

# Strengthening the Maritime Security Legal Framework through the Implementation of the ISPS Code for the Protection of Ships and Port Facilities at Bitung Port

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**Abstract:** *This study aims to analyze the legal regulations on maritime security in the implementation of the ISPS Code and formulate ideal legal reforms to strengthen the protection of ships and port facilities at Bitung Port. The research method used is normative juridical with a statutory and conceptual approach. The results of the study indicate that the regulations in Law Number 17 of 2008 concerning Shipping have not comprehensively adopted the ISPS Code standards, resulting in a gap between norms and implementation in the field, including weaknesses in aspects of supervision, resources, and institutional coordination. Therefore, legal reconstruction and reform are needed through regulatory harmonization, institutional strengthening, and technology integration to realize an effective maritime security system in accordance with international standards.*

**Keywords:** *Maritime Security; ISPS Code; Legal Updates; Ports*

## Introduction

Indonesia's geostrategic condition as an archipelagic country located at the crossroads of world trade routes makes its territorial waters very vital in the global logistics system (Sunaryo 2019). Indonesia is located on a major shipping route connecting the Indian Ocean and the Pacific Ocean, thus having a strategic role in the mobility of goods, energy, and people across countries (Ali 2022). The existence of the Indonesian Archipelagic Sea Lanes (ALKI) as recognized in the United Nations Convention on the Law of the Sea 1982, especially Article 53, grants the right of passage for foreign vessels through Indonesian waters, which, on the one hand, is economically beneficial, but on the other hand, creates vulnerability to security threats (Hutagalung 2017). These threats are not only in the form of conventional crimes such as piracy, but also non-traditional threats such as maritime terrorism, narcotics smuggling, human trafficking, and sabotage of national vital objects (Hermawan 2022). Therefore, strengthening maritime security, particularly at strategic hubs such as ports, is an urgent need as part of protecting national sovereignty, as affirmed in the

Preamble to the 1945 Constitution of the Republic of Indonesia and the principles of an archipelagic state (Hasim 2023).

In this regard, Bitung Port plays a strategic role as the main gateway to Eastern Indonesia, integrated with Asia-Pacific trade routes. This port was developed as part of the maritime toll road program and international hub, resulting in a continuous increase in ship traffic, both domestic and international. Within this context, global shipping communication networks and international maritime information-sharing systems support security management by enabling real-time exchange of vessel and cargo data, which strengthens early detection of maritime risks. This integrated communication also enhances coordination among port authorities and international partners, thereby improving situational awareness and security response in managing the increasing flow of maritime traffic.

Increased activity directly impacts security risks to both ships and port facilities (Sulistiana 2018). Normatively, ports have a vital function, as stipulated in Article 1, number 16, and Article 81 of Law Number 17 of 2008 concerning Shipping, which stipulates that a port is a place for government and business activities used for ships to dock, embark passengers, and load and unload goods (Yuliana 2023). However, this strategic function has not been fully balanced by a security system that adapts to the dynamics of global threats, creating significant potential vulnerabilities to the security of ships and port facilities (Annas 2017).

Internationally, maritime security standards are regulated through the ISPS Code, which is part of the amendments to the 1974 SOLAS Convention, specifically Chapter XI-2, which regulates specific measures to enhance maritime security. The ISPS Code was created in response to increasing global threats, particularly following incidents of international terrorism, and aims to establish an international framework for detecting security threats and taking preventative measures against incidents that could endanger ships and port facilities (Pratama 2025). The ISPS Code stipulates the obligation of member states to establish a Ship Security Plan, a Port Facility Security Plan, and appoint security officials such as a Ship Security Officer and a Port Facility Security Officer (Hendra 2022). However, there is a gap between these international standards and their implementation in developing countries, including Indonesia, which still face structural, technical, and institutional obstacles.

At the national level, maritime security regulations have been accommodated in various laws and regulations, particularly Law Number 17 of 2008 concerning Shipping, which, in Articles 207 to 213, regulates aspects of shipping safety and security, including the obligation to comply with international standards. Furthermore, there are also derivative regulations, such as Government Regulation Number 61 of 2009 concerning Ports and various regulations of the Minister of Transportation that regulate the technical implementation of port security (Saraswati 2020). However, institutionally, there is fragmentation of authority between the Harbormaster and Port Authority Office (KSOP), the Indonesian Navy, the Police, and other agencies, which has the potential to lead to overlapping authority and weak coordination (Oktavian 2021). The condition signifies that normatively, regulations exist, but systematically, an integrated and effective legal

framework has not yet been formed to ensure maritime security based on international standards.

The problematic implementation of the ISPS Code at Bitung Port demonstrates a gap between legal norms (*das sollen*) and field practice (*das sein*). Limited human resources competent in maritime security, the lack of technological infrastructure such as an integrated surveillance system, and weak access control to restricted port areas are key factors hampering the effective implementation of the ISPS Code. Furthermore, suboptimal coordination between institutions exacerbates security conditions, opening up opportunities for violations of international standards. From a legal perspective, this situation demonstrates the weakness of oversight and law enforcement functions, as mandated by Article 276 of Law Number 17 of 2008 concerning Shipping, which regulates sanctions for shipping violations but does not specifically address violations of the ISPS Code security standards.

There are normative weaknesses and legal gaps in maritime security regulations in Indonesia, particularly those related to the implementation of the ISPS Code. To date, there is no regulation that comprehensively and explicitly incorporates the ISPS Code into the national legal system, resulting in unclear norms and weak legal certainty. Furthermore, regulations regarding sanctions for port security violations are still general and do not accommodate the complexity of modern security threats, including the use of technology in security systems (Kundori. 2022). Disharmony between national law and international obligations is also a serious issue that has the potential to undermine Indonesia's credibility in the international shipping system. Therefore, legal reform is needed through regulatory reformulation based on a modern security risk approach, harmonization with international ISPS Code standards, institutional strengthening, and technology integration into port security surveillance systems. This reform is not only important in the context of protecting ships and port facilities, but also has strategic implications for state sovereignty, national security, and Indonesia's position in the global maritime arena.

## Methodology

The research method employed in this study is the normative juridical method, namely a legal research method that focuses on the study of legal norms contained in laws and regulations, court decisions, and doctrines or opinions of legal experts. The approaches used include a statute approach and a conceptual approach. The statutory approach is carried out by examining various regulations related to maritime and port security, including Law Number 17 of 2008 concerning Shipping, implementing regulations in the port sector, and international legal instruments such as the United Nations Convention on the Law of the Sea 1982 and the ISPS Code, which are global standards in securing ships and port facilities. Meanwhile, the conceptual approach is carried out by examining relevant legal concepts, such as the concept of maritime security, state sovereignty, protection of national vital objects, and legal reform theories, in order to build comprehensive legal arguments in analyzing the problems studied. By combining these two approaches, this study aims to find normative gaps, regulatory disharmony, and formulate an ideal legal construction in strengthening the maritime security legal framework through the implementation of the ISPS Code at Bitung Port.

## Result and Discussion

### Analysis of Maritime Security Legal Arrangements in the Implementation of the ISPS Code in Indonesia

The legal regulation of maritime security in Indonesia is normatively rooted in Law Number 17 of 2008 concerning Shipping, which serves as the *lex generalis* in the shipping and port sector. This law explicitly regulates aspects of shipping safety and security in Articles 207 to 213, which emphasize that all shipping activities must meet safety and security requirements in accordance with national and international standards. Furthermore, Article 1, point 32, defines shipping safety and security as a state in which safety and security requirements relating to transportation in waters, ports, and the maritime environment are met (Alfi 2024). Normatively, this provision demonstrates recognition of the importance of international standards, but has not yet explicitly adopted technical instruments such as the ISPS Code into statutory norms, thus creating room for interpretation in its implementation. In implementing regulations, port and ship security arrangements are further elaborated through Government Regulation Number 61 of 2009 concerning Ports and various Ministerial Regulations governing the port security system, including the mandatory preparation of a Port Facility Security Plan and a Ship Security Plan. However, these regulations remain administrative and technical in nature, thus lacking strong regulatory force for law enforcement (Sajidin 2023). It is evident in the absence of specific sanctions for violations of ISPS Code-based security standards. Thus, within the hierarchy of laws and regulations, there is an imbalance between basic norms (laws) and operational norms (implementing regulations), which has implications for weak legal certainty.

The alignment of national law with international instruments can be examined through Indonesia's commitment to the 1974 SOLAS Convention and the 1982 United Nations Convention on the Law of the Sea. SOLAS, specifically Chapter XI-2, stipulates the obligation of member states to implement security measures for ships and port facilities, including the implementation of the ISPS Code as a technical instrument. Meanwhile, Article 94 of UNCLOS 1982 affirms the flag state's obligation to ensure the safety of ships, and Article 25 authorizes coastal states to take necessary measures to prevent security violations in their territorial waters (Puspitawati 2019). Although Indonesia has ratified both conventions, the process of transforming international norms into national law remains incomplete, leading to disharmony between international obligations and domestic implementation.

In principle, the ISPS Code emphasizes a risk-based approach to maritime security, which includes threat identification, vulnerability assessment, and the implementation of mitigation measures through instruments such as the Ship Security Assessment, Ship Security Plan, and Port Facility Security Plan. Furthermore, the ISPS Code also regulates the division of responsibilities between the state, ship operators, and port managers in maintaining security. These principles are essentially implicitly incorporated into national law, but have not been systematically internalized in the form of binding legal norms. As a

result, implementation in the field often amounts to an administrative formality without being accompanied by substantive effectiveness in preventing security threats (Andhi 2017).

From a normative perspective, the strength of national law lies in the existence of a basic framework that recognizes the importance of shipping safety and security and is open to international standards. However, its weakness lies in the lack of specific and comprehensive regulations regarding the implementation of the ISPS Code, including in terms of supervision, law enforcement, and sanctions (Utomo 2025). The provisions in Article 276 of Law Number 17 of 2008 concerning Shipping do regulate administrative and criminal sanctions in the shipping sector, but they do not explicitly address violations of international security standards. It indicates a normative gap that has the potential to weaken the effectiveness of the national maritime security system.

From an institutional perspective, port security arrangements involve various institutions, such as the Harbormaster and Port Authority Office (KSOP), the Indonesian Navy, the Indonesian National Police, and other relevant agencies. This division of authority is normatively regulated in various laws and regulations, but in practice, it often results in overlapping authority and weak coordination. The absence of a single institution with full authority in managing maritime security based on the ISPS Code leads to fragmented policies and inefficiencies in oversight. Therefore, institutional evaluation and restructuring based on the principles of integration and coordination are needed to create an effective, responsive, and internationally standardized port security system.

### **Problems of Implementing the ISPS Code in Protecting Ships and Port Facilities at Bitung Port**

The problematic implementation of the ISPS Code for protecting ships and port facilities at Bitung Port essentially demonstrates a clear gap between legal norms (*das sollen*) and field practice (*das sein*). Normatively, the provisions of Law Number 17 of 2008 concerning Shipping, specifically Articles 207–213, mandate compliance with shipping safety and security standards, including the application of international standards. However, empirically, implementation at Bitung Port still shows that many security procedures are carried out merely as administrative formalities to meet audit or certification requirements, without consistent and ongoing oversight. For example, inspections of incoming ships often serve as mere administrative documents without in-depth field verification of potential security threats.

The effective undertaking of the Ship Security Plan and Port Facility Security Plan, the primary instruments under the ISPS Code, also faces various substantive challenges. Empirically, not all ship operators or port facility managers at Bitung Port regularly update these security documents to reflect evolving threat dynamics. In some cases, security plans remain static documents without operational implementation, such as inadequate access control procedures or infrequent security simulations. The situation implies that the implementation of the ISPS Code is not fully based on a risk-based approach, but rather remains compliance-oriented, with no real effectiveness in preventing security breaches.

From a human resources perspective, a prominent empirical problem is the limited number and competence of port security personnel with certification and specialized

training in the ISPS Code. Many security officers in the field lack an adequate understanding of procedures for handling maritime security threats, including risk identification and emergency response. Moreover, high personnel turnover and a lack of ongoing training led to low consistency in the application of security standards. This situation is exacerbated by limitations in security technology and infrastructure, such as the suboptimal use of integrated CCTV, electronic access control systems, and a lack of detection equipment for dangerous goods, which directly impact the effectiveness of port surveillance.

Another significant problem is weak coordination between institutions in oversight and law enforcement. At Bitung Port, various institutions have authority over security aspects, such as the KSOP (Office of Operational Control), the Indonesian Navy, the Indonesian National Police, Customs and Excise, and the port authority. However, empirically, coordination between these institutions is often suboptimal, both in terms of information exchange and in the implementation of integrated security operations. For example, there are overlapping inspections of ships and cargo, while gaps in supervision in certain areas are not optimally monitored. This indicates the absence of an integrated command and control system in port security management.

This situation has implications for the potential for violations of international security standards stipulated in the ISPS Code. Empirically, unauthorized access to restricted port areas, weak inspections of baggage, and inconsistent implementation of security levels in accordance with regulations are still observed. These violations not only pose a potential threat to national security but also impact the international reputation of Indonesian ports, including the possibility of stricter port state control measures by other countries on vessels originating from Indonesian ports. From an international legal perspective, this situation can be considered a form of non-compliance with obligations under the 1974 SOLAS Convention.

The legal implications of these various issues indicate that the weak implementation of the ISPS Code at Bitung Port is not only a technical issue but also reflects the weakness of the legal system in ensuring the effectiveness of norms. Unclear sanctions for violations of security standards and weak oversight contribute to low levels of stakeholder compliance. This demonstrates that the law has not yet functioned as a tool of social engineering in creating an effective maritime security system. Therefore, strengthening not only the regulatory aspect but also the implementation, oversight, and enforcement of the law in an integrated manner is necessary to ensure optimal and sustainable implementation of the ISPS Code standards.

### **Legal Reconstruction and Reform in Strengthening the ISPS Code-Based Maritime Security Framework**

Legal reconstruction and reform to strengthen the maritime security framework based on the ISPS Code must begin with an analysis of the gaps in norms and regulatory disharmony within national law. Although Law Number 17 of 2008 concerning Shipping regulates aspects of shipping safety and security, there is no explicit regulation comprehensively adopting the ISPS Code as a directly binding norm. The provisions in Articles 207–213 are still general in nature and do not detail risk-based security standards,

security audit mechanisms, and the responsibilities of each actor in the port security system. Furthermore, the disharmony between statutory, government, and ministerial regulations has led to inconsistencies in implementation. Therefore, concrete action is needed to revise the Shipping Law by incorporating specific norms regarding maritime security based on the ISPS Code, including detailed provisions on obligations, operational standards, and sanctions for violations.

The ideal concept for strengthening maritime security regulations should be based on a risk-based approach, as stipulated in the ISPS Code. This approach emphasizes threat identification, vulnerability assessment, and sustainable risk management. In this context, concrete action is needed in the form of a legal obligation for every port and ship operator to conduct periodic security risk assessments, the results of which must be reported to the relevant authorities. Furthermore, national standards for determining security levels should be established, dynamic, and based on maritime intelligence. Regulations should also mandate regular security simulations and independent audits of the implementation of Ship Security Plans and Port Facility Security Plans, ensuring they are not merely administrative but also substantive.

Harmonizing national law with international standards is a strategic step to ensure Indonesia's compliance with global obligations, particularly within the framework of the 1974 SOLAS Convention and 1982 UNCLOS. Concrete action can include explicitly adopting the ISPS Code into national legislation through the creation of government regulations or even specific laws on maritime security. Furthermore, a systematic legal transplant mechanism is needed, where international norms are translated into the national legal context without losing their original substance. The government also needs to establish internationally recognized national certification standards for ports that have met the ISPS Code requirements, thereby increasing global confidence in Indonesia's port security system.

From an institutional perspective, strengthening the maritime security system requires integration between institutions, which currently remain fragmented. A concrete action that can be taken is the establishment of a national maritime security coordination body with cross-sectoral authority for port supervision and law enforcement. This body must be able to integrate the functions currently carried out by the KSOP, the Indonesian Navy, the National Police, and other agencies to prevent overlapping authority. Furthermore, it is necessary to develop a technology-based integrated command and control system that enables real-time data exchange between institutions. In the context of Bitung Port, this integration can be achieved through the establishment of a port security control center connected to all stakeholders.

Strengthening the port security surveillance system must also be supported by technological integration as part of legal reform. Concrete actions that can be taken include mandating the use of integrated surveillance systems such as artificial intelligence-based CCTV, automatic identification systems (AIS), and electronic access control systems integrated with national databases. Regulations must establish minimum technology standards for every international port, including Bitung Port. Furthermore, a digital

reporting system should be established to enable early detection of potential security threats. This technology integration not only increases the effectiveness of supervision but also strengthens accountability in law enforcement.

From a communication and governance perspective, strengthening integrated communication infrastructure in maritime security requires the development of a real-time, interoperable digital information system that connects all relevant port security stakeholders, including customs, port authorities, maritime surveillance units, and law enforcement agencies. Such an integrated system should enable continuous data exchange through a centralized digital platform that supports real-time reporting of vessel movements, cargo tracking, and potential security threats. This reduces information fragmentation and ensures faster coordination in detecting and responding to maritime risks.

In addition, the effectiveness of maritime surveillance can be enhanced through the integration of communication technologies such as automated identification systems (AIS), digital radio communication networks, and centralized maritime command centers that allow synchronized decision-making. Strengthening cybersecurity protocols and standardizing communication procedures across agencies are also essential to ensure data reliability and prevent unauthorized interference. Through these measures, integrated communication infrastructure functions not only as a technical tool but also as a coordination mechanism that improves responsiveness, transparency, and accuracy in maritime threat detection and port security operations.

As a final formulation, the ideal legal reform model must be comprehensive, integrative, and adaptive to evolving maritime security threats. Concrete actions that can be formulated include the creation of a specific law on maritime security based on the ISPS Code, strengthening administrative and criminal sanctions for violations of security standards, and increasing human resource capacity through ongoing education and training. Furthermore, a regular evaluation mechanism must be implemented to assess the effectiveness of regulations and their implementation in the field. Thus, legal reform must not stop at the normative level but must also address emerging empirical issues, thus creating an effective, sustainable maritime security system that complies with international standards.

## **Conclusion**

The conclusion of this study indicates that maritime security legal regulations in Indonesia, in implementing the ISPS Code, have not been fully and comprehensively integrated into the national legal system. Although Law Number 17 of 2008 concerning Shipping accommodates aspects of shipping safety and security, the regulations are still general in nature and do not explicitly internalize the principles of the ISPS Code, particularly those related to a risk-based approach, integrated supervision, and effective law enforcement mechanisms. This situation creates a gap between legal norms and implementation practices in the field, as seen at Bitung Port, where weaknesses in the implementation of the Ship Security Plan and Port Facility Security Plan remain, limited

human resources and technology, and weak inter-agency coordination are still present. Furthermore, a lack of norms and regulatory disharmony impacts the low effectiveness of the port security system and potentially leads to violations of international standards stipulated in the 1974 SOLAS Convention.

Based on these findings, comprehensive legal reform is recommended through the revision or creation of specific regulations that explicitly incorporate the ISPS Code into the national legal system, including detailed provisions regarding security standards, oversight mechanisms, and sanctions for violations. Furthermore, institutional strengthening is necessary through the establishment of an integrated coordination system between authorized agencies in maritime security, as well as increasing human resource capacity through ongoing training and certification. The integration of technology into port surveillance systems is also a strategic step that must be regulated normatively to increase security effectiveness. Regarding its implementation at Bitung Port, concrete steps are needed in the form of developing an integrated, technology-based security system and strengthening the ongoing oversight function. Thus, the legal reforms implemented will not only fill the gap in norms but also create a maritime security system that is effective, adaptive, and aligned with international standards.

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