



Implementation of Port Acceptance Facilities: Study at Tanjung Priok Port

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Abstract: The Marine Environment Protection Committee (MEPC), the 74th Session held on May 13-17, 2019, has highlighted several agendas, such as air pollution and energy efficiency. The draft guide to Port State Control (PSC) on contingency measures to address non-compliant fuel oil provides more details on managing the fuel still on board after the final fuel oil non-availability report (FONAR). Tanjung Priok Port is the largest and most complete port in Indonesia and is expected to provide reception facilities to support its implementation. The reception facilities owned by Tanjung Priok Port consist of tugboats, barges, separator pumps, and storage tanks. Most of these facilities are considered sufficient to provide and serve the needs of ships, especially those that need the appropriate fuel oil to come to the port. However, there is a potential shortage of reception facility services. This study aims to determine the availability and adequacy of port reception facilities in Tanjung Priok to formulate strategies to overcome non-compliant oil implementation. Field studies and surveys of respondents were conducted for data collection. Gap analysis is used to compare perceptions and expectations of the performance of port revenue facilities. The survey instrument consists of legality, equipment, infrastructure, and human resources aspects.

Keywords: Unqualified Fuel Oil, Reception Facilities, Gap Analysis

INTRODUCTION

Pollution from ships in the world's oceans is a significant threat recognized as one of the most serious environmental problems today. The oceans are used as routes for trade, tourism, transport, and military worldwide. With the development of shipping fleets worldwide, waste from ships produced at sea has greatly impacted the marine environment. The issue of providing port reception facilities is the state's responsibility and is an important service for the operation of ships. The International Maritime Organization (IMO) has developed several tools to encourage and assist the Member States in minimizing pollution to

the marine environment and implementing adequate waste reception facilities at ports to house ship waste.

More importantly, MARPOL is one of the main Conventions focused on protecting the marine environment. The Convention outlines regulations to prevent and reduce pollution caused by oil, chemicals, and hazardous substances, as well as by waste, garbage, and emissions from ships (IMO, n.d.a). Indonesia has ratified the international convention on IMO (International Maritime Organization) products, namely MARPOL 73/78 Annex I and II, through Presidential Decree No.46 of 1986. Ratification and implementation of international agreements related to the protection, safety, and security of the marine environment are one of the best solutions to overcome marine pollution in the world and Indonesia.

The port is one of the important connectivity nodes, so efficiency and effectiveness, as well as the sustainability of the port business, are very important to pay attention to. The efficiency, energy, and sustainability of the port can be improved through implementing systematic and integrated port management with various port service users, as well as paying attention to environmental, economic, and social/cultural sustainability aspects. Disruption of port sustainability will result in considerable losses, not only for the company but also for the national economy and the entire community related to the supply chain of goods distributed through the port.

Currently, ports in Indonesia, especially the port of Tanjung Priok, are not only focused on export and import activities but also on other obstacles, namely the decline in the quality of port areas. Ports are not only needed to serve ships and goods but can also cope with the decrease in environmental quality. According to Talley, the volume of cargo handled by the port will also be followed by an increase in the negative impact on the environment. one of the negative impacts of environmental pollution in the port area is the disposal of B3 waste (Toxic and Hazardous Materials). The garbage generated by the ship during shipping should not be discharged directly into the sea to prevent and avoid seawater pollution. The waste is collected first at the port Reception Facility, and then the debris will become residue so that if disposed of, it does not cause environmental pollution.

Reception facilities are facilities to reduce, store, collect, transport, utilize, treat and store waste at the port that comes from port support activities. The types of waste served by the Reception Facility are waste liquid oil from the ship's engine room (sludge oil) and Oily Liquid Waste from Tanjung Priok Equipment (used oil or used oil). The basic law of ports that provide Acceptance Facilities is the Regulation of the Minister of Transportation Number PM 29 of 2014 concerning Prevention of Pollution of the Deep Sea Environment CHAPTER IV concerning the prevention of pollution from port activities (Ministry of Transportation, "Regulation of the Minister of Transportation number PM 29 of 2014 concerning Prevention of Maritime Environmental Pollution," 2014.) One of the ports that have reception facilities is Tanjung Priok port.

However, the use of reception facilities in Tanjung Priok is not optimal. Ships docked at Tanjung Priok port rarely dispose of their ship's waste during shipping to Tanjung Priok port. Since the cost of disposal of waste charged to the vessel is quite expensive, the application process for ship waste unloading services at Tanjung Pelabuhan priok must be submitted by the shipping company or representative ship agent no later than 2 days before the ship docks. That way, this study aims to determine the implementation of the Port Reception Facility at Tanjung Priok Port and determine what factors influence the performance of the Port Reception Facility at Tanjung Priok Port.

LITERATURE REVIEW

Indonesia is a maritime country with most of its territory in the form of the sea and consists of 17,508 islands (Jusna & Nepung, 2016). Means of sea transportation are very important to connect islands scattered throughout Indonesia. As a maritime country, Indonesia must have adequate infrastructure to support inter-island activities. One of the supporting activities between islands is the availability of a port sufficient to keep ships that can lean on and facilitate intermodal movement from land to sea and vice versa. The definition of a port, according to Law Number 17 of 2008 concerning Shipping, is a place consisting of land / and or water with certain boundaries as a place for government activities and business activities used as a place for ships to lean and loading and unloading goods in the form of terminals and ship berths equipped with shipping safety and security facilities and supporting port activities as well as intra and intermodal transportation.

In addition, Indonesia is also an archipelagic country with approximately 17,500 islands, of which 6,000 are uninhabited. The largest islands in Kalimantan are the provinces of Kalimantan, Sumatra, Papua, Sulawesi, and Java (where Jakarta is located). The nation gained independence from the Netherlands in 1945 and is the largest economy in Southeast Asia. As shown in Table 1.1, the total population of Indonesia in 2017 was around 264 million, with almost half of the country's population being in Java and Sumatra, where most economic activity occurs (Sandee 2016). Over the past two decades, Indonesia has transitioned from a low-income country in politics, finance, and financial crisis to a middle-income, democratic and stable government that is now a member of the Group of Twenty (G-20) countries (World Bank 2014). The country's main exports consist of manufactured goods, fuel, foodstuffs, agricultural raw materials, and metals and ores.

The port system in Indonesia is known to be inefficient mainly due to high logistics costs and a lack of infrastructure investment (Nathan Associates 2008; Dick 2008; Sandee 2016). Logistics costs are estimated at 27 percent of Indonesia's Gross Domestic Product (GDP) (Logistics Country 2013, p.18). However, better connectivity can only be improved by further investment in infrastructure to enable efficient distribution of goods to markets within Indonesia and abroad and reduce regulatory barriers. The public sector is estimated to be able to fund only one-third of its infrastructure needs, while foreign investment in ports is capped at 49 percent (Ray and Ing 2016).

If the infrastructure deficit remains, it will be difficult for Indonesian ports to become globally competitive, which could impact its transition from middle-income to higher-income countries. Logistics costs in Indonesia decreased slightly between 2004 and 2011 from 27.6 percent to 24 percent of GDP, with transportation costs accounting for 50 percent of overall logistics costs. The lack of competition due to cabotage rules in Indonesia's maritime sector is also an obstacle contributing to high inter-island transportation costs. This rule restricts international shippers from unloading cargo in Jakarta, picking up local loads and unloading in Makassar, and picking up cargo on the way back on international travel. Without proper planning, shippers don't know when their containers will arrive, compounded by poor connectivity due to congested roads.

The Indonesian government recognizes the importance of an efficient transportation network to promote a more inclusive growth strategy (Sandee et al., 2014). To overcome this, the Indonesian government introduced the 'Shipping Law 2008' to improve the competitiveness of ports. This law aims to eliminate monopoly power from state-owned ports or 'Pelindos' to increase competition and encourage private sector participation by separating the functions of operators and regulators (Shipping Law 2008). The law allows three years to transition to a new governance model that began in 2011. It has been almost a decade since this law was passed in Indonesia. Since then, the current President of Indonesia, Joko Widodo

(Jokowi), has embarked on an ambitious plan to develop Indonesia's maritime sector, continuing the reforms of President Susilo Bambang Yudhoyono (SBY) (2004-2014).

RESEARCH METHOD

This research was conducted with a qualitative approach with a case study method. Unstructured questionnaire data collection techniques and nominal and ordinal data management with the Robert K. Yin model were carried out. So it is easy to get objective data to know and understand the role of the reception port, a case study at the port of Tanjung Priok. This study also used a descriptive method. Data preparation is the sorting of data such as field records and the results of the questionnaire as a whole; data disassemble the stage of sorting data into small units then labeled or coded per small unit; data reassemble, the phase in which small units are rearranged according to their coding/labeling; data interpretation is a translation or interpretation of data that has been arranged in such a way that it is meaningful to answer research questions, and finally summed up.

The main data source of this study is primary data, namely the results of interviews obtained from informants or informants who are potentially providing relevant information and observations. Furthermore, secondary data in the form of literature and documents as well as data taken in the field and contained at the research site in the form of reading materials, library materials, and research reports were obtained. Data analysis in this study was carried out by looking for patterns, models, themes, relationships, equations, and meanings of data expressed in statements and interpretations after data mining from several key informants tabulated and presented. The results of data collection are processed manually, then reduced. The results of the reduction are grouped in the form of certain segments (data display) and then presented as content analysis.



Figure 1. Indonesia Maps
 Source: *World and City Maps (2017)*

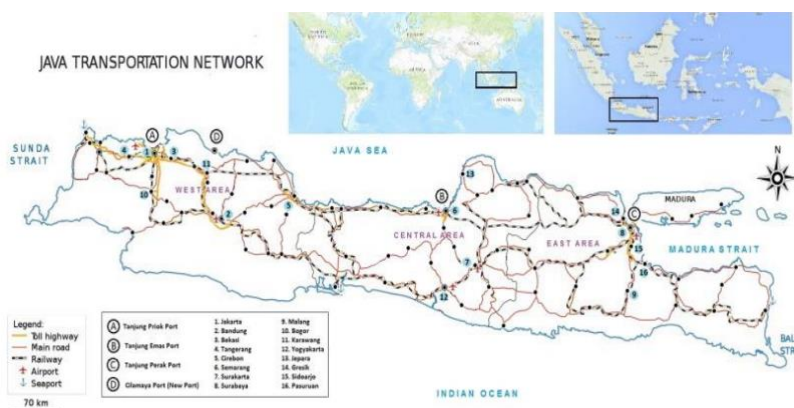


Figure 2. Java Sea Transportation Network
 Sumber: *Nugroho et al. (2016, p.4)*

Tanjung Priok Port is ranked 30th worldwide, handling 6.08 million TEUs in 2017 (World Shipping Council 2017). Tanjung Priok was originally designed to handle 5 million TEUs, but this capacity was exceeded in 2013 when the port had to take nearly 6 million TEUs due to increased container traffic. Due to strong export growth, ports face capacity problems and traffic congestion on major port access roads (Port Finance International 2014; Pang and Gebka 2016; Sandee et al. 2014). Before the 'Shipping 2008 Law', the port was operated and regulated by a state-owned monopoly, Pelindo II (Sandee et Al. 2014). Before the port reform, Tanjung Priok lagged in customs, time efficiency, ship turnover, and ports.

This port handles the transportation of goods from industrial estates, especially from the east of Jakarta, where the largest industrial conglomerate is located. Stay times at the port have continued to increase at the Jakarta International Container Terminal (JICT), an average of 10 days since mid-2013. The increased waiting time is due to the time-consuming pre-clearance procedures and physical examination of goods. Agencies find it difficult to give up their authority to facilitate the integration of permit facilities. Likewise, a new regulation issued by the Ministry of Commerce requires 'new' importing companies to be automatically classified as red line importers. This requires more red line inspections leading to further delays and uncertainty (Sandee et al. 2016). Investors are also hesitant to invest in infrastructure ports due to concerns of low return on investment and lack of a regulatory framework

FINDINGS AND DISCUSSION

After conducting research, it was found that in recent years, due to the influence of the world market in general, Indonesian industrial shipments have not shown signs of recovery. The tonnage of sea freight is low, the source of goods to carry is scarce, and operating costs are increasing, creating many difficulties in the shipping industry. Due to the efficient policy of restricting foreign ships in domestic transport, goods transported by sea, particularly domestic container cargoes, have increased significantly (VNN, 2016). In addition, only a few large companies, including state-owned enterprises, foreign investment companies, and private companies, have general cargo ships that have sufficient capabilities to operate on routes to America and Europe.

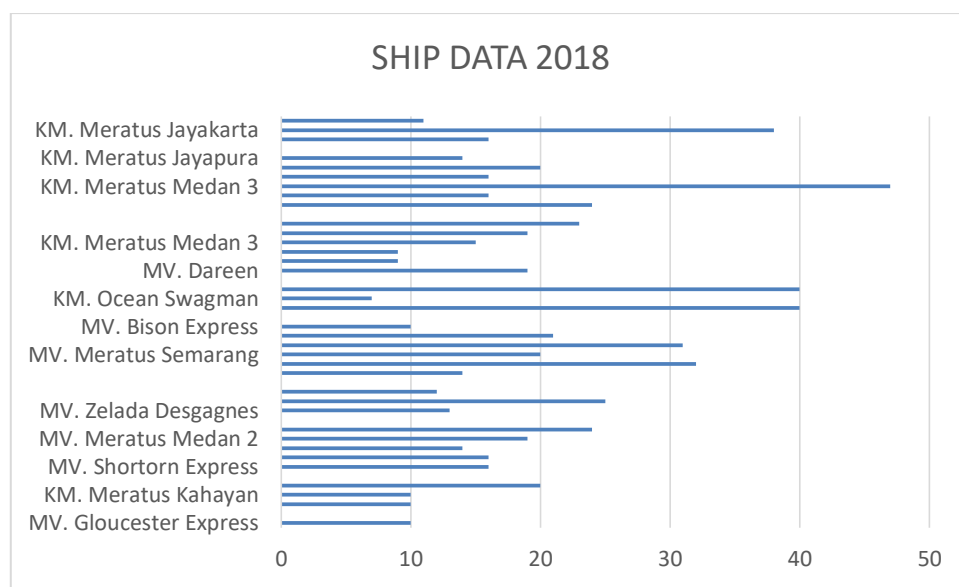


Figure 3. Ship Data 2018

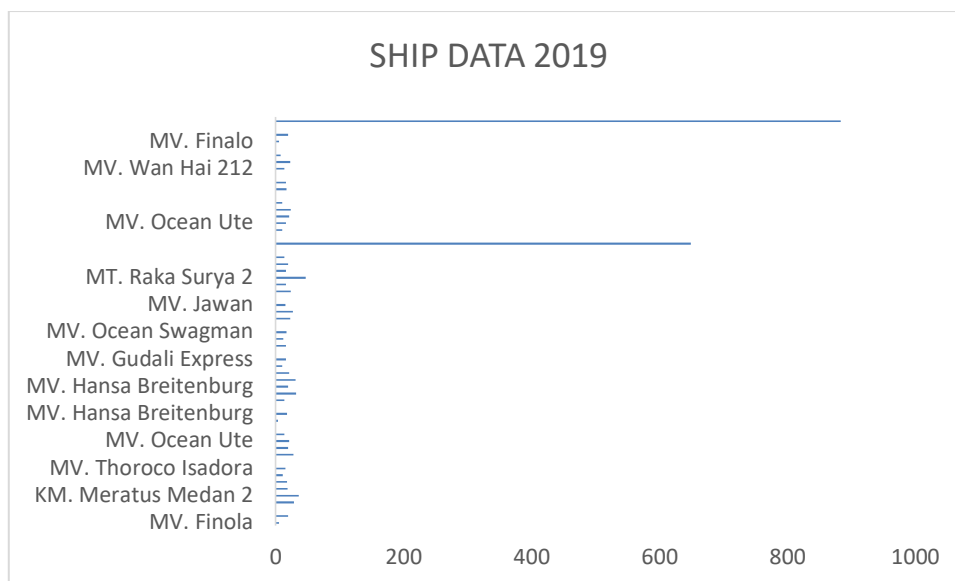


Figure 4. Ship Data 2019

The reception facility in Tanjung Priok has been implemented since 1986 at the Port of Tanjung Priok. From 1986-2001, the Tanjung Priok Branch managed the waste service but without adequate Reception Facility storage facilities. Ships are forced to dispose of waste oil illegally so that the remaining waste oil that can be accommodated is eventually discharged into the sea. Then from 2002-2004, Pelindo Tanjung Priok Reception Facility, in collaboration with PT. Nusantara longing Abadi Charm. From 2004-2007, the Tanjung Priok branch managed the Reception Facility. That year, there were obstacles again, such as the disposal of B3 waste (Hazardous and Toxic Materials) by collectors and sold freely; waste collection activities have not used manifests.

The peak was in the 2008-2012 period when the collection of B3 waste (Toxic and Hazardous Materials) in Tanjung Priok was stopped because the operation of the Reception Facility did not yet have an activity permit from the Ministry of Environment and Forestry, so that the Tug Boat and Reception Facilities had not yet operated. Detained by the Police Headquarters based on the Regulation of the Minister of Environment No.3 of 2007 concerning Facilities for Collecting and Storing B3 Waste at ports. In 2011 PT. Port of Indonesia II (Persero) Tanjung Priok Branch obtained a permit as a collector with the Decree of the State Minister of environment number. 87 2011. Currently, PT. Pelindo II, Tanjung Priok branch, cooperates in managing B3 waste (Toxic and Hazardous Materials) not only with land transportation companies, namely PT. PerishingMsurya Mandala, PT. Dame Alam Sejahtera and PT. Indowastek but also with the Waste Utilization Company, namely PT. The work of Nusa Bumi Persada and PT. Dame Alam Sejahtera.

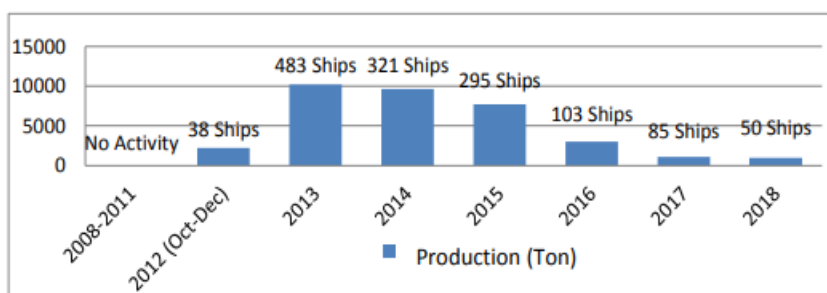


Figure 5. Production of B3 Waste Management activities at PT. Port of Indonesia II (Persero) Tanjung Priok Branch

At Tanjung Priok Port, the number of ships that dispose of their waste at the time of docking ships continues to decline yearly. In 2018 from Inaportnet Tanjung Priok, the Port Authority docked at Tanjung Priok Port both at the port pier. The pier of its interests as many as 15,663 ships and those who disposed of ship waste were only 50 ships that disposed of ship waste or only 0.33% of boats that disposed of their waste at Tanjung Priok Port. This is because the cost of waste disposal services in Tanjung Priok is very high, reaching Rp 1,500,000 / Ton. According to Rahmat Desrial, as Syahbandar Tanjung Priok. This cost is quite high compared to waste disposal in other ASEAN regions. The fees they pay, in their opinion, are very high. Even if it is thrown away, it still has economic value.

Table 1. Operational Costs of B3 Reception Facility (RF) Waste Collection in Tanjung Priok

No	Description	Total (IDR)
1	Security coordination	Rp. 2.000.000.00.,
2	Moving Permits	Rp. 2.500.000.00.,
3	Port Master Waste Disposal Permit	Rp. 1.300.000.00.,
4	B3 Waste Transportation Permit Out of Port (Tanjung Priok Port Authority)	Rp. 1.000.000.00.,
5	Crew Fees	Rp.1.300.000.00.,
6	Coordination of KPLP (Indonesia Sea & Coast Guard)	Rp. 1.000.000.00.,
7	Tanker Truck	Rp. 1.000.000.00.,
8	Utilization Company	Rp. 8.000.000.00.,
9	Pelindo top 2	Rp. 4.000.000.00.,

In addition, an obstacle is that the process of applying for the unloading of ship waste at Tanjung Pelabuhan Priok is quite long. The shipping company or representative agency is no later than 2 days before the ship docks. In 2015, the ship M.V Thana Bitum was authorized by PT. Evergreen, M.V Geberly Express represented by Serasi Shipping, and M.V Fesco Voyager ship authorized by PT. CMA cruise. The three vessels are not served to dispose of waste or sludge oil. This is because the agent representing the service applicant provides the delivery application less than 2 days before the ship docks.

The development and development of the port system about the coastal transportation network is a top priority for establishing and developing urban centers, industrial estates, and tourist service centers. On the other hand, the construction of ports also creates a strong force to advance other sectors such as shipping, shipyards, and maritime services. In addition, Indonesia's port system is part of the transportation infrastructure to meet the requirements of loading and unloading, storing and forwarding goods, and arrival and departure of passengers. It also motivates to promote the development and integration of coastal areas.

The local population and the economy of the whole country about the world economy. It is also a foundation for reaching out to the sea and developing maritime shipping and services to spearhead the maritime economy while effectively strengthening national security and sovereignty over the territorial sea. By 2020 and orientation towards 2030, Indonesia will invest in a synchronous and modern way for a port system that includes infrastructure, ports, and channels. This investment provides for the construction of an international gateway port that will be able to accept ships that are more than 10,000 DWT or container ships from 9,000 TEU (Lach Huyen - Hai Phong) to 15,000 TEUs (Ba Ria - Vung Tau) and can be

combined as an international container transshipment. Expanding a special port used for bulk and liquid cargo to serve industrial areas with the capacity to receive ships between 20,000 and 20,000 DWT (bulk shipment) and between 15 and 30,000 DWT (liquid oil) is also required.

An increase in passenger terminals in major tourist centers with modern terminals that reach international standards for international passenger ships having a tonnage of up to 10 thousand GT is required. Statistics and forecasts show that most port groups have not met the requirements for receiving and treating waste from ships at this time. In the future, only a few groups have developed systems to deal with the increased demand for garbage disposals, such as group 2, group 3, and group 5. Indonesia is an official member of Annex III, IV, V, and VI of the MARPOL Convention, so the Port Authority needs to develop an adequate legal framework to ensure compliance with the Annex to foreign vessels when they arrive at the port of Tanjung Priok.

Moreover, with the rapid development of the economy, the number of arrivals of ships, including Indonesian and foreign vessels, at the port of Tanjung Priok has increased, causing a high risk of environmental pollution in the port of waters. This will cause some difficulties for the port authority and the company's port in managing ship waste at the port. Thus, the specific purpose of the period 2011-2015 is to have at least 30% of international ports equipped with facilities for collecting and treating waste generated by ships. In 2016-2020 and orientation towards 2030, 70% of international ports and 50% of internal terminals will be equipped with port waste acceptance facilities.

Based on the objectives mentioned above, Indonesia must certainly make plans as well as step by step to develop port reception facilities in general and be improved by monitoring the activities of Port Business Entities in receiving and treating waste from ships, especially planning systems for receiving and treating waste from ships must achieve the following objectives:

- 1) Assess the capacity of port reception facilities related to the Plan to develop Indonesia's port system
- 2) Propose solutions for the management of waste receipt and treatment from ships in Indonesian ports by the provisions of the MARPOL Convention and Indonesian legal documents
- 3) Develop and complete a system of legal documents relating to ports and reception facilities by the provisions of the MARPOL Convention and
- 4) Ensure conditions for environmental protection as well as sustainable development.

Under actual conditions and circumstances, each port can choose one or more forms suitable for receiving and treating ship-generated waste to meet the requirements of the MARPOL Convention and Indonesian legal documents. Currently, this form is applied in most ports in Indonesia. It is suitable for ports that are not equipped with port reception facilities, but the surrounding area has companies that already have permits to collect and treat waste from ships. In addition, due to cooperation with the company, the port can mobilize capital from socialization will be appropriate for ports that have facilities for reception and collection or sufficient funds to invest in these facilities; the surrounding area has companies that have licenses to collect and treat waste from ships.

It is a complete form and will be forward-oriented. However, on the financial aspect, the capital invested in building the sewage treatment center and operating costs are very expensive. The port must consider this issue before investing or requesting social capital from outside. This form is suitable for ports with sufficient land for constructing a waste treatment center and is equipped with reception facilities. For oil residues and mixtures, after being separated, the oil will pass through the containment tank.

Waste oil will be processed in the sewage oil treatment system. The treatment system follows the methods mentioned below:

- a) Physical: deposition, filtration, separation, and flotation.
- b) Chemical: oxidation.
- c) Physical and chemical: colloidal suspensions
- d) Biological: using anaerobic bacteria, nitrogen in batch form, and activated sludge.

Waste Collection and Treatment Process

Waste from ships is mainly processed on board ships and disposed of directly on the way; only about 25% must be disposed of at the port. Ports or companies outside the dock are responsible for collecting this waste, then transporting it to the central treatment site. Untreated waste may contain water, solids, nutrients, oils and greases, pathogens, toxic chemicals, and heavy metals. Sewage treatment treats contaminants, microorganisms, and other types of pollutants before returning them to the environment or reusable sources.

The selection of methods for sewage treatment is usually based on the characteristics of contaminants in the waste. Commonly used methods in sewage treatment are: physical, chemical, and biological.

1) Physical

Physical treatment methods include isolating and removing insoluble and colloidal substances from waste. The waste will be passed through the following equipment: garbage racks, filters, stabilizer tanks, and tank sedimentation to separate suspended sediments.

2) Ship Reception Facilities (Barges, trucks, pumps, and pipes), Storage (if necessary), (Tanks) Transport (Barges, trucks), Treatment (physical, chemical, biological). Chemicals

Chemical methods used in sewage treatment systems include neutralization, reduction/oxidation reactions, and toxic compounds deposition or decomposition. The basis of this method is a chemical reaction between pollutants and additives. The advantage of this method is that it is very efficient; it is often used in closed water treatment systems. However, the chemical method has the disadvantage that its operational costs are expensive.

3) Biological

The essence of the biological method of waste treatment is to use the viability and activity of beneficial microorganisms to destroy organic matter and pollutants, and components in the wastewater. The bioprocess process includes the main stages: aerobic, anoxic, anaerobic, anaerobic, combining anaerobic and anoxic-anaerobic. With garbage, reception and collection at the port will be handled by the port or environmental company. Then the trash will be transported to the processing centers for treatment. Due to the peculiarities of litter, waste processing centers must have a large area for allocating garbage.

So the waste treatment center cannot be located inside the port. Indonesia currently uses the following waste processing technologies: landfill, composting, burning, and recycling. Landfill The use of landfills is the most common method for waste disposal, without treatment. This method is used for solid waste containing non-recyclable materials components or components that are further classified or cannot be decomposed in organic fertilizers such as ash left behind after the garbage is burned. Landfill is an area or land chosen to bury waste to minimize the negative impact of landfill on the environment. Landfill sites include sewage burial sites, buffer zones and other building additions such as wastewater and gas treatment units, power supply stations and operational offices. Composting This method is being

applied in some areas. This method of treatment does not cause odors and pathogenic microorganisms. The substance will convert the organic matter in the waste into a stable form, then decrease microbial activity and restore nutrients to make fertilizer. The method of utilizing waste for composting has the advantage of reducing the amount of organic waste that needs to be buried, providing fertilizer for agriculture.

4) Combustion

This method is used in many places to treat solid waste. This method brings such advantages as thorough treatment of harmful substances in the garbage, not much space and time as landfill and especially energy recovery methods for electricity or heating. However, it has the disadvantage of causing air pollution. Recycling Repurposable types of solid waste such as glass, copper, aluminum, iron, paper, etc. will be collected and classified. Solid waste recovery makes a significant contribution to reducing the amount of waste treated and utilizing input materials for the production process.

CONCLUSION AND RECOMMENDATION

Many of Indonesia's problems today are the result of policy failures in the past and Indonesia's need to free itself from the mindset inherited from the colonial period if it wants to escape the middle of the income trap and move forward. Similarities can be found between the colonial economy and Indonesia's current economic situation, one of which is Indonesia's dependence on natural sources of income (Negara and Wihardjia 2015).

Indonesian policymakers also did not fully embrace the competition for liberalisation and switched 'easily' between introducing their relaxed restrictions on trade in industry. However, protectionism and inward-oriented policies will be counterproductive to Indonesia in today's global environment.

Instead of pursuing interventionist policies, the government needs to consider structural economic reforms in terms of infrastructure, logistics and rules and regulations. The transition to a higher-income country will also require innovation, investment in education and infrastructure that will result in increased productivity.

In the past, Indonesia's policies have been characterized as 'bad times that lead to good policies'. The decline in oil revenues in the 1980s prompted the government to implement broad-based economic reforms that encouraged the development industry in Indonesia. However, this was reversed in the next decade.

Despite the kaleidoscope of economic plans, economic growth has not yet reached the level for Indonesia to transition into a developed economy by 2030. Decentralization further worsens coordination between the central and local governments, making it difficult to plan. The reduction of trade barriers in the region and the removal of tariffs are likely to bring imports and exports to and from Indonesia.

The organization of efficient logistics systems is an important factor in Indonesia's socio-economic development (World Bank 2013). In particular, efficient maritime infrastructure is critical for Indonesia to remain competitive with neighboring countries (Nederland Maritiem Land 2015). Infrastructure continues to be a major priority of President Jokowi's administration.

The integrated system for monitoring B3 waste vessels is still in the process of making a Port Waste System Management (PWSM) application that will be integrated with the internet port. This has not been implemented which makes the ships that will dispose of the garbage unknowable. In addition, it is necessary to coordinate between agencies to overcome these problems related to the integrated B3 waste regulation and monitoring system so that ships dispose of B3 waste into the Admission Facility.

Furthermore, sanctions are needed if there are differences in the waste on the log-book sheet and the ship's waste loading tank. It can be known whether the ship disposed of its waste properly in the previous port or disposed of it into the sea when there was a ship's voyage.

In addition, socialization and a thorough understanding of the resolutions, guidelines and policies of the Government towards programs to improve the implementation of environmental protection to agencies, companies, officials, workers in the maritime industry through meetings, seminars. Publish and distribute information about the port including services, guidance, security as well as port reception facilities.

It uses environmental protection regulations as a tool to deploy and integrate environmental safeguarding content in port development planning. Training in environmental management skills for managers, officials in the marine sector of industry such as port companies, shipyards, shipping companies

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