

# Juridical Analysis of Entry and Exit Points for Animal and Plant Quarantine Carrier Media

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## Abstract

**Purpose:** The purpose of this study was to determine the legal arrangements for the place of entry and release of animal and plant quarantine carrier media, and the factors, constraints, solutions, and implementation of the place of entry and release of animal and plant quarantine carrier media.

**Methodology:** The research method of this thesis is normative juridical (legal research) through a literature study with an empirical juridical approach (sociological juridical) through field studies aimed at empirically obtaining legal knowledge.

**Results:** Quarantine entry and exit regulations are based on Articles 86 and 87 of Law No. 21 of 2019. The Batam Quarantine Center shows strong biosecurity efforts despite challenges in resources and coordination. Solutions include technology use, staff training, and improved collaboration.

**Conclusions:** The enforcement of quarantine entry and exit points in Batam reflects Indonesia's strong commitment to biological security. Despite logistical and human resource challenges, legal compliance is improved through regulatory reforms, stakeholder collaboration, and continuous system evaluations. These measures collectively strengthen the country's quarantine system and environmental protection.

**Limitation:** This study is geographically limited to Batam City and relies primarily on qualitative analysis, which may not reflect broader implementation challenges across other regions in Indonesia.

**Contribution:** This study contributes to the development of quarantine law enforcement strategies and provides practical insights for policymakers and quarantine agencies to strengthen institutional coordination, improve resource allocation, and enhance the effectiveness of biosecurity at entry-exit points.

**Keywords:** *Juridical Analysis, Place of Entry, Quarantine Media.*

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## 1. Introduction

One of the threats that can damage biological natural resources is the attack of pests and diseases of both animal and plant origin on agricultural commodities and agricultural products. Damage due to these attacks is detrimental to the nation and state because it will reduce the production of animal and plant cultivation, both quantity and quality, or can result in the destruction of certain types of animals and plants of economic value (Hanudin, Budiarto, & Marwoto, 2017). Therefore, pre-emptive efforts need to be made optimally, considering that the treatment requires considerable cost, time, and energy. One of the efforts to prevent the entry of diseases into animals and plants needs to be carried out supervision and inspection optimally by quarantine officers in the field. Where the requirements or

procedures for the entry or release of animals or plants from abroad or other areas into the country must meet predetermined requirements(Chand, Singh, Vishwakarma, & Singh, 2017).

In general, there are two requirements.

- 1) Administrative requirements, namely all documents or correspondence required to enter animals or plants, for example, Import Approval Letter for the Destination Area, Import License, Certificate of Origin and Health or Sanitation Certificate, Halal Certificate and so on; and
- 2) Technical requirements include negative laboratory test results for animal or plant diseases, the origin of the animals and plants entered, and the processing method for animal products (Agustina, 2023).

Problems that can arise from not fulfilling the requirements or procedures mentioned above will lead to the introduction of dangerous diseases in animals and plants, destruction of the potential availability of animals and plants, and outbreaks in Indonesia. Even worse, if the disease is zoonotic, it disturbs the community (Adnyana, Utomo, Eljatin, & Sudaryati, 2023; Saba Villarroel et al., 2023). Therefore, to prevent the entry of diseases from abroad such as mad cow disease (BSE) into Indonesia, mad cow disease (BSE) can be transmitted through the meat of infected cattle to prevent the entry of diseases abroad(Kumagai, Daikai, & Onodera, 2019). This needs to be anticipated considering that the demand for beef in Indonesia is increasing, but the health and safety of meat products is not guaranteed to be free from the disease, considering that there is no integrated cooperation between quarantine officers both at the place of expenditure and at the place of entry, both officially and unofficially (illegal), where the impact of the entry of mad cow disease can cause death in humans who consume beef(Kusumaningrum, Darjanto, Nuralina, & Mulatsih, 2024).

Generally, the entry of agricultural products is legal, but there are some illegal entries. Illegal entry is generally carried out by importers/owners whose types of agricultural products are prohibited from entering or importing by the government and do not meet the requirements, namely, not having health documents or certificates from the country of origin(Owolabi & Olayinka, 2021). Therefore, the government, as the protector of the community, issues regulations, one of which is Law Number 21 of 2019 concerning the Quarantine of Animals, Fish and Plants. Article 1 number 1 states that: "Quarantine of Animals, Fish and Plants, hereinafter referred to as quarantine, is a system for preventing the entry, exit, and spread of quarantine animal pests and diseases; quarantine fish pests and diseases; quarantine plant disruptors; supervision and/or control of food safety and food quality, feed safety and feed quality, Genetically Engineered products, Genetic Resources, Biological Agents, Invasive Alien Species, Wild Plants and Animals, and Rare Plants and Animals that are introduced into, spread from one area to another area, and/or removed from the territory of the Unitary State of the Republic of Indonesia "(Husain, Suprpto, & Akbar, 2025).

Then, in Article 5 of Law Number 21 of 2019 concerning Quarantine of Animals, Fish and Plants, it is explicitly stated that

- (1) The implementation of quarantine is based on an appropriate level of state protection against HPHK, HPIK, and OPTK.
- (2) An appropriate level of protection, as mentioned in paragraph (1), should be implemented by conducting risk analysis.
- (3) Provisions regarding the determination of the appropriate level of protection and risk analysis, as referred to in paragraphs (1) and (2), shall be regulated by or based on Government Regulation.

Furthermore, the Government of Indonesia determines the entry and exit points of quarantine animal disease carriers and quarantine plant pest organisms to maintain public safety and health and prevent the entry of diseases and pests that can damage agriculture and the environment(Dubey et al., 2021). In addition, these entry and exit points are needed to control the spread of quarantine animal diseases and quarantine plant pest organisms that can endanger food safety, public health, crop damage, and the environment(Alawneh et al., 2025). It also aims to prevent the entry of animal and plant species that are not in accordance with local environmental conditions and can disrupt natural ecosystems (Agustina, 2023). For this reason, the government issued Regulation of the Minister of Agriculture of the Republic

of Indonesia Number 16 of 2022 concerning the Fifth Amendment to Regulation of the Minister of Agriculture Number 94/Permentan/OT.140/12/2011 concerning Places of Entry and Exit of Quarantine Animal Disease Carriers and Quarantine Plant Disturbing Organisms. The issue of the regulation is to consider the risk of entry and spread, the risk of escape of media carriers of quarantine animal diseases and quarantine plant disruptive organisms, the preservation of animal and plant biological resources, and the smoothness and development of the trade transportation system and the national economy. It is necessary to change the regulation of the place of entry and release of media carriers of quarantine animal diseases and quarantine plant disruptive organisms.

Batam City is one of the places indicated as a Place of Entry and Expenditure of Quarantine Animal Disease Carriers and Quarantine Plant Disturbing Organisms, but only a few ports are officially designated as the place in question in the field, and there are still several ports that are not officially listed in the Regulation of the Minister of Agriculture of the Republic of Indonesia Number 16 of 2022; however, it is still used as a place of entry and release of Quarantine Animal Disease Carriers and Quarantine Plant Disturbing Organisms such as Pak Amat Port in Sekupang, Tanjung Riau Port, Punggur Inner Port (old village), Makobar Port, Sagulung Port, Bareleng Bridge Port, and several other ports (Beekman & Rüdelsheim, 2020).

Based on the above background, the author is interested in researching and writing the results in a scientific journal titled "Juridical Analysis of Places of Entry and Exit of Animal and Plant Quarantine Carrier Media." Based on the background of the problems described above, the problems discussed are as follows.

- 1) What are the legal arrangements for the entry and exit of animal and plant quarantine carriers?
- 2) How are the implementation, obstacle factors, and efforts of the place of entry and release of animal and plant quarantine carrier media?

## **2. Research Method**

This type of research uses normative and empirical juridical approaches. The normative juridical approach is carried out theoretically by studying legislation, theories, and concepts related to the problems that the author will examine (Christiani, 2016; Noor, 2023). An empirical approach is a legal research method that serves to see the law in real terms and examines how it works in the community (Fajar & Achmad, 2010). This approach refers to legal research methods, legal experts, and the literature. Normative legal research is legal research focuses on regulations on written rules or legislation (law in books), or research based on rules or norms that apply to society (Armia, 2022).

The juridical sociological approach identifies and conceptualizes law as a real and functional social institution in a real-life system. The juridical sociological approach emphasizes research that aims to obtain legal knowledge empirically by going directly to the object (Suriasumantri, 2007). The data analysis was then presented using qualitative analysis (Fadlan, 2020). Likewise, data analysis is also carried out qualitatively by conducting descriptive analysis, namely describing the description of the data obtained and connecting one to another to obtain a general conclusion (Harefa, Idham, & Erniyanti, 2023). In this case, the author provided interpretations and explanations of the data obtained. The research results are then presented in the form of descriptive explanations (Prasetiasari et al., 2023).

## **3. Results and Discussion**

### ***3.1 Legal Arrangements for Places of Entry and Expenditure of Animal and Plant Quarantine Carrier Media***

Legal arrangements for the entry and exit of animal and plant quarantine carrier media in Indonesia are based on Law No. 21/2019 on Animal, Fish and Plant Quarantine. Broadly speaking, the regulation explains the quarantine process and mechanism to ensure that every animal, fish, and plant entering or leaving Indonesian territory is free from potentially harmful pests and diseases (HS Tisnanta & Orima Melati Davey, 2021). Articles 33 (1) and 34 (1) of Law Number 21 of 2019 concerning the Quarantine of Animals, Fish, and Plants states that every person who enters and releases Carrier Media into the territory of the Unitary State of the Republic of Indonesia must complete a health certificate from the

country of origin for animals, animal products, fish, fish products, plants, and/or plant products, and is carried out through the Place of Entry established by the Central Government. The carrier media is reported and submitted to the quarantine officer at the Port of Entry established by the Central Government for the purposes of quarantine measures and supervision and/or control.

Furthermore, Article 35, paragraph (1) of Law Number 21 of 2019 concerning the Quarantine of Animals, Fish, and Plants also states that every person who enters and/or removes Carrier Media from an area to another area within the territory of the Unitary State of the Republic of Indonesia must complete a health certificate from the Place of Expulsion established by the Central Government for Animals, Animal Products, Fish, Fish Products, Plants, and/or Plant Products. Enter and/or exit the Carrier Media through the Port of Entry and Port of Exit established by the Central Government. We report and submit the Carrier Media to the Quarantine Officer at the Point of Entry and Point of Expenditure established by the Central Government for quarantine measures and supervision and/or control (Putri, Respationo, Erniyanti, & Parameshwara, 2024).

Regarding the legal regulation of the place of entry and release of animal and plant quarantine carrier media based on the law, quarantine is defined as a technical and administrative effort to prevent the entry and development of pests and diseases and their spread. Carrier Media is defined as any item that can transmit pests and diseases, including animals, plants, and their derivative products. Meanwhile, the places of entry and exit mentioned in Article 1 point 26 of Law Number 21 of 2019 concerning the Quarantine of Animals, Fish and Plants are seaports, river ports, ferry ports, land ports, airports, post offices, border posts with other countries, and other places determined by the Central Government.

Furthermore, Article 1 point 39 of Government Regulation Number 29 of 2023 concerning Implementation Regulations of Law Number 21 of 2019 concerning Quarantine of Animals, Fish, and Plants states that Other Places Outside Quarantine Installations (hereinafter referred to as Other Places) are facilities other than quarantine installations in the form of buildings or rooms along with equipment, land, and other supporting facilities needed as a place to carry out quarantine, supervision and/or control, and traceability actions. The places of entry and release of animal, fish, and plant quarantine carrier media are determined by the Minister responsible for quarantine affairs. The place must be equipped with adequate quarantine facilities and equipment.

All carrier media entering or leaving Indonesia must be inspected and quarantined at the place of entry and exit. The Minister may designate or revoke entry and exit points, and designate special entry points for certain carrier media. The designation of entry and exit points must consider the availability of facilities and equipment as well as adequate human resources. For this reason, the Government issued Regulation of the Minister of Agriculture of the Republic of Indonesia Number 16 of 2022 concerning the Fifth Amendment to Regulation of the Minister of Agriculture Number 94/Permentan/OT.140/12/2011 concerning Places of Entry and Expulsion of Carrier Media of Quarantine Animal Diseases and Quarantine Plant Disturbing Organisms. The issuance of the regulation is intended to consider the risk of entry and spread, the risk of escape of media carriers of quarantine animal diseases and quarantine plant disruptive organisms, the preservation of animal and plant biological resources, as well as the smoothness and development of the trade transportation system and the national economy, it is necessary to change the regulation of the place of entry and place of release of media carriers of quarantine animal diseases and quarantine plant disruptive organisms (Mawawrdi, I, 2016).

Article 2A of the Regulation of the Minister of Agriculture of the Republic of Indonesia Number 16 of 2022 on the Fifth Amendment to the Regulation of the Minister of Agriculture Number 94/Permentan/OT.140/12/2011 on Places of Entry and Expenditure of Carriers of Quarantine Animal Diseases and Quarantine Plant Disturbing Organisms states that the designation of Places of Entry and Expenditure in the form of seaports, river ports, or ferry ports, as referred to in Article 1, includes terminals for own use or special terminals that are part of seaports, river ports, or ferry ports. Places of Entry and Expenditure of Carriers of Quarantine Animal Diseases and Quarantine Plant Disturbing Organisms designated by the Central Government for Batam City based on the Regulation of the

Minister of Agriculture of the Republic of Indonesia Number 16 of 2022 concerning the Fifth Amendment to Regulation of the Minister of Agriculture Number 94/Permentan/OT.140/12/2011 concerning Places of Entry and Expenditure of Carriers of Quarantine Animal Diseases and Quarantine Plant Disturbing Organisms are shown in the following table:

No.	Port Name	Location	UPT	Designation
1	Batam/ Batu Ampar	Batam	BKP Class I Batam	Entry, Exit and Inter-area
2	Sekupang	Batam	BKP Class I Batam	Entry, Exit and Inter-area
3	Batam Center	Batam	BKP Class I Batam	Inter Area
4	Kabil	Batam	BKP Class I Batam	Entry, Exit and Inter-area
5	Telaga Punggur	Batam	BKP Class I Batam	Inter Area
6	Harbourbay	Batam	BKP Class I Batam	Income and Expenses
7	Waterfront / Teluk Senimba	Batam	BKP Class I Batam	Income and Expenses
8	Nongsa	Batam	BKP Class I Batam	Income and Expenses

Attachment to Regulation of the Minister of Agriculture of the Republic of Indonesia Number 16 of 2022

To ensure the obligation to use the Places of Entry and Expulsion of Carrier Media of Quarantine Animal Diseases and Quarantine Plant Disturbing Organisms designated by the Central Government, the criminal provisions are regulated in Article 86 of Law Number 21 of 2019 concerning Quarantine of Animals, Fish and Plants which states that "Every person who enters the Carrier Media by not completing a health certificate from the country of origin for Animals, Animal Products, Fish, Fish Products, Plants, and/or Plant Products as referred to in Article 33 paragraph (1) letter a. It does not report or submit the Carrier Media to the Quarantine Official as referred to in Article 33 paragraph (1) letter b. It does not report or submit the Carrier Media to the Quarantine Official. Entering the Carrier Media not through the Port of Entry stipulated by the Central Government, as referred to in Article 33 paragraph (1) letter b. Not reporting or not submitting the Carrier Media to the Quarantine Officer at the Port of Entry stipulated by the Central Government for the purpose of quarantine measures and supervision and/or control as referred to in Article 33 paragraph (1). Transmitting the Carrier Media without including a health certificate from the transit country as referred to in Article 33 paragraph (4) shall be punished with a maximum imprisonment of 10 (ten) years and a maximum fine of Rp10,000,000,000.00 (ten billion rupiah).

Furthermore, Article 87 of Law Number 21 of 2019 concerning Quarantine of Animals, Fish and Plants states that "Every person who: a. issues Carrier Media by not completing health certificates for Animals, Animal Products, Fish, Fish Products, Plants, and/or Plant Products as referred to in Article 34 paragraph (1) letter a. Issues Carrier Media not through the Place of Expenditure established by the Central Government, as referred to in Article 34, paragraph (1) and/or not reporting or not submitting the Carrier Media to the Quarantine Officer at the Place of Expulsion established by the Central Government for the purposes of quarantine measures and supervision and/or control, as referred to in Article 34 paragraph (1), letter c shall be punished with a maximum imprisonment of three (three) years and a maximum fine of Rp3,000,000,000.00 (three billion rupiah). Article 88 of Law Number 21 of 2019 concerning the Quarantine of Animals, Fish and Plants states that every person who enters or issues carrier media from one area to another within the territory of the Unitary State of the Republic of Indonesia does not complete a health certificate from the Place of Expenditure established by the Central Government for Animals, Animal Products, Fish, Fish Products, Plants, and Plant Products, as referred to in Article 35 paragraph (1). Entering and/or issuing through the Places of Entry and Places

of Expenditure established by the Central Government, as referred to in Article 35, paragraph (1). Not reporting or not submitting the Carrier Media to Quarantine Officials at the Places of Entry and Places of Expenditure established by the Central Government for the purposes of quarantine measures and supervision and/or control as referred to in Article 35, paragraph (1). It does not report or submit the Carrier Media to the Quarantine Officer at the Port of Entry and the Port of Expenditure determined by the Central Government for the purposes of quarantine measures and supervision and/or control, as referred to in Article 35 (1). Moreover, or transiting the Carrier Media does not include a transit certificate as referred to in Article 35, paragraph (4) shall be punished with a maximum imprisonment of two (two) years and a maximum fine of Rp2,000,000,000.00 (two billion rupiah).

Therefore, Law No. 21/2019 on Animal, Fish, and Plant Quarantine also regulates Supervision and Control. The central and local governments work together to carry out quarantine supervision and control at points of entry and exit. This involves various related agencies such as customs, immigration, and police. Furthermore, the Government has taken steps to protect and develop the animal, fish, and plant industries by improving the quality of quarantine and maintaining national biological security. This regulation emphasizes the protection and safety of Indonesia's national biology. Quarantine mechanisms ensure that animals, fish, and plants entering and leaving the Indonesian territory do not become vectors for the spread of pests and diseases that can damage local ecosystems and industries.

### ***3.2 Implementation, Obstacle Factors and Efforts to Use Animal and Plant Quarantine Carrier Media Entry and Exit Points***

Batam City, which is located on the border of the country and one of the main trading hubs in Indonesia, has a strategic position as a transit point for goods and animals. Due to its proximity to neighboring countries, such as Singapore and Malaysia, Batam is often the first choice for importers and exporters. This location presents complex dynamics, as various types of goods, including quarantine carriers, enter and exit with high frequency, requiring strict and efficient inspection. The high trade volume in Batam affects quarantine inspection operations and efficiency. Thousands of containers of goods, including agricultural, animal, and plant products, cross the Batam border every day. This requires authorities to ensure that inspections are conducted meticulously without compromising the speed of the process. Large trade volumes also indicate a higher potential risk for the spread of pests or diseases through undetected carrier media.

As part of the international community, Indonesia, particularly Batam, has several trade agreements with neighboring countries. These agreements often include the quarantine standards and procedures that all parties must comply with. Therefore, the Agricultural Quarantine Center in Batam must ensure that they comply with international standards while taking into account national interests and the protection of local ecosystems. When implementing policies related to the entry and exit points of animal and plant quarantine carriers, implementation in the field, especially at the Batam Agricultural Quarantine Center, is crucial. The Center needs to have clear SOPs for every aspect of inspection, such as physical, administrative, and further inspection. These SOPs ensure that each officer has consistent work guidelines for carrying out their duties, reducing the risk of errors or omissions, and improving operational efficiency.

Given the high volume of trade in Batam, the adoption of technology in the inspection process is very important. X-ray scanners, digital-based management information systems, and high-accuracy pest- or disease-detection tools are integral to quarantine operations. Through technology, the inspection process can be expedited without compromising quality and accuracy. As a trade entry and exit point, Batam involves many parties, from customs and port authorities to exporters and importers. Therefore, good coordination with these stakeholders is necessary to ensure that the implementation of the quarantine policy is smooth. This coordination also facilitates the exchange of information related to potential threats or problems that may arise.

Given the fast-changing dynamics of trade and evolving potential threats, the periodic evaluation of procedure implementation is important. The Class I Batam Agricultural Quarantine Center needs to conduct internal audits, collect feedback from field officers, and monitor global trends related to pests and diseases to make the necessary adjustments. One of the keys to its successful implementation is

public awareness and active participation. Therefore, the Agricultural Quarantine Center Class I Batam needs to conduct regular socialization with the public and businesses regarding regulations, procedures, and the importance of compliance in the quarantine process. Active involvement of the community facilitates the implementation process and minimizes potential conflicts.

With a systematic and integrated approach, the Agricultural Quarantine Center Class I Batam can properly implement the policy of quarantine carrier entry and release points, ensuring the biological security of the country while supporting the active economic dynamics in the area. The following section elaborates on the obstacles that may be faced by the Batam Agricultural Quarantine Center.

#### 1. Facilities and Equipment

##### a. Infrastructure Limitations

With a high volume of trade, existing facilities may not be adequate to handle the large number of goods coming in and out every day. These include temporary storage spaces, inspection rooms, and detention facilities for suspected goods.

##### b. Obsolete Equipment

The technology in the quarantine world is constantly evolving. Outdated equipment may no longer be efficient or accurate in detecting certain pests or diseases, thereby increasing the risk of violations or omissions.

##### c. Human Resources

1) **Lack of Officers:** Given the large volume of trade, there may be a shortage of quarantine officers available to conduct quick but in-depth inspections.

2) **Inadequate Training:** In Continuous training is essential in a dynamic world. If quarantine officers do not receive up-to-date training or training on new technologies and methods, this can lead to inspection deficiencies.

3) **Increased Workload:** High trade volumes can lead to increased workloads, potentially increasing fatigue and reducing officer effectiveness.

##### d. Community Understanding

1) **Lack of Awareness:** Communities may not be fully aware of the importance of quarantine and the potential risks that pests and diseases can pose. This can result in a lack of cooperation or even attempts to avoid inspection.

2) **Misinformation:** In the information age, misinformation can spread rapidly. Misinformation about quarantine procedures or their impact can hinder the quarantine process and create resistance from the public and other stakeholders.

The above constraints show that although the Batam Class I Agricultural Quarantine Center plays a critical role in maintaining Indonesia's biological security, a series of challenges must be faced. These challenges require attention and strategic solutions in order to be overcome effectively.

Let us take a closer look at the solutions proposed to overcome the constraints at the Batam Agricultural Quarantine Center.

#### 1. Facility Improvement

**Infrastructure Investment:** Increasing the capacity of storage rooms, examination rooms, and detention areas will help in handling large trade volumes. This can be achieved by expanding the physical areas or reorganizing the existing layouts to improve efficiency.

**Equipment Modernization:** Adopting the latest technology in inspection and detection will speed up the inspection process while improving accuracy. This may involve investing in tools, such as advanced X-ray scanners and molecular diagnostic equipment.

#### 2. HR Training

**Periodic training program:** Regular training sessions should be organized for quarantine officers to keep them updated with the latest inspection methods, technology, and other best practices.

**Cooperation with Institutions:** Collaborate with universities, research institutes, or international organizations to gain access to specialized training or the latest learning resources.

**Workload Management:** Review the allocation of duties and workload of officers to ensure work efficiency and employee welfare.

#### 3. Campaign and Education

- a. Creation of Educational Materials: Develop educational materials that are easily understood by the public regarding the importance of quarantine. Such materials can be in the form of brochures, videos, posters, or other digital content.
- b. Cooperation with Local Media: Use of local media to disseminate information on quarantine procedures and the importance of compliance. This can be achieved through radio broadcasts, local TV, and print media.
- c. Establishment of Communities or Forums: Creating a forum or community where stakeholders, such as importers, exporters, and the general public, can interact with quarantine officers. This will facilitate two-way communication and enhance the mutual understanding of needs and challenges.

By implementing these solutions, it is expected that the Class I Batam Agricultural Quarantine Center will improve the efficiency and effectiveness of inspection, while building good relationships with the public and other stakeholders, ensuring that the country's economic interests and biological security are well maintained (McKirby, Sharma, & Bayliss, 2014). In analyzing the implementation of animal and plant quarantine carrier entry and release points at the Batam Class I Agricultural Quarantine Center, we understand the importance of legal structure, substance, and culture in accordance with Friedman's legal system theory as well as how authority is defined and exercised in accordance with the theory of authority. The success of the Quarantine Center lies not only in the application of regulations and technology, but also in how it coordinates with other stakeholders, understands and complies with the limits of authority, and responds to social and cultural dynamics in society. Awareness of the interaction between law, authority, and society provides a more in-depth picture of the challenges and solutions to quarantine policy implementation.

Based on the above conclusions, it is recommended that the Batam Class I Agricultural Quarantine Center continue to improve coordination with relevant stakeholders to ensure the continuity and effectiveness of implementation. In addition, regular training and education for quarantine officers, as well as socialization to the public and businesses, should be prioritized to ensure a deep understanding of the regulations and the importance of quarantine (Husain, Mohi, & Paramata, 2021). Finally, periodic evaluation of the effectiveness of implementation and community response can assist in adjusting strategies and approaches, so that the Quarantine Center can be more responsive to changing community dynamics and needs (Milstein & Wetterhall, 1999).

#### **4. Conclusion**

Based on the discussion related to this problem, the following conclusions can be drawn:

1. Legal arrangements regarding the place of entry and release of animal and plant quarantine carrier media in Indonesia, namely, the government has established strict regulations and sanctions related to quarantine procedures to protect ecosystems and the economy in Articles 86 and 87 of Law Number 21 of 2019 concerning Quarantine of Animals, Fish and Plants, which regulate the prohibition of entering or removing animal and plant quarantine carrier media other than the place of entry and release determined by the Central Government. The presence of these sanctions ensures that regulations are strictly followed in accordance with the principles of positive law that emphasize the separation between legal observance and moral considerations.
2. The implementation of animal and plant quarantine entry and release points at the Batam Class I Agricultural Quarantine Center reflects serious efforts to maintain the integrity of the national biological security. However, there are obstacles, such as limited human resources, inadequate facilities, and challenges in inter-stakeholder coordination. However, by applying the latest technology, increasing human resource capacity through training, and improving coordination and communication with related parties, the Batam Quarantine Center found strategic solutions to improve the efficiency and effectiveness of its services in carrying out quarantine duties.

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