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K3 (KEBERSIHAN, KEAMANAN, KETERTIBAN) DEVELOPMENT STRATEGY IN SAMUDERA NIZAM ZACHMAN JAKARTA FISHING HARBOR

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ABSTRACT
Ministry of Marine Affairs and Fisheries in 2013 advised Samudera Nizam Zachman Jakarta Fishing Harbor (PPSNZJ) to conduct a program called K3 (*Kebersihan*=cleanliness, *Keamanan*=safety, *Ketertiban*=order) in order to create an environmental-oriented fishing harbor. As the largest fishing harbor in Indonesia, PPSNJ has encountered sanitation and order issues in the past years. The objective of this study is to develop strategy to develop K3 in PPSNZJ. This descriptive study was conducted between October and November, 2018. The data analysis method was SWOT analysis. The data collection methods were survey and interview and the number of respondents were 10 respondents. The findings showed that alternative strategies to develop K3 in PPSNZJ were to improve performance of K3 working team, develop and enforce a set of rules, including penalty, to apply K3 program, increase number of K3 facilities and infrastructure, conduct K3 program and invite both management and users to participate in K3 program.

KEY WORDS
K3, Samudera Nizam Zachman Jakarta Fishing Harbor, SWOT, public service.

Indonesian fishing harbor should meet a set of international standard. One of the aspects is fishing harbor hygiene and sanitation. Prior to establishment of related policy, one should review the blue print of national fishing harbor. The 2014 Decree of Minister of Marine Affairs and Fisheries number 45 on the blue print of national fishing harbor and 2012 Decree of Minister of Marine Affairs and Fisheries number 8 stated development of fishing harbor should focus on the environment in which environmental management system becomes the approach in fishing harbor operating system and ISO 14001 principles become criteria for its environment and facilities, processing companies and its users. Government is responsible for environmental supervision, which is to conduct K3. K3 aims to create clean, safe and orderly fishing harbor, create environmental-oriented fishing harbor, provide optimum service and eradicate negative perception about fishing harbor that exists in the society.

Until recently, some fishing harbors in Indonesia do not have an adequate waste management system. In general, people associate fishing harbor with negative adjectives such as dark, dirty, smelly, crowded and dangerous. Many of them avoid this place. Lubis (2012) stated that fishing harbor and its surrounding areas are unsanitary and slum-like. As an addition, Wahyudi *et al.* (2017) noted that sanitation and hygiene are two major issues that occur in fishing harbor. K3 is a program of which objective is to maintain hygiene and sanitation in fishing harbor and surrounding areas.

Samudera Nizam Zachman Jakarta Fishing Harbor (PPSNZJ) is one of the 6 grade A-fishing harbors (ocean) and the largest fishing harbor in Indonesia. In 2013, Ministry of Marine Affairs and Fisheries gave recommendation to PPSNZJ to develop environmental-oriented fishing harbor similar to commercial harbors in European Union countries (Mbay *et al.*, 2014; Zebblon e*t al.*, 2016; Muninggar *et al.*, 2016; Sulistio *et al.*, 2016). As the largest fishing harbor in Indonesia, PPSNZJ operates around the clock. Activities taking place in the harbor, for example docking, repair and assembly, TPI, canned fish production, activities in foodstalls/restaurants/office building located in PPSNZJ and labor mobility results in garbage disposal, both solid and liquid garbage. Domestic waste and oil discharge from ships are found on the water. Activities taking place in fishing harbor may cause land and water

pollution where domestic waste becomes the major pollutant (Supriyanto, 2013; Muninggar *et al.*, 2016; Zulfa, 2018).

Sanitation and order are two main issues taking place in PPSNZJ. Individuals working in and around the harbor have are dumping their waste to the water. As an addition, the harbor does not have an adequate drainage system; waste and liquid waste flooded existing drainage system and as the result, it is clogged and smells really bad. Furthermore, PPSNZJ has limited parking space and consequently, many vehicles should park on the side of the road and the pier. Supriyanto (2013) stated that sanitation, water pollution, solid and liquid waste, odor and clogged drainage are some issues PPSNZJ has to take care of immediately.

PPSNZJ should overcome environmental issues they are facing currently. It should identify strength, weakness, opportunity and threat and then develop a suitable developmental strategy. The purpose of this study is to develop strategy for implementation of K3 in PPSNZJ. It is expected that the strategy furthers PPSNZJ into an environmental-oriented harbor and functions as reference for other fishing ports interested in implementation of K3.

Based on the Decree of Directorate General of Capture Fisheries number 16/KEP-DJPT/2013 on Guideline on Sanitation, Safety and Order (*Kebersihan, Kemanan and Ketertiban*/K3) in Fishing Harbor, sanitation refers to environmental control within the scope of sanitation (waste management, liquid waste management, drainage), fish handling, transportation and harbor facilities. Safety is to keep fishing harbor and areas around the harbor safe including safety when natural disaster strikes. According to the Minister of Marine Affairs and Fisheries (2010), security is free from any danger. This terminology can be used for any types of crime, accident and so forth. the Decree of Directorate General of Capture Fisheries number 16/KEP-DJPT/2013 on Guideline on Sanitation, Safety and Order (Kebersihan, Kemanan and Ketertiban/K3) in Fishing Harbor defines order as control of the environment in terms of procedure or activities, tidiness and discipline in all activities taking place in fishing harbor. Minister of Marine Affairs and Fisheries (2010) stated that order is orderly society and public obedience that leads to high working motivation and performance. Orderly fishing harbor means regularity in all operating activities in fishing port.

METHODS OF RESEARCH

The study was conducted in Samudera Nizam Zachman Fishinh Harbor, Muara Baru Ujung, Penjaringan Sub-region, Penjaringan Region, North Jakarta, DKI Jakarta, Indonesia between October and November, 2018. This study used descriptive method. The types of data used in the study were primary and secondary data. The primary data were result of SWOT questionnaires on implementation of K3 in PPSNZJ. Questionnaire was distributed to 10 keypersons which consisted of 5 management staffs (Head of Administration, Head of General Affairs, Head of Management and Business, Chief Cleaning Officer and Head of Security) and 5 PPSNZJ users (member of purse seine nusantara, association of fishermen, fishing boat worker, cold storage worker, foodstall/kiosk worker and visitor). Nurhayati (2008) stated that to select keyperson, researcher should be certain that individuals he or she picks can provide relevant information for his or research topic. The sampling method used to select the keyperson was purposive sampling method. Sugiyono (2015) stated that purposive sampling is a sampling technique based on particular criteria. The secondary data were PPSNZJ annual report and report on K3 implementation in PPSNZJ. The data collection techniques were survey and interview. Sangadji and Sopiah (2010) explained that survey is a data collection method that involves oral and written questions based on communication between researcher and respondent. Furthermore, Nazir (2014) mentioned that interview is a process to probe information based one-on-one question and answer session between researcher and respondent in which interview guide becomes instrument.

The data analysis method was Strength Weakness Opportunity Threat (SWOT) analysis. Rangkuti (2017) noted that SWOT is a process of identifying various factors in organized manner in order to get alternative strategies. One of the methods that can be used to determine developmental strategy in a harbor is SWOT (Widianti and Damayanti, 2015).

The researchers adopted Rangkuti's method (2017) for SWOT analysis. SWOT aims to develop alternative strategy for K3 in PPSNZJ. SWOT analysis was conducted by identification of internal and external factors in implementation of K3. Internal factors were divided by two parts, strength and weakness while external ones were divided into opportunity and threat. Internal and external factors were obtained from previous studies, field observation and result of interview (keyperson interview).

The internal and external factors were analyzed based on Internal Strategy Factors Analysis Summary (IFAS) and External Strategy Factors Analysis Summary (EFAS) matrix. Internal Strategy Factors Analysis Summary (IFAS) and External Strategy Factors Analysis Summary (EFAS) were used for weighing and rating as well as scoring and total weighing score. Paired comparison method was used to determine scale in weighing that became strength, weakness, opportunity and threat. The next step was to develop SWOT matrix to get alternative strategy for K3 implementation in PPSNZJ.

RESULTS AND DISCUSSION

PPSNZJ, the largest fishing harbor in Indonesia, is located in Jalan Tuna Raya number 1, Muara Baru Ujung, Penjaringan sub-region, Penjaringan region, North Jakarta, DKI Jakarta. Total area of PPSNJZ is 109.9 hectares which consists of 38.9 hectares of water of which depth is between -0.5 and -8.4 meters (based on 2015 bathymetry data) and 71 hectares of land that is divided into 31 hectares of public service center and 40 hectares of fish industry. PPSNZJ is 10 kilometers away from the city center, 25 kilometers away from Soekarno-Hatta International Airport, 35 kilometers away from Halim Perdana Kusuma Airport, 9 kilometers away from Tanjung Priok International Airport, 6 kilometers away from Muara Angke Fish Landing place and 3 kilometers away from one of the Technical Units of Directorate General of Capture Fish, Ministry of Marine Affairs and Fisheries built in 1980 and established in 17 July 1984 (Samudera Nizam Zachman Jakarta Fishing Harbor, 2018). Average temperature in PPSNZJ is 30.2^{O}C. Maximum temperature is 32.2^{O}C while minimum temperature is 26.0^{O}C.

Implementation of K3 in fishing harbor is mandate of the 2004 Decree number 31 and its amendment the 2009 Decree number 45 on Fisheries. The decrees stated that one of the functions of fishing harbor to support management and production of fish resource is to maintain the environment. To carry out this function, fishinh harbor conducts K3 as regulated in Article 17 Paragraph 2 of Decree of Minister of Marine Affairs and Fisheries number Per.20/Men/2014 on Organization and Description of Technical Units of Fishing Harbor. To support implementation of K3 in fishing harbor, Head of PPSNZJ issued Decree of Head of Fishing Harbor number KPTS. 05/PPSNZJ.A/KP.440/I/2017 on Sanitation, Safety and Order (Kebersihan, Keamanan and Ketertiban/K3) Team in 2017. This team is responsible for (1) networking between PPSNZJ and related institutions and users on implementation of K3 in PPSNZJ, (2) supervising implementation of K3 in the fishing harbor, (3) cleaning the harbor and its surrounding areas together with other related institutions and users every Tuesday, (4) penalty, (5) reporting implementation of K3 to the Head of PPSNZJ. Cleaning staffs are responsible for cleaning the harbor every day between 6 a.m. and 11 a.m. Security staffs are responsible for keeping the harbor and its surrounding areas safe and organized for 24 hours. Each security staff is responsible for certain area of the harbor for particular amount of time.

Besides actively participating in community service, the harbor workers responsible for implementation of K3 distributed circulars and banners and announce the importance of K3 through loudspeakers located on the East and West Pier to the fishing harbor users. Regional supervisor, cleaning officer, coordinators, team leader and security staffs are responsible for supervising implementation of K3 in the fishing harbor. PPSNZJ provides some cleaning equipment such as backhoe loaders, dump trucks, trash bins and temporary garbage bin. As an addition, the fishing harbor also provides some equipment for security such as mobile fence, police station, security guard post, loudspeakers and CCTV.

Transportation officers use ships, tugboats and vessels to monitor docking, compliance to zoning regulation, fire fighting process and cleanliness in and around the fishing harbor.

Internal factors considered as strength in implementation of K3 in PPSNZJ are as follows:

Working Unit (Team) Responsible for Implementation of K3. Head of PPSNZJ assigned a working unit responsible for implementation of L3 in the fishing harbor in order to make sure that the harbor and its surrounding area are clean, safe and organized. This working unit is established based on the Decree of the Directorate General of Captured Fish number 16/KEP.DJPT/2013 on Guidelines of K3 which stated that implementation of K3 in fishing port is one of the methods to maintain environmental sustainability. K3 is conducted in PPSNZJ on a daily basis. To support implementation of K3 in fishing harbor, Head of PPSNZJ issued a decree number KPTS.05/PPSNZJ.A/KP.440/I/2017 on establishment of Kebersihan, Keamanan and Ketertiban (K3) working unit in 2017. Muninggar *et al.* (2016) stated that PPSNZJ has appointed several workers responsible for implementation of K3. Kebersihan, Keamanan and Ketertiban (K3) Working Unit is responsible for:

Working together with other institutions and users for implementation of K3 in PPSNZJ. PPSNZJ Works together with other institutions and entrepreneurs around the fishing harbor, such as Indonesian Fisheries General Company (Center), Indonesian Fisheries General Company of Jakarta, Department of Marine, Fisheries and Food Security of Jakarta, SDKP Monitoring Base of Jakarta, Marine Security, Traffic Controller and Muara Baru Fishery Port Authority, Muara Baru Port Health Office, Muara Baru Police Statiom, Muara Baru Fire Station, fishing industry (fish processing units, cold storage and tuna landing centers), shipyards, SPBBs, clean water processors and other businesses.

Community Service on Tuesdays. Based on the 2017 annual report of PPSNZJ, the Director of Fishing Harbor, DJPT and stakeholders clean the fishing harbor and its surrounding areas every Tuesday. Hakim (2013) reported that all PPSNZJ workers, related institutions and representatives of companies in PPSNZJ clean the harbor and its surrounding areas. This activity is called "Selasa Bersih".

Spreading Information about K3 to Related Institutions and Users. Based on Implementation of K3 in PPSNZJ report and one of the responsibilities of K3 working unit, K3 working units and harbormaster should spread information about implementation of K3 in PPSNZJ to user and related institutions through circulars, banner and loudspeakers. Wibisono and Dewi (2014) stated that the objective is to maintain cleanliness, prevent people from littering and raise their awareness about negative effect of littering.

K3 Standard Operating Procedures. PPSNZJ has several standard operating procedures related to safety and order in PPSNZJ for example standard operating procedures on security in particular region in the harbor, traffic control and penalty. Objective of the standard operating procedure is to make sure that operating activities in the fishing harbor run smoothly. Gabriele (2018) stated that standard operating procedure helps institution achieving its targets. Standard operating procedure functions as guidelines for employees, allowing them to understand their responsibility and minimize errors.

K3 Infrastructure and Facilities. PPSNZJ provides several infrastructure and facilities to support implementation of K3 such as backhoe loader, dump truck, trash bin, temporary dumpster, IPAL, clean water, drainage system, public toilet, cleaning and safety equipment, mobile fence, police station, security guard post, loudspeaker, CCTV, parking area, signs and notification board.

Internal factors considered as weakness in implementation of K3 in PPSNZJ are as follows:

Legal Bases in Penalizing Violation of K3. PPSNZJ does not penalize any users who litter or park their vehicles on the side of the road. PPSNZJ could issue verbal notification only because it does not have any legal basis to penalize violation of K3. As the result, users tend to violate existing regulation repeatedly.

Limited Infrastructure and Facility for K3. PPSNZJ has provided infrastructure and facilities to support implementation of K3. However, number of trash bin, public toilet,

cleaning and safety equipment, security guard post, parking area and notification board is limited. As an addition, the drainage system is clogged and as the consequence, smells bad.

Waste on PPSNZJ Water. Excess oil and solid waste from operating and human activities in the harbor are found around the pier and body of water in the harbor. Supriyanto (2013) and Muninggar *et al.* (2016) stated that domestic waste and excess oil are two types of waste commonly found in and around the fishing harbor. People are littering because they are used to doing that. Wibisono and Dewi (2014) argue that environment is one of the major causes of littering. Environment plays significant role in this negative habit (littering).

External factors considered as opportunities in implementation of K3 in PPSNZJ are as follows:

Government Regulation that Supports Implementation of K3. The 2009 Decree number 45, the amendment of the 2004 Decree number 31 on Fisheries, Decree of Minister of Marine Affairs and Fisheries number Per.20/Men/2014 on Organization and Description of Technical Working Unit of Fishing Harbor, Decree of Minister of Marine Affairs and Fisheries number Per.08/Men/2012 on Fishing Port stated that one of the functions of public fishing port is to support all activities related to management and production of fish resources and environmental preservation. To carry out this function, fishing harbor conducts K3. Directorate General of Captured Fish used Guideline on implementation of K3 in fishing harbor to make sure that implementation of K3 runs smoothly and effectively. It aims to develop a clean and organized fishing harbor.

Implementation of K3 in Fishing Harbor Questionnaire Guideline. This guideline is issued by Director of Fishing Harbor, Directorate General of Captured Fish, Ministry of Marine Affairs and Fisheries in 2010 to help fishing harbor authority developing questionnaire/checklist to evaluate implementation of K3 in fishing harbor regularly.

ISO 14001:2015 Certification on Environmental Management System. PPSNZJ has started implementation of ISO 14001: 2015 for environmental management system. Implementation of ISO 14001: 2015 for environmental management system is carried out in PPSNZJ administration office and integrated service office; these units requires paper, ink and electricity to support their activities and are responsible for trash and reforestation in PPSNZJ and its surrounding areas. Other activities conducted to support implementation of ISO 14001: 2015 for Environmental Management systems are as follows:

- Spreading information about implementation of ISO 14001:2015 for environmental management system to PPSNZJ staffs;
- Establish Environmental Management Committee and Decree of Environmental Management Committee;
- Develop ISO 14001:2015 Environmental Management System Guideline under QAI consultant supervision;
- Implementation of Environmental Policy by Head of PPSNZJ;
- Conduct internal audit training on implementation of ISO 14001:2015 to PPSNZJ staffs;
- ISO 14001:2015 for Environmental Management System certification.

PNBP from cleaning and security service. PPSNZJ received non-tax state revenues from cleaning and security service every year. According to the 1997 Decree number 20 on Non-Tax State Revenues, Non-Tax State Revenues can be used for certain activities related to type of the Non-Tax State Revenues for instance research, development of technological devices, and cleaning, order and security services.

External factors considered as threats in implementation of K3 in PPSNZJ are as follows:

Water pollution in PPSNZJ fishing harbor. Pollution refers to excessive intrusion of living beings, substances, energy, and/or other components into the environment by human activities. Excess oil and waste will disturb the water in the fishing harbor. Hakim (2013), Supriyanto (2013) and Muninggar et al. (2016) stated that solid and liquied waste has polluted the waters. Zulfa (2016) argued that activities taking place in the fishing parts can pollute the fishing harbor.

Lack of awareness on sanitation and security. Many users dump their waste to the water and park their vehicles on the side of the road. Iskandar (2018) noted that fishing port users should maintain cleanliness and security of their environment. Therefore, all PPSNZJ users should carry out K3 programs in PPSNZJ consistently.

SWOT analysis on development of K3 in PPSNZJ begins with data collection. This analysis was conducted through observation and identification of internal and external condition related to K3. These data were then arranged into table for data analysis.

Table 1 – Internal Strategy Factors Analysis Summary (IFAS) Matrix

Internal Factor		Weighing	Rating	Score
Strength				
S1	Team responsible for K3	0.22	4	0.86
S2	Socialization of K3	0.13	3	0.39
S3	K3 Standard Operating Procedures	0.13	4	0.52
S4	K3 Infrastructure and Facilities	0.13	4	0.52
	Total			2.29
Weakness				
W1	Legal Basis for Sanction	0.13	4	0.52
W2	Limited K3 Infrastructure and Facilities	0.13	3	0.39
W3	Waste on PPSNZJ Water	0.13	3	0.39
	Total	1.00		1.30

Source: Primary Data (2018).

Table 2 – External Strategy Factors Analysis Summary (EFAS) Matrix

External Factor		Weighing	Rating	Score
Opportunities				
O1	Government Regulation Supporting Implementation of K3	0.24	4	0.96
O2	Guideline for K3 Implementation in Fishing Harbor Questionnaire	0.13	3	0.39
O3	ISO 14001:2015 Certification for Environmental Management System	0.13	4	0.52
O4	PNBP from cleaning and security service	0.13	4	0.52
	Total			2.39
Threats				
T1	Water pollution	0.13	4	0.52
T2	Lack of PPSNZJ User Awareness on Sanitation and Security	0.24	4	0.96
	Total	1.00		1.48

Source: Primary Data (2018).

Based on Internal Strategy Factors Analysis Summary (IFAS) and External Strategy Factors Analysis Summary (EFAS), total score of strengths is 2.29. Team responsible for implementation of K3 is the major strength PPSNZJ has. Its score is 0.86. This team was developed based on the Head of PPSNZJ's recommendation. Spreading information about K3 is element of strength that has the least significant influence. Its score is 0.39. Out of four elements of SWOT analysis, weakness is the one with the lowest total score (1.30). Legal basis in sanction is element of weakness with the lowest score (0.52). PPSNZJ staffs and users tend to violate K3 regulations repeatedly because they know that legal bases on K3 implementation have not been established yet. On the other hand, elements of weakness with the least significant influence are limited K3 infrastructure and facilities and waste on PPSNZJ water (0.39). As an addition, total score of opportunities is 2.39. Government regulations that support implementation of K3, namely the 2004 Decree number 31, Per.20/Men/2014, Per.08/Men/2012 and Decree of Directorate General of Captured Fish are the highest opportunity PPSNZJ has (0.96). Meanwhile, element of opportunities with the least significant influence is guideline for K3 implementation in fishing harbor questionnaire of which score is 0.39. As an addition, total score of threat is 1.48. Lack of PPSNZJ user Awareness on sanitation and security is the biggest threat PPSNZJ should face in implementation of K3 (0.96). PPSNZJ users and staff awareness play pivotal role in sanitation and order in the fishing harbor. On the other hand, water pollution, of which score is 0.52, is the least significant threat PPSNZJ should encounter.

Based on the data collection, alternative developmental strategies for development of K3 in PPSNZJ are as follows:

Table 3 – SWOT Matrix

n/n	Strengths (S) Team responsible for K3 Socialization of K3, K3 Standard Operating Procedures K3 Infrastructure and Facilities	Weakness (W) Legal bases for sanction, Limited K3 Infrastructure and Facilities Waste in PPSNZJ Water
Opportunities (O) Government Regulation Supporting Implementation of K3 Guideline for K3 Implementation in Fishing Harbor Questionnaire ISO 14001:2015 Certification for Environmental Management System PNBP from cleaning and security service	S-O Strategy Improve Performance of K3 Working Unit (S1, S2, S3, S4, O1, O2)	W-O Strategy Legal Basis for Penalizing Violation of K3 (W1, O1)
Threats (T) Water pollution Lack of PPSNZJ User Awareness on Sanitation and Security	S-T Strategy Invite PPSNZJ management and users to participate in K3 implementation and community service every Tuesday (S1, S2, S3, S4, T1, T2)	W-T Strategy Increase number of and improve quality of K3 Infrastructure and Facilities (W2, W3, T1, T2)

Source: Primary Data (2018).

Four alternative strategies for development of K3 in PPSNZJ are developed based on SWOT matrix. Wijayanto et al (2013) stated that the alternative strategy is developed by making comparison between internal and external factors. The strategy used is SO (Strengths-Opportunities), ST (Strengths-Threats), WO (Weaknesses-Opportunities), and WT (Weaknesses-Threats).

Alternative strategy developed from combination between Strength-Opportunities (SO) is to improve performance of team responsible for implementation of K3. PPSNZJ should use the Ministry of Marine Affairs and Fisheries regulation on environmental management in fishing harbor and guideline for implementation of K3 in fishing harbor in the form of implementation, supervision, training, law enforcement and evaluation as legal basis to improve performance of the team. It is pivotal for PPSNZJ to improve performance of K3 team in order to prepare this team to deal with environmental issues occur in and around the fishing port. When K3 team has good performance, PPSNZJ will transform into a clean, safe and organized fishing harbor. Lubis and Pane (2010) and Suherman (2011) stated that effective method to create environmental-oriented fishing harbor is to improve quality of human resource working in and around the fishing harbor.

Alternative strategy developed from combination between Weakness-Opportunities (WO) is establishment of legal basis for penalizing violation of K3. Its purpose is to prevent PPSNZJ staffs and users from violating regulations related to K3. Legal basis related to K3 allows PPSNZJ to give sanction or punishment to its staffs or users who violate regulations about K3. Widowati (2015) stated that legal basis refers to guideline that motivates people to behave in public eyes. People should obey regulations otherwise they will be given sanction.

Alternative strategy developed from combination between Strength-Threat (ST) is to invite PPSNZJ management and users to participate in K3 implementation and community service every Tuesday. Its objective is to keep PPSNZJ and its surrounding areas clean, safe and organized. K3 and community service should be conducted on a daily basis in order that both PPSNZJ staffs and users get accustomed of the programs.

Alternative strategy developed from combination between Weakness-Threat (WT) is to increase number of and improve quality of K3 infrastructure and facilities. Its goal is to improve quality of the fishing harbor and keep the harbor safe, clean and organized. Infrastructure and facilities enhance implementation of K3 in PPSNZJ. An element that influences quality of fishing harbor is complete infrastructure and facilities for K3. Setyaningsih (2018) emphasized on importance of infrastructure and facilities to support a

program. They play vital role in success of a program and therefore, an organization including PPSNZJ should increase number of and increase quality of its infrastructure and facility.

CONCLUSION

The findings of the study are four alternative strategies to develop K3 in PPSNZJ. The first is to improve performance of team responsible for implementation of K3. The second is establishment of legal basis for penalizing violation of K3. The third strategy is to increase number of and improve quality of K3 infrastructure and facilities and the last is to invite PPSNZJ management and users to participate in K3 implementation and community service every Tuesday. Objectives of implementation of K3 in PPSNZJ are to increase quality of PPSNZJ environment and keep the fishing harbor clean, safe and well-organized. 2014 Decree of Minister of Marine Affairs and Fisheries number 45 on Blue Print of National Fishing Harbor, 2012 Decree of Minister of Marine Affairs and Fisheries number 8 on fishing harbor and ISO 14001:2015 on Management System for Environment should be used as references for implementation of K3. Government institution (PPSNZJ management) should improve performance of K3 team through implementation, supervision, counseling, law enforcement and evaluation on implementation of K3 regularly and continuously. As an addition, PPSNZJ management should issue legal basis for penalizing violation of K3. The fishing harbor management should invite its staffs and users to participate in K3 implementation and community service every Tuesday.

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