

## MAKING OF PUBLIC TOILETS TO SUPPORT JEMBUL TOURISM VILLAGE- MOJOKOERTO REGENCY

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### ABSTRACT

Environmental Sanitation is an effort to create a healthy environment that can lead to a healthy and clean life. Clean environment can encourage society to apply clean and healthy lifestyle in their own environment. Therefore, society is the key role upon realizing clean and healthy lifestyle. In rural life, society has great hospitality and They do their living side by side among others. The main problem is the lack of awareness about the importance applying a healthy lifestyle, especially in our Jembul Village. Jembul village is preparing to become a tourism village in the future. It has some tourism attractions such as Coban Kabejan waterfall, Rainbow flower garden and a swimming pool located in the top of the hill. But unfortunately Jembul is still a developing village, Some of the tourism attractions are not equipped with toilets. This lack of facilities are not supporting sanitation itself. Jembul village Sanitation condition needs to be identified from the perspective of their own society. Therefore we did a survey in the village by choosing 50 random villagers as the respondents. We set the criteria that the respondent must be at least 17 years old because we think that they are mature enough to give the proper information we need. We interviewed them using a questionnaire consisting some sanitation questions. Due to the survey that had been done before, There are not any toilet at the tourism attractions such as Coban Kabejan for example. Tourism attractions should be facilitated with the adequate toilet to support the environment sanitation. Indirectly, the existence of toilets prevent the pollution at the tourism area. Because of that, We decided to build a toilet in the Coban Kabejan Waterfall. The toilet will use bamboo as the main materials. For the results, we hope that within the existence of this toilet society can improve their healthy and clean lifestyle behavior for a better sanitation.

**Keyword:** Public toilets, desa Jembul, Tourism village

### INTRODUCTION

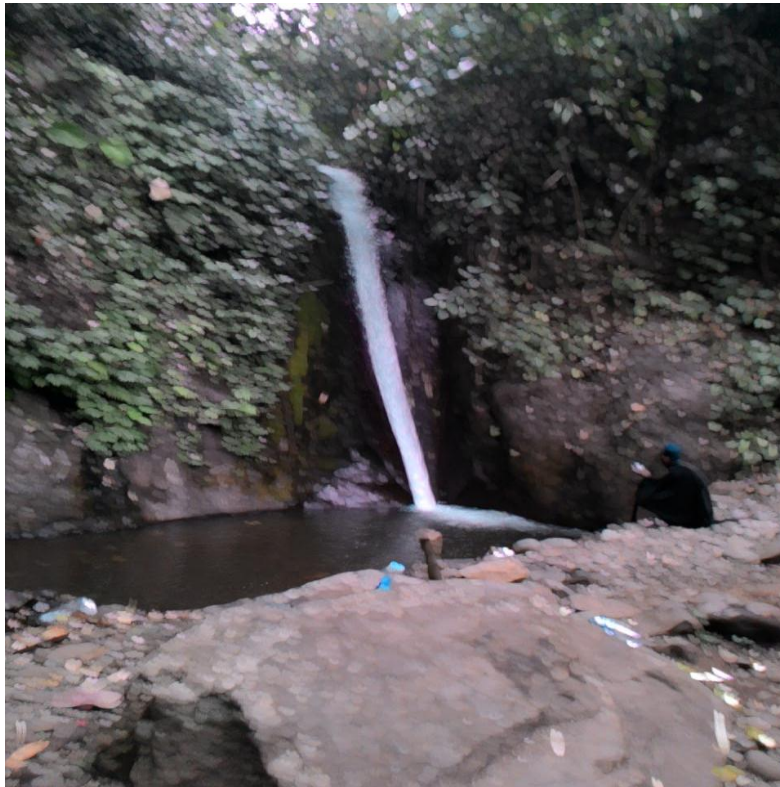
Environmental Sanitation is an effort to create a healthy environment that can lead to a healthy and clean life. Therefore the role of the society is the key to success needed to realize a clean environment. Society can be the key to success in realizing a healthy lifestyle. In rural life the average community of coexistence and hospitality can be the answer in today's life problems. The main problem is the lack of awareness of the community about the importance of healthy living in rural areas, especially in our village of Jembul.

Jembul Village is located in Jatirejo district, Mojokerto regency, within 15 kilometers from center of the district, with an area of 45 hectares, has more or less 15 hectares agricultural land and 25 hectares dry agricultural land that used for avocado, coffee, durian, rambutan, etc. In the north of Jembul village bordering with Rejosari Village, in the south bordering with Manting Village, in the east bordering with Ngembat Village, while in the west bordering with Indonesia state forestry company (Perhutani).

Jembul Village is preparing their village to be a tourism village which is inline with the strategic development planning of Mojokerto Regency [1]. Fortunately, Jembul has many tourism attractions such as; Coban Kabejan waterfall, Rainbow flower garden, and swimming pool that located in the top of the hill. With all those kind of attractions, Jembul has a great potential to become a tourism village. Unfortunately Jembul is a quite undeveloped village.

The tourist attractions in Jembul still not equipped with adequate sanitation / toilet facilities, but we know that sanitation is one of the basic human needs that must be met by everyone in their life. according to World Health

Organization (WHO), things that included in sanitation are the supervision of community drinking water supply, disposal of stool and wastewater, garbage disposal, disease vector, housing condition, food supply and handling, atmospheric conditions and working environment safety. In addition, environmental sanitation can also be interpreted as an activity that aims to improve and maintain environmental hygiene standards that affect human welfare. as we know that a clean and healthy environment can have a good impact on the lives of surrounding communities.



**Fig. 1.** Coban Kabajen Waterfall

Toilet is part of sanitation so it becomes one of the basic human needs that must be fulfilled because toilet is a place for the disposal of feces. thus the presence of toilets is very important for humans, but most people in Indonesia, especially in rural areas do not do the disposal of faeces where it should cause the decline in environmental hygiene and can trigger many diseases that can be caused by dirty toilets, such as diarrhea, respiratory tract infections, typhoid, and urinary tract infections. As it is known that diarrhea is still one of the biggest causes of death in Indonesia, especially in children. so that the cleanliness of the environment should be further improved until it reaches a reasonable standard to avoid the public from various diseases that can be infected. The number of toilets in schools is still not feasible, it happens because the people of Indonesia still ignore the importance of maintaining the cleanliness of the toilet.

Toilets should have clean water as well as good water installation, adequate latrine, ventilation and good lighting, which become our reference to make a proper toilet at tourist sites. Our toilet are located at both Jembul Village (Coban Kabejan waterfall), where this tourist destination still has no place to dispose of. The purpose of this project is to make the tourists and the surrounding community who will visit the place does not need to search for toilets away or to do their personal business at tourist sites. In addition, in one of our toilets, we use bamboo materials on the grounds that our building is made in accordance with one aspect of building in civil, that is green and sustainable, without reducing the function of our toilet.

## **METHODOLOGY**

The project aims to identify the condition of environmental sanitation in the tourism area of the village, the type of this research is analytic descriptive study. The research sample was 50 respondents consisting of people in the

village, besides that we also included the criteria must be aged => 17 years and willing to be a respondent. Research time occurred in July to August. respondents were taken by simple random sampling technique in the community in the village.

Data collection techniques were carried out using interviews with questionnaires, observation and documentation studies. the questionnaire form was a closed questionnaire with several items in the questionnaire taken based on the characteristics of the respondents, the provision of clean water and ownership of the latrines, the condition of the latrines and the distance of the toilet with the well. the number of questions in this questionnaire is ... questions with condition 1 are good, 2 to 3 are medium and 4 are bad. Our respondent's data is processed using descriptive statistics in the form of tables with interpretations and judgments based on what they are then described in narrative

we use descriptive research methods because based on the swot analysis we have made and we think that if we use the interview method through the media the questionnaire will be more useful because we can know firsthand what happened in the real village. Next we explain the swot analysis we have made.

	<b>STRENGTHS (S)</b> 1. Concept of Tourism Village has been developed 2. Well community work 3. Fertile soil produces some fruits & vegetables	<b>WEAKNESSES (W)</b> 1. Lack of education of the society 2. Poor access to the tourism place 3. Have no reservoir from the water source 4. Lack of teachers resource for the elementary school
<b>OPPORTUNITIES (O)</b> 1. External financial support 2. Expertise supervision civil engineer department of PCU 3. Resources support from COP 4. Have been known by some tourist	<b>Opportunity-Strength (OS) Strategies</b> 1. Improvement of tourism spots and facility (S1,S2,O1, O3,O4) 2. Improvement in local farm and plantation products (S3,O3)	<b>Opportunity-Weakness (OW) Strategies</b> 1. Improvement of access track to the tourism spots (W2,O1,O2,O3) 2. Train the community about how to interact with tourist (W1,O3)
<b>THREATS (T)</b> 1. Limited coverage of mobile phone & internet signal 2. Adjacent villages are also have tourism spots / attraction 3. Huge amount of garbage solid waste	<b>Threat-Strength (TS) Strategies</b> 1. Improve solid waste processing program (S2,T3)	<b>Threat-Weakness (TW) Strategies</b> 1. Train the community new promotion strategy of their tourism spots (W1,T1,T2)

**Table 1.** Characteristic of the Respondent

No	Age	Frequency
1	17 - 30 years old	15
2	31- 39 years old	13
3	40 - 49 years old	13
4	more than 50 years old	11
No	Sex	Frequency
1	Men	20
2	Women	32

If seen from the results of questionnaires, respondents in the village of jembul mostly have more than 40 years of age as much as 46.15% and the number of female respondents has more than men and some cannot read so it can be concluded that education for the whole community has low education so that there are many deficiencies in sanitation in the tourism village

**Table 2.** Clean Water Supply

No	What facilities or tools are used to obtain clean water?	Frequency
1	Well	17
2	River	0
3	Rainwater	0
4	Waterfall	11
5	Another answers	24
No	Whose is it?	Frequency
1	Self own	9
2	Government	4
3	Neighbors	0
4	Together's own	39
No	When the facilities or tools were built?	in 2000
No	How is the physical quality of drinking water that is often consumed?	Frequency
1	Murky	0
2	Stained	0
3	Have a taste	0
4	Smelly	0
5	Foamy	0
6	Clear	52
No	What kind of water storage facilities that is in your home?	Frequency
1	Bak	18
2	Used barrels	0
3	Bucket or similar	21
4	Fiber with >1000 liters of capacity	5
5	Another answers	8
No	How do you process the water that will be consumed?	Frequency
1	Given chemicals	0
2	Cooked	47
3	Drink directly	5
4	Filtered	0
No	Where is the waste water reservoir (bathroom / kitchen / washing)?	Frequency
1	Closed reservoir in the yard	18
2	Open reservoir in the yard	4
3	Without reservoir (in the yard)	21
4	Directly to river	9
No	Do you have a bathroom?	Frequency
1	Yes	51
2	No	1

Table 3	Toilet	
No	Do you defecate in the toilet / toilet?	Frequency
1	Yes	46
2	No	6
No	If not, where do you usually defecate?	Frequency
1	Yard or garden	1
2	Rice fields	0
3	Down the river	5
No	Do children also defecate on latrines?	Frequency
1	Yes	29
2	No	23
No	Bila tidak, dimana biasanya buang air besar?	Frequency
1	Yard or garden	8
2	Rice fields	0
3	Down the river	15
No	Why don't you have latrines?	Frequency
1	Had become a habit	0
2	Easy to do or practical	0
3	Not able to finance its manufacture	35
4	Another answers	17
No	Are there sources of pollution around the water source? (waste water / cubluk / septic tank / garbage), if there is any, how far is it from the water source?	Frequency
1	Yes, 5 meter	3
2	Yes, 10 meter	0
3	Yes, >10 meter	4
4	No	45
No	How is the sewerage from the bathroom / kitchen / washing?	Frequency
1	Open channel	13
2	Closed channel	39
3	No channel	0
No	What kind of faeces disposal facility in your home?	Frequency
1	Toilet	
2	Jamban	22
3	Public toilet	26
4	There is no	4
No	Do you suggest that your family need to wash their hands using soap before eating or holding food ingredients?	Frequency
1	Yes, I strongly recommend	46
2	Just wash their hands with clean water	6
3	Never	0

From the research results obtained from the respondents who have filled out this questionnaire, we can conclude that the water supply in the village is very sufficient for all villagers, besides that the distance of the residents to get water is fairly close and the quality of water in this village is 100 % clear and 86.53% of respondents said that around the water source there was no pollution. This means that in terms of providing clean water all respondents as much as 100% have received clean water and have met the physical quality standards of water that is colorless, tasteless, and odorless

Furthermore, if we look at the ownership variables of the latrine, we can know that as many as 42.30% of the residents have their own latrines and as much as 50% of the villagers use public toilets to dispose of faeces / feces from the data obtained from the respondents, we can conclude that the community in the area Jembul village tourism has used toilets to dispose of feces and only 7.7% of residents still do not have toilets so they usually use their fields / gardens and rivers as a place to dispose of their faeces, only a small percentage do not use the toilet but can have an adverse impact good for tourist areas in the jembul village.

## PROJECT IMPLEMENTATION

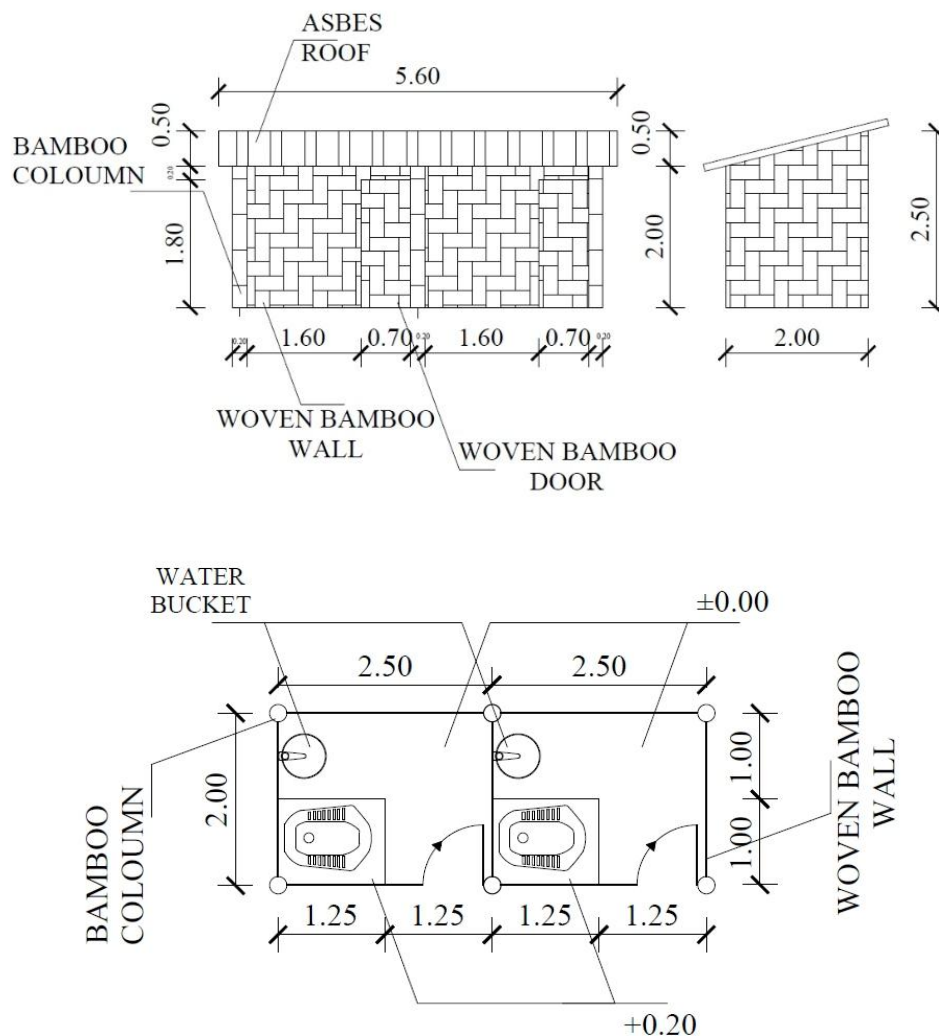
Education is the main factor that triggers a person's knowledge and influences someone's attitude that can influence their decisions, according to the data we have, many villagers have low education so that environmental problems are not too good due to lack of information obtained by citizens to make the village environment an environment healthy. Based on that, we can conclude that the lower the level of education, the lower the sanitation health in the village tourism.

Village environmental care is one of the aspects that play an important role in making the guesthouse stay a tourist destination visited by domestic tourists and foreign tourists so that the problem must be addressed by the management of tourist attractions and villagers so that sanitation problems around tourist attractions can be maintained properly. general, there are five pillars in the sanitation program that must be held namely stop open

defecation (SBS), hand washing with soap (CTPS), management of drinking water and household food (PAMMRT), household waste management (PSRT), and security household liquid waste (PLC-RT).

In carrying out community service [2] in the village, we decided to make the toilet in the area of waterfall Coban Kabejan. With the existence of toilets in the tourist area of the Waterfall Coban Kabejan, we hope sanitation can be improved. We decided to build a toilet with Bamboo material as the main material. For foundation we use shallow stone foundation and for roof we use galvalume material. For septic tanks, it is built with a 1m deep stone structure into the ground. For stone material for foundation and gravel for cast needs, it is taken directly from the location around the waterfall and this is a positive thing for our activities. For materials such as cement and sand we still buy from building stores near the village. One of the obstacles we have is access to the road to the waterfall which is only a trail. So that the purchased materials such as cement and sand are carried with sacks using bicycles.

Following is the initial picture of our design planning:







BEFORE (initial condition)



AFTER CONSTRUCTION

## CONCLUSIONS AND RECOMMENDATIONS

A unified determination and holistic thinking between students of the Community Outreach Program and the Jembul village community on sanitation urgency as a result of creating a toilet development. Toilets become a parameter of health quality in society. In managing the Tri Dharma of Higher Education by working collectively collegially with the village community, it can facilitate the community's need for sanitation of the toilet itself. The construction of toilets in two tourist areas (waterfalls and hills) is projected to increase the attractiveness of visitors given the cleanliness potential displayed by the village.

Diarrhea, respiratory infections, typhus, and urinary tract infections are diseases that arise because of choosing a lifestyle that is bad (rural) sanitation. Therefore, we need to always apply a regular lifestyle and a healthy lifestyle. Through this paper, the author wants to give some suggestions to community; must increase knowledge of the prevention of various diseases with healthy lifestyles, such as reading knowledge books / magazines about the importance of health, getting used to throwing trash in its place and always maintaining the cleanliness of the water tank and the floor of the toilet.

## REFERENCES

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