace and stability in the Persian Gulf region for global security and energy transportation. Iran also welcomed China's initiative to enhance security and stability in the Middle East and facilitate dialogue among countries in the Persian Gulf region. Subsequently, on March 22, 2023, China and Russia collectively signed and issued the *Joint Statement of the People's Republic of China and the Russian Federation regarding the Enhancement of the Comprehensive Strategic Partnership of Coordination for the New Era*. In the statement, both parties emphasized their commitment to collectively safeguarding international energy security, which includes protecting key cross-border infrastructure and upholding the stability of the energy industry and supply chains (Xinhua, 2025). The maritime energy security governance infrastructure is designed to serve multiple purposes. On one hand, it safeguards global maritime energy corridors by promoting cooperation and stability among all countries. On the other hand, it also ensures China's maritime energy security, which is an integral part of global energy security. China's efforts in this regard are not only for its own benefit but also contribute to the well-being of the international community. However, a legally binding multilateral cooperation agreement should be formulated among participating countries to protect national security, thereby enhancing the integration of energy resources from coastal states and ensuring national security. Furthermore, multilateral cooperation demonstration agreements can be developed to safeguard the security of maritime energy corridors. The cooperation between China, Russia, and Iran in the field of maritime energy security is not merely a reaction to Western sanctions. Instead, it is a significant step towards building a more inclusive and effective global governance framework. These partnerships aim to enhance energy security, promote regional stability, and facilitate cooperation among different countries. They contribute to the common goal of safeguarding global maritime energy corridors and promoting sustainable development.

In this context, a framework agreement can be reached on energy corridor security by drawing upon *ECT* and can be utilized as part of the BRI to offer a viable cooperation model for countries along maritime energy corridors and facilitate transnational oil and gas transportation. Essentially, the *ECT* stands as the sole multilateral cooperative agreement in the energy sector encompassing the entire energy value chain from extraction and transportation to utilization. On a broader scale, countries can use the *ECT* as a reference to establish a unified and comprehensive implementation system for maritime transportation projects. This may encompass an energy-specific information exchange mechanism, a pipeline transport security mechanism, mechanisms for safeguarding energy transport facilities, and a mechanism for resolving energy disputes among the relevant

countries (United Nations ESCAP, 2020). In addition, the responsibilities undertaken by the host country are a crucial component of this protocol. Presently, the international community generally believes that the regulations regarding national responsibilities are overly broad and basic, making them ill-suited to the evolving trends in the global economy and ecological environment in the modern era. Therefore, "stability clauses" should be incorporated into the convention, mandating that the host country establish a stable legal framework to ensure the legal environment of energy corridors.

5.1.3 Improve China's energy legislation

After the oil crisis in the 1970s, in order to cope with the difficulties which emerged, the Chinese Government formulated an energy development policy, namely, the 'adaption to local conditions, adoption of a multi-energy complementary system, comprehensive utilization and being cost-effective' (Chang and Wang, 2017). Enhancing China's laws and regulations on energy and maritime affairs is beneficial for harmonizing China's energy-related legislation, aimed at ensuring the security of maritime energy corridors and addressing the heightened security challenges in maritime energy corridors, particularly in the context of the Russia-Ukraine conflict.

Firstly, there is a need to draft and enact the *Law of the People's Republic of China on Energy* and coordinate the energy legislation system. The National Energy Administration published the draft of the Law of the People's Republic of China for public comment in April 2020 (Chen et al., 2020). Concerning international cooperation on energy security, Articles 84 to 89 outline the methods and substance of international collaboration on energy. This primarily involves engaging in energy cooperation through the conclusion of bilateral and multilateral treaties, establishing international cooperation organizations, and conducting consultations and dialogues. This cooperation spans domestic energy, information services, investment trade, and infrastructure development. Consequently, a solid foundation can be established to ensure the security of China's maritime energy corridors. Secondly, there is a need to amend specific energy laws and delineate regulations for international legal cooperation on energy. For example, the *Law of the People's Republic of China on the Protection of Oil and Natural Gas Pipelines* incorporated provisions concerning undersea oil pipelines and their corresponding protection measures. Thirdly, it is essential to enhance policies and legislation related to energy and maritime affairs to align with the trend of security cooperation within maritime energy corridors. Presently, there is a lack of policies, standards, and measures addressing energy corridor security in China. Therefore, policies, standards, and pertinent documents concerning security cooperation within maritime energy corridors should be developed in accordance with the principles of the BRI. This will offer institutional support and legal assurance for ensuring the transportation security of China's energy corridors and promoting international energy cooperation (Wang and Zhang, 2024).

5.2 Improve the diversified subject governance mechanism for maritime energy corridors

The security governance of maritime energy corridors is transnational and generally challenging for a single country to accomplish alone. When considering the coordination among stakeholders in the security governance of maritime energy corridors, it is essential to recognize that each stakeholder collaborates and manages global public affairs collectively within their respective sovereignties ([International Monetary Fund Working Paper, 2024](#)). Therefore, within the context of the Russia-Ukraine conflict, respecting the sovereignty of countries along maritime energy corridors involves harnessing the full potential of regional countries, maritime international organizations, and international energy organizations, while operating within the sphere of influence of the United States. This aims to enhance the diversified governance system involving various entities for maritime energy corridors.

Specifically, the security governance of maritime energy corridors necessitates the establishment of a security governance framework for such corridors, rooted in the leadership of the United Nations, regional collaboration, and engagement of international organizations. Initially, the security governance of maritime energy corridors should operate under the guidance of the United Nations. As the premier multilateral international body, the United Nations should assume a leading role in safeguarding the security of maritime energy corridors. It is crucial to uphold a maritime energy transport security framework that is compliant with international laws and to challenge security arrangements that uphold American hegemonic principles. Moreover, countries ought to embrace the concept of shared security, consider the legitimate security concerns of all states, refrain from pursuing unilateral absolute security, and ultimately realize a shared, comprehensive, cooperative, and sustainable security framework for the region ([Xinhua, 2022](#)).

Secondly, countries situated along maritime energy corridors should enhance cooperation. Subsequently, a maritime energy corridor security platform should be established, drawing upon the Maritime Silk Road Initiative. Given the convening of regular Belt and Road energy ministerial meetings, a dedicated maritime energy security platform could be established within this framework in the future. This platform would aim to further develop operational guidelines and procedural workflows, issue periodic security assessment reports, and bolster exchanges and communication concerning maritime energy corridors, laying the foundation for a well-established conference mechanism. The Belt and Road Initiative (BRI) has indeed undergone a significant adjustment as per the leadership's vision. In recent months, the focus on fewer, "high quality" projects represent a strategic shift that has a profound impact on the projects along the Maritime Silk Road. This revised approach will likely influence the selection and implementation of projects in different locations on the maritime routes. Consequently, it will also have a significant bearing on the ability of the BRI as a framework to govern maritime energy

security. For example, with the emphasis on high-quality projects, there will be a more targeted investment in infrastructure and cooperation initiatives that directly contribute to enhancing maritime energy security. This could involve the development of advanced port facilities, the establishment of efficient shipping routes, and the promotion of cooperation in energy exploration and transportation. Moreover, the focus on quality will lead to stronger partnerships and more sustainable cooperation models, enhancing the overall effectiveness of the BRI in governing maritime energy security.

Finally, international organizations should actively engage in the governance of maritime energy corridors. Establishing an amicable relationship between the primary oil-exporting states of coastal countries and international energy organizations should be achieved through robust economic and trade connections. Presently, China has fostered open lines of communication with major energy producers in the Middle East and Africa concerning energy import and export matters. Moving forward, it is imperative to reinforce economic and trade relationships among countries associated with the IMO and the International Energy Organization to bolster their influence and authority on issues concerning the security of maritime energy corridors, thereby diversifying the security landscape of maritime energy corridors ([EastWest Institute, 2008](#)).

5.3 Measures for optimizing the security governance of maritime energy corridor

In terms of security governance measures for maritime energy security, some countries have entered into various cooperation agreements, protocols, and treaties related to counter-terrorism and anti-smuggling efforts. Nonetheless, due to the absence of collaborative efforts among states, maritime criminals exploit legal loopholes in individual countries to evade legal repercussions, resulting in a surge in maritime crimes. In fact, the threat of piracy and armed robbery at sea remains persistent and has deteriorated to some extent ([IMB Piracy Reporting Centre, 2025](#)). In the era of globalization, a singular country encounters challenges in effectively managing the security of maritime energy pipelines, transportation security, and combating terrorist activities amid security governance issues stemming from conflicts such as the Russia-Ukraine conflict. Therefore, these challenges necessitate resolution through diplomatic, political, treaty-based, legislative, and other measures.

Maritime energy transport should follow the path of cooperation and prioritize achieving security through negotiations, mediation, conciliation, and other political and diplomatic methods, rather than relying blindly on violence or engaging in unilateral and hegemonic actions. Support and cooperation from countries along the route are crucial for ensuring the security and smooth operation of maritime energy corridors. Therefore, resolving energy disputes between countries through non-legal means is the preferred approach. The transportation of international energy pipelines often intersects with issues related to economic development, national

defense, security, and territorial and maritime sovereignty. Political and diplomatic negotiations offer the most effective routes for addressing this sensitive matter. Firstly, political negotiations can prevent energy conflicts from harming interstate relations. Secondly, diplomatic negotiations can prevent the emergence of new conflicts stemming from conflicting interests. Diplomatic negotiation stands out as the most efficient method for resolving disputes in international energy transport pipelines.

The countries situated along maritime energy transport corridors can come to a consensus and sign agreements to support each other in combating maritime terrorist activities (Storey, 2008). Building upon established jurisdiction agreements, China can draw upon the escort practices in the Gulf of Aden and cooperation models utilized in transboundary river regions. By signing security cooperation agreements, setting up a collaborative security platform, engaging in joint law enforcement activities, and conducting routine security patrols, direct actions can be taken to combat threats to the security of maritime energy corridors.

Moreover, disputes concerning maritime energy corridors can be addressed through judicial means. Specifically, international arbitration, mediation, and international judicial bodies can be chosen based on the nature of the parties involved, the type of dispute, and the focal point of the disagreement related to maritime energy corridor issues. Nevertheless, the inclusion of judicial mechanisms must be clearly outlined in cooperation agreements pertaining to maritime energy corridors. It is essential to note that integrating judicial processes should not impede the efficiency of energy corridors.

5.4 Perfect the guarantee mechanism for the security governance of maritime energy corridors

For significant energy (oil) importers, enhancing the security cooperation guarantee system for maritime energy corridors can effectively address the inherent challenges in energy cooperation and the emergence of new energy disputes triggered by the Russia-Ukraine conflict. This represents a crucial component in safeguarding energy corridor security and is a pivotal measure for upholding national security. Coastal states, primarily developing countries, often contend with political instability, terrorism, and other adverse factors. Therefore, the establishment of a dedicated risk prevention, international cooperation, and dispute resolution mechanism is imperative for mitigating risks, managing disputes, and fostering stability. Additionally, while the PCA Tribunal may be one of the dispute resolution mechanisms, China's stance was based on legitimate concerns about the jurisdiction and fairness of the process. It is important to note that China has always been committed to resolving disputes through peaceful means and in accordance with international law. However, when certain actions are perceived as being one-sided or unjust, it is natural for a country to defend its interests. Overall, China approaches international disputes with a rational and responsible attitude, taking into

account various factors and seeking peaceful and just solutions through diplomatic and legal channels.

To enhance the risk prevention and control mechanism for maritime energy corridors, the following steps should be taken: Given the terrorism and security risks confronting maritime energy corridors, it is imperative to establish a multilateral security cooperation framework among the states along the route. Additionally, it is essential to implement a risk prevention mechanism for the countries situated along maritime energy corridors (Guo et al., 2019). Hence, the security governance of maritime energy corridors necessitates the anticipation of political, security, and other risks related to maritime energy corridor security. This involves implementing a risk prevention and early warning system for maritime energy corridors to minimize the likelihood of maritime disputes arising from insufficient communication. Furthermore, there is a need to enhance the risk identification mechanism for maritime energy corridors to precisely pinpoint specific security risks within the corridors. Improvements should also be made to the risk management system for maritime energy corridors. Finally, the risk information exchange process can be enhanced through risk communication and dialogues among navies along the route concerning risks associated with maritime energy corridors.

Secondly, a robust international cooperation mechanism ought to be established for maritime energy corridors. Concerning cooperation in maritime energy transportation, it is crucial to bolster the alignment of interests among all stakeholders, enhance multilateral consultations, and establish an international communication platform to promote greater coordination of energy policies among states. Building upon this foundation, a set of pivotal laws and regulations should be developed to facilitate international energy cooperation and ensure timely and rational policy adjustments. The strategic objective of collectively upholding energy security guides the selection of pathways for maritime energy pipeline interconnectivity. Firstly, to avert cutthroat competition, cooperation is vital for ensuring the security of maritime oil and gas pipelines. In the realm of international energy collaboration, China has played a constructive role by bolstering energy policy dialogues, providing prompt cooperation updates, aligning the positions of all parties, and enhancing joint action plans. Secondly, it is essential to effectively steer public opinion. Enhancements will be made to the mechanism enabling the international community to monitor and assess the formulation and implementation of China's pertinent codes of conduct, thereby forestalling adverse effects stemming from the introduction and enforcement of unreasonable regulations.

Therefore, it is evident that ensuring the safety of China's maritime energy routes is a fundamental approach to enhancing the security cooperation mechanism of maritime routes. The existing maritime energy channel cooperation mechanisms can be categorized into three primary types: Firstly, global cooperation entails establishing a legally sound, formulable, operational, and enforceable international cooperation model guided by the UN. Secondly, bilateral cooperation involves two countries signing mutual cooperation agreements based on trust and shared

benefits to collectively manage energy security transport. Thirdly, regional cooperation involves energy producers, transit countries, and energy consumers collaborating to develop and transport energy, aiming for mutually beneficial outcomes in the regional coordination of maritime energy (Hao et al., 2020).

Thirdly, the dispute settlement mechanism for maritime energy corridors should be enhanced. In international law, the dispute settlement mechanism primarily addresses investment disputes through the international investment settlement center, resolves trade disputes through the WTO, and manages investment arbitration clauses through the ECT. One issue is that these dispute settlement mechanisms primarily consist of fundamental provisions and lack specialized systems for resolving disputes within the energy sector. Another concern is that disputes may remain unresolved if certain coastal countries do not engage in cooperation with relevant international organizations or are not members of the WTO. Therefore, researching energy cooperation methods suitable for the international sphere is crucial for ensuring long-term effective energy cooperation and enhancing the legal frameworks for international energy corridors. In essence, enhancing the dispute settlement mechanism for maritime energy corridors can effectively resolve disputes related to corridor security. To begin with, misunderstandings among coastal countries along the route should be eradicated through initiatives like the BRI, news dissemination, diplomacy, and other methods. Moreover, there should be an intensified effort to shape public opinion regarding the legal mechanisms for international cooperation in energy security. Furthermore, the promotion of international arbitration, jurisdiction, and other legal methods is essential for fairly resolving disputes and ensuring the acceptability of dispute settlement outcomes. Additionally, the political sensitivity and specificity of energy resources suggest that non-binding solutions for energy disputes may be preferable to legal means. Consequently, a dedicated maritime energy dispute resolution mechanism could be established within the management structures of transnational energy corridors. This specialized mechanism would focus on managing disputes and conflicts related to maritime energy transport corridors, thereby enhancing the effectiveness of the maritime energy corridor dispute settlement process.

Author contributions

ML: Formal analysis, Conceptualization, Writing – review & editing, Funding acquisition, Writing – original draft. LL: Supervision, Project administration, Writing – review & editing.

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Investigation, Methodology. JL: Visualization, Investigation, Writing – review & editing. CM: Visualization, Data curation, Resources, Writing – review & editing, Investigation. HZ: Writing – review & editing, Resources, Visualization, Data curation, Investigation.

Funding

The author(s) declare financial support was received for the research and/or publication of this article. This work was supported by the “Research on the Legal Guarantee of the Procreation Support System in Shandong Province” of Shandong Province Social Science Planning and Research Special Project (Grant No. 23CFNJ25), and “Research on anti-terrorism legislation and Human Rights Protection” of Youth Innovation Team Plan approved by Shandong Provincial Education Department in 2022 (Grant No. 2022RW016).

Conflict of interest

The 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.

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