



## OVERVIEW: SANITATION CONDITIONS IN TERMINAL GAMALAMA, TERNATE CITY

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### Abstrak

Terminal sebagai tempat umum di mana aktifitas manusia begitu ramai menyebabkan sebagian besar dari masyarakat menghabiskan waktu di sana. Metode penelitian ini adalah deskripsi observasional. Sampel penelitian ini adalah total populasi, yaitu kesehatan lingkungan, ruang lingkungan dan bangunan, fasilitas sanitasi, kenyamanan dan keselamatan, dan kesehatan pangan di lingkungan terminal Gamalama Kota Ternate. Teknik *sampling* menggunakan *total sampling*. Instrumen yang digunakan adalah lembar penilaian dari Departemen Pencegahan dan Pengendalian Penyakit Kesehatan, Kementerian Kesehatan Republik Indonesia. Tahapan penelitian ini adalah pengumpulan data, kemudian diproses secara manual dengan tahap pengeditan, tabulasi dan kemudian dianalisis secara deskriptif dengan membandingkan dengan peraturan yang ada. Hasil penelitian menunjukkan bahwa lima komponen yang diteliti tidak ada yang memenuhi persyaratan untuk sanitasi lingkungan (75), ruang sanitasi dan bangunan (58), fasilitas sanitasi (103), kenyamanan dan keamanan (32) dan sanitasi (32), dan fasilitas lainnya (14). Kesimpulan: fasilitas sanitasi di Terminal Gamalama tidak memenuhi syarat dan berpotensi mengganggu kesehatan dan kenyamanan.

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### Abstract

The terminal as a public place, where human activity is so crowded also causes most of these people to spend time there. The research method is descriptive observational. The sample of this research is the total population, namely environmental health outside, environmental space and buildings, sanitation facilities, comfort and safety, and food health in the Ternate City Gamalama terminal environment. Sampling uses a total sampling technique. The instrument used was the assessment sheet of the Ministry of Health's Republic of Indonesia Department of Health's Disease Prevention and Control. The stages of the study were data collection, then processed manually with stages of editing, tabulation, and then analyzed descriptively by comparing with existing regulations. The results showed that five of the components studied were none that met the requirements for environmental sanitation (75), sanitary space and buildings (58), sanitation facilities (103), comfort and safety (46), and food sanitation (32), and other facilities (14). Conclusion: In conclusion, sanitary facilities in terms of Gamalama are not eligible and can potentially interfere with health and comfort.

## Introductions

Basically, environmental sanitation is very broad in scope, almost in all human life. In a study conducted by WHO said that the mortality rate (mortality), the death rate of the sick (morbidity) and the occurrence of disease epidemics were found in places where hygiene and environmental sanitation were poor, such as a lot of garbage piled up, flies, mosquitoes, poor water conditions bad socioeconomic situation. Therefore, environmental sanitation is very important in order to break the chain of various diseases in the future. (WHO, 2018).

According to (Kementerian Kesehatan, 2014) there are several requirements for sanitation facilities which are said to meet the requirements including meeting environmental health requirements if they meet physiological, psychological needs and can prevent transmission of disease between users, and the surrounding community (Kementerian Kesehatan, 2014). The quality of port sanitation in Indonesia ranks third lowest in ASEAN. Poor sanitation is also shown by data on the high level of water pollution in Indonesia. The impact of the disease caused by poor sanitation includes diarrhea 30%, helminths 25%, skin disease 25%, trachoma 30%, hepatitis A 10% and indirectly affect the occurrence of malnutrition by 5%. Sanitation is one of the important factors that influence human health. The function of the terminal as a place to wait for transportation means to make many activities carried out there, so it is possible to use sanitation facilities such as landfills, toilets, and other facilities. The need for terminal sanitation facilities is greater / more in line with the large number of passengers in the terminal. The importance of meeting the needs of good sanitation in terminals is applied in all countries, including in Indonesia, in public places such as terminals, the Gamalama terminal is no exception.

Considering the many health hazards that can arise due to inadequate terminal sanitation facilities, among others, toilet/bathroom hygiene factors that are not properly maintained are possible as a means of disease transmission, for example, skin diseases, worms and other diseases transmitted by animal vectors. In terms of aesthetic cleanliness that is not considered to cause unpleasant odors, uncomfortable views, and disgust. Once the magnitude of this environmental influence, to improve the health status of environmental health efforts need to be made which is an effort to prevent diseases related to the environment.

The importance of the existence of the terminal in addition to being a public transport infrastructure in which there are many activities, such as the deliv-

ery of goods, and passengers who come and go from one area to another terminal can also be a source of spread of disease for the community. The source of the spread of the disease can be caused by poor terminal sanitation, clean and healthy life behavior of passengers, and lack of public knowledge about PHBS (Clean and Healthy Life Behavior) can accelerate the spread of existing diseases Terminal environment that is not maintained can cause the terminal to become dirty, stuffy, and has the potential to become a breeding ground for various kinds of disease vectors including flies, mice, cockroaches. Therefore, it is necessary to conduct the supervision and control of terminal cleanliness in order to be able to meet the requirements (istiqomah, 2015).

This research is very important to be done to provide suggestions for improving sanitation to the city government in the region of Gamalama terminal

## Methods

The method of this research was Observational descriptive. The sample of this study is the total population Such as environmental health outside the room, building and sanitation, sanitation facilities, comfort and safety, and food health in the Ternate City Gamalama terminal environment. Sampling uses a total sampling technique. The instrument used was the assessment sheet of the Ministry of Health's Republic of Indonesia Department of Health's Disease Prevention and Control. The stages of the study were data collection, then processed manually with stages of editing, tabulation, and then analyzed descriptively by comparing with existing regulations.

## Results And Discussions

Component	Score
Environmental Sanitation	75
Sanitary and Spatial Building	59
Sanitation Facility	103
Comfort and safety	46
Sanitary Food	32
Other Facilities	14
<b>Total</b>	<b>392</b>

Based on observations, it is known that the value of the environmental sanitation component is only 75. The positive conditions that exist in the gamalama terminal when viewed from environmental sanitation only meet the criteria of a green open space with a distance of 20 meters from the terminal building and the distance of the terminal from the location flooding are good enough that is more than 1 km. this is what

then makes the outer health condition only have a value of 75. While the negative condition is that there is a lot of garbage and dust around the terminal so it will be very dangerous for the health of terminal users as said by (Isiwanto, Sudarmadji, Tri Wahyuni, & Suto-mo, 2016) states that household B3 Trash is at risk of safety and health for families, communities, officers/workers, scavengers and garbage collectors. The same thing was also stated by (Hardiatmi, 2011) by saying that the problem of waste in an area includes the high rate of waste generation, low public concern so that it likes to behave in littering, unwillingness to dispose of garbage in a place that has been provided. This bad behavior often causes disasters in the rainy season because of the drainage from garbage clogs, causing flooding (Hardiatmi, 2011).

As a result of the accumulation of waste will become a den for vectors and rodents. One of the health problems that occur is diarrhea and skin disease during the rainy season. The disease starts from a pool of water in a pile of rubbish and then becomes a den for vectors and rodents, causing a person affected by the disease (Elamin et al., 2016).

Several important factors greatly affect waste processing and are considered as obstacles such as the spread and density of population, socio-economic and physical environment characteristics, attitudes, behavior, and culture in society. Congenital vector disease is one of the waste caused by many diseases in Indonesia as a result of the many records that make the reproduction media waste. (Masyhuda, Hestining-sih, & Rahadian, 2017)

With the amount of standing water in terminals will greatly affect the number of vectors in the place as stated by (Suryani, 2018) which says that vectors are related to the environment, affecting the occurrence of dengue outbreaks in urban areas. The research carried out by (Prasetyowati, Fuadzy, & Puji Astuti, 2018) said that *Aedes aegypti* is a vector of DHF which likes to hold water as a medium for its development. Some community services have been done to urge people not to allow stagnant water in their area as done by (Rahmatullah, 2018) in the community service brochure available information related to maximizing air circulation, eliminating standing water that could be a place for mosquitoes to breed, maintain the cleanliness of the house around the environment and cultivate mosquito repellent plants around the house. The bad cleanliness of the parking lot that looks muddy and dirty will be very influential with the occurrence of several diseases as said by (Saleh & Rachim, 2014) which shows that the channel stagnant wastewater will cause diarrhea with a value ( $p\text{-value} = 0,000$ )  $< \alpha$  ( $\alpha = 0,$ ) and based on research conducted by (Sidhi, Raharjo, & Dewan-

ti, 2016) states that there is a relationship significant between channel conditions p wastewater discharge with the occurrence of diarrhea in infants in the Work Area of the Adiwerna Health Center in Tegal Regency with a value of  $p = 0.03$ .

The construction of the parking lot is also very alarming where many cracked and impermeable walls can be a risk for terminal users. The absence of a wall fence around the terminal is also a negative thing found by researchers so that it will have an impact on security risks as said by (Dian Saraswati & Kiswari, 2019) which says that the function of the fence is to protect facilities from potential dangers in other words to improve the security of a place. In the environment outside the terminal, there is also a noise of more than 70 dBA with a temperature of more than 300C so that it will be very disturbing for hearing and not good for human health as well as stated by (Chusna, Huboyo, & Andarani, 2017) which says that Noise that exceeds and meets the threshold value of 85 dB with an 8 hour exposure time causes a hearing loss for the operator of PT. Pura Barutama Paper Mill Unit 5.6.9 is evidenced by the fact that of the 12 workers who performed an audiometric test, 5 workers received exposures exceeding threshold value experiencing deafness and 7 workers receiving less exposure than threshold value experienced deafness of 5 workers and 2 normal-level workers. However, noise is not the only factor that can cause hearing loss.

Based on observations related to the spatial and building health, it is known that the spatial health and building value is 58. The positive condition that exists in the Gamalama terminal can be seen from the spatial and building sanitation, namely the presence of waiting room chairs with clean conditions, where the temperature in the waiting room is still within limits normal ie 18-300C. As for the condition of the floor monitored clean, waterproof and not slippery. Inside the office, there are also office chairs and clean conditions. Negative conditions of sanitary space and buildings are known that the cleanliness of the place of departure starts from rubbish on the scattered floors, and noise is still monitored by more than 70 dBA. The amount of garbage is very dangerous for the health of terminal users as said by (Chusna et al., 2017) there is a relationship between the condition of latrines, conditions of sewerage, conditions of landfills and conditions of healthy homes that do not meet health requirements, impact on the emergence of diseases such as diarrhea, dengue fever, lung tuberculosis, and others. Poor sanitation will also be very bad for health, especially the occurrence of several diseases such as diarrhea which was stated by (Amaliah, 2010) in his study saying that there is a significant relationship between environmental sanitation and

cultural factors with the incidence of diarrhea.

Based on the results of observations related to sanitation facilities, it is known that the value of sanitation facilities is 103. The positive thing obtained is the availability of clean water sourced from the REGIONAL WATER UTILITY COMPANY and routine inspections. The number of toilets has been classified as good with several more than 2. In addition, some landfills are easily reached by garbage transporters. However, the negative thing that is obtained is that the existing sewerage is still discharged directly into sewers and not closed. This is still not in accordance with the requirements of the Republic of Indonesia Decree No. 519 / MENKES / SK / VI / 2008 which requires that the drainage channel must be closed to avoid accidents caused by slipping into sewers and also sewerage channels that have been flooded with water will also become a den of various kinds of vectors. This is also supported by a statement from (Auliya, 2014) which says that there is a relationship between waste disposal facilities and the incidence of leptospirosis. The odds ratio (OR) = 4,600 at intervals of 1,631-12,973, which means that respondents with waste disposal facilities do not qualify have a 4.6 times greater risk of suffering from leptospirosis when compared to respondents with qualified waste disposal facilities. Stagnant water will also be very dangerous for the environment where it is a breeding medium for mosquitoes and other vectors. (Supratman, 2010)

Based on observations related to comfort and safety, it is known to have a value of 46. The positive thing is that the temperature of the waiting room is still in the good category with a temperature of 18-30°C, the lighting is also very good where the lighting conditions are more than 100 lux, and first aid kit facilities are also available but in an empty condition. While the negative thing that is obtained is the humidity of the waiting room which exceeds 40% so that it will have the potential for the spread of heart attack, heat exhaustion, etc. as stated by (Mintarto & Fatahilah, 2019) which says that high air humidity due to high ambient temperature will be very influential with body temperature this is caused by the body's ability to adjust to the temperature of the outside environment. The body can enlarge the skin's pores and can sweat more as a result of the physiological adjustments of the body due to the high humidity and temperature. Basically, the hotter the temperature the more sweat comes out and means more water is needed by the body. If the condition lasts long enough without the addition of body fluids, what happens is likely heat exhaustion, heatstroke, heat asthenia, and even the worst heart attack.

Based on the results of the study found no fire extinguisher so it would be very risky if there was a

fire as stated by (Pradipta, 2016) which said that the danger of fire if a fire occurs in the hospital considering there are many patients in the building along with losses suffered by the hospital. This can make patients panic in the building. public awareness to standardize the construction of high-rise buildings can still be said to be minimal because in circumstances on the ground it is very rarely found and effective emergency stairs only one. This is because emergency stairs 2 can help victims only slightly (narrowly). This is the basis that the fire extinguisher must be available in both open and closed spaces.

Based on observations related to food health, it is known to have a value of 32. The positive thing that is obtained is the presence of food processors and food raw materials are also available but are not free from the reach of insects and are susceptible to dirt. The water bath also meets the requirements. The negative thing that is found is that the storage of food ingredients is not stored in plates made of glass, it is still easy to be exposed to dirt. This is of course very dangerous for food handlers with the risk of disease caused by food contaminated with bacteria as stated by (Awuy, Sumampouw, & Boky, 2018) which says that the health effects of E.coli in both clean water and food can cause the presence of diarrheal disease in all age groups (Sumampouw, Soemarno, Andarini, & Sriwahyuni, 2015). E. coli can also cause cholera, this bacterium secretes LT (thermolabile) or ST (thermostable) toxin. Toxins are released when bacteria attach to the intestinal mucosal epithelial cells. E. coli can also cause urinary tract infections and also other diseases such as pneumonia, meningitis and traveler's diarrhea. In addition, this bacterium is a causative agent of diarrheal disease. infection E. coli can be treated with antibiotics but the results of research from (Awuy et al., 2018) show the ability of resistance from these bacteria to several types of antibiotics. This bacterium can cause death due to toxins produced more when the bacteria die. Research conducted by (Ningsih, 2014) said that at the Location most of the 17 traders did not meet the requirements because the pedestrian location near the highway was located close to the source of pollutants such as food looking for locations at least 100 m from the pollutant source, the condition of the food was in a closed condition. Sanitation facilities in the vicinity of hawker food trade there are clean water facilities from REGIONAL WATER UTILITY COMPANY sources, there are garbage bins that meet the requirements, there are sewerage channels that meet the requirements. Sanitation facilities that do not meet the requirements can lead to a breeding ground for disease vectors that can transmit diseases through food, dust, smoke and other contaminants with a distance of less than 100 m. This allows the

food being sold to be contaminated from the pollutant source. Food vendors should look for a location of at least 100 m from the pollutant source, the condition of the food in closed conditions. Sanitation facilities in the vicinity of hawker food trade there are clean water facilities from REGIONAL WATER UTILITY COMPANY sources, there are garbage bins that meet the requirements, there are sewerage channels that meet the requirements. Sanitation facilities that do not meet the requirements can lead to a breeding ground for disease vectors that can transmit diseases through food. to improve food quality there needs to be good food management following the requirements of hygiene and food sanitation. In the United States 25% of all spread of disease through food, due to infected food processors and poor personal hygiene (Adam, 2011)

### Conclusions

The conclusion of this study is that sanitary facilities in the terminal gamalama are not eligible and can potentially lead to various health and comfort disorders.

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