

THE EVALUATION OF WATER QUALITY AND CONSTRUCTION OF WATER PURIFICATION IN KAMPUNG MELAYU SETTLEMENT IN THE EAST OF JAKARTA

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ABSTRACT

Kampung Melayu is an area in East Jakarta that often experiences flooding. Many RWs were affected. One of the impacts is the problem of providing clean water during floods. This community service will discuss the handling of water sources in mosques which are often used as a means of evacuation during floods. In addition, the mosque also functions as a source of clean water when a flood occurs. This Abdimas provides assistance in procuring water tanks for clean water in addition to the existing tanks. The mosque management and the community welcome this activity and it is hoped that there will be other activities in the future.

KEYWORDS: *clean water sources, mosque, water tanks.*

I. INTRODUCTION

1.1. Partner Problems

Kampung Melayu are often affected by floods. So some RWs were flooded. Although this flood does not take a long time but this right is quite troublesome for residents affected by the flood. If this happens, the residents evacuate to a safe or higher place such as a safe mosque or school building. According to the news quoted from, KOMPAS.com, there are several RTs that become flood violations every rainy season such as RT 013 RW 004 and RT 011 RW 005 Jalan Kebon Pala, Kampung Melayu, East Jakarta. This is because there is no normalization of the Ciliwung River directly adjacent to the area. (10/29/2018). Apart from the absence of normalization, these settlements are often submerged because they have lower plains than other areas. In addition, the absorption of land water is not good here. Previously, a one meter high flood submerged residential areas on Jalan Kebon Pala, Kampung Melayu, East Jakarta, Monday (10/29/2018). Based on Kompas.com monitoring on the location, brownish water submerged residents' housing which is directly adjacent to the Ciliwung River bank. It is known, there are about 70 houses

from two submerged RTs namely RT 013 RW 004 and RT 011 RW 005. This flood is the impact of rain for several hours on Sunday (28/10/2018). (megapolitan,kompas.com) (beritasatu.com)

Next is the flood that just hit the Malay village in April 2019. Tribun video.com reported that the Ciliwung River overflow, 5 RWs in Kampung Melayu Village was affected by flooding (4/26/2019). The five RWs are RWs 4, 5, 6, 7 and 8. For that reason 3 temporary shelter posts were provided by the Kampung Melayu Kelurahan. Flood posts are provided at 3 points, namely Al Ikhwan Mosque RW 8, SDN 01/02 Kampung Melayu and Pusung Kelurahan Kampung Melayu. This post will continue to grow in accordance with the number of refugees.

1.2. Problem Identification and Formulation

Clean water quality has a predetermined standard PERMENKES RI NO. 416/MENKES/PER/IX/1990, which includes water quality is known that clean water has initial characteristics that is, odorless, colorless, tasteless, and not turbid. Issues that will be raised in the public service program this time is how do people get clean water when a flood occurs :

II. METHOD

2.1. Permission from Head of district (Kelurahan Kampung Melayu)

Before making a visit to the location, first make a permit to the village office of Kampung Melayu, which is located at Jalan Pala Jatinegara, East Jakarta. Abdimas' team was accepted by the public department. and in principle a survey can be conducted. Some data are obtained from the kelurahan regarding areas that are frequently flooded and those areas that are most severely affected. besides that, the data on the residence status of the Malay kampong village was obtained.

2.2. Discussion With The Society Leader

Several meetings were held with community leaders such as RW chairman, RT chairman of mosque management and the general public. The discussion began with the aim of the arrival of the team from Mercuri Buana to Kampung. Talking about floods are also discussed. On 1th January the flood reached 3 m in the house of the RW leader. The house of the RW leader who moved his level to the second floor. Concerning clean water, Mr. RW stated that in general the community members have their own well water sources with water conditions that can be used, although not for drinking. There are indeed several water sources that can be used for drinking such as near mosques and in other RWs. The RW Chairman also gave directions that he could contact other

parties if he wanted to visit or collect data. Following are some pictures of the discussion between Abdimas's team from Mercu Buana that took place at the house of the RW leader.



Figure 1. The atmosphere of discussion between the chairman of the abdimas with the RW chairman at the residence of the RW chairman

The team proposes to carry out abdimas at the mosque. so that utilization can be more leverage. Mr Rwpada agreed in principle to conduct community service in the mosque. but when the visit to Pak RW's house was flooded.

2.3. Discussion With The Mosque Organizer

As explained earlier that the purpose of this abdimas is to find a point or location in the Kampung Melayu area affected by flooding where residents have difficulty obtaining clean water. So the team came to this Kampung Melayu to find information about this. But after being directed by the Kampung melayu kelurahan, the team arrived at the RW chairman, RW secretary and Musalla chairman. When discussing this goal, the head of the musalla welcomed the activities of Universitas Mercu Buana by directing the activities to this point or location, namely musalla. The head of the musalla stated that the increase in water capacity for the musalla was the most important because it could increase the number of residents who used the musalla. With this clean water improvement program, it is hoped that community activities in the musalla will be even busier. In the picture below are a number of RW residents / management who attended the meeting with the team from the Universitas Mercu Buana, Jakarta.

The discussion on increasing the capacity of clean water stems from the use of water by the community whether for worship activities such as ablution and istinja, also by community members in general. At present the condition of the existing clean water supply system is provided by one water tank as the main reservoir. Then the pump is also available one. This water-consuming

facility is a faucet for ablution and toilet. besides that is a faucet for community water needs such as for washing, cooking and others.

A photo with the Musolla caretaker and the RW caretaker taking a picture together after a discussion about increasing mosque activities (Figure 2).



Figure 2

2.4. Existing Facilities For Utility System

Currently the facilities available for the musalla utility system are one water tank, one pump engine and a supply and distribution network. Engine dead or alive system has been regulated by an automatic system (radar) so that if the water is reduced, the engine will automatically turn on. The following is an overview of the facilities available.



(a) Water tank



(b) Water pump

Figure 3

Image water tank with a capacity of 250 cm³. which serves as the main storage of pumped water upwards. on the right is a picture of a 200 watt pump for pumping water into the water tank. (Figure 3)



(a) Pipes water



(b) Pump

Figure 4

Figure 4 shows water supply pipes from the ground to be channeled from the bottom up with a diameter of 4 inches. To the right is a pump that is used for emergencies in case of a flood. so this pump removes water from the inundation area to another area.

III RESULTS AND DISCUSSION

3.1 Public Service Execution

Water tank addition will be carried out as soon as the executing staff are available in the field. While this handyman who used to help this musalla is returning to Bogor. But because now in Covid 19, the craftsman hasn't returned yet. However, if the craftsman does not return it will be replaced by another craftsman who can do this job. The purchase of equipment will be done as soon as the craftsman is available. Water tank to be purchased will be 400 to 500 cm³ in size. Regarding the water tank size, this is also done considering the process of transporting it to the location. If the water tank is too large it will be difficult to enter the field / musalla. In addition, the mosque management did not want to accept money, but only goods for the purpose of the community service.

3.2 Evaluation of Public Service

After the implementation of this community service the community will get several benefits, including the first relating to the capacity of water that can be utilized by the community. from tiren whose asak is 250 cm³ it will increase to 750 cm³ due to the addition of this water tank. Second, the water quality will be better because between water tank one and water tank two will be connected with a filter that will filter impurities from water tank 2 to water

tank 1. However, water tank one from which the original filter has been installed or installed to filter impurities from the well. Third, more people will use this water because more water capacity.

IV CONSLUSIONS AND SUGGESTION

4.1 Conclusion

This community service activity has been carried out in Kebon Pala area, Kampung Kampung Melayu sub-district, Jatinegara District, East Jakarta. Activities can run smoothly because they are supported by various parties from the community. From the start of the Kampung Melayu village, Rukun Warga, Rukun Tetangga and the caretaker of the musolla. This activity is related to increasing the capacity of clean water for community facilities, namely musalla. With this increase in water supply capacity, the community can be even more active with the addition of water capacity that can be supplied by this mosque. Community activities have also increased and increased such as worship activities, Koran recitation activities, Koran recitation activities and other community needs. In addition to routine community activities, with the increase in the capacity of this musalla water, if a flood occurs, the community can evacuate themselves in the event of a flood and this musalla can provide more water supply.

4.2 Suggestion

if the well is inadequate in supplying water, it is necessary to further deepen the well. The second is tidying and adding toilet facilities, namely urinal to further enhance the neatness of the toilet.

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