

Evaluation of Open Defecation Free Program Policy in Tambak Osowilangun Village Surabaya City

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Abstract

This study evaluates the implementation of the Open Defecation Free (ODF) Program in Tambak Osowilangun Village, Surabaya City using a qualitative approach with in-depth interviews, documentation, and observation. The findings of the study show that the program has been successful in increasing access to proper sanitation facilities and reducing the incidence of sanitation-related diseases such as diarrhea. Significant challenges still exist, especially related to uneven changes in community behavior and suboptimal maintenance of sanitation facilities. The success of the program is supported by the active involvement of local communities and policy support from local governments, but is hampered by factors such as limited infrastructure in remote areas and cultural resistance to changes in sanitation practices. The limitations of this study include geographic coverage limited to a single village and a qualitative approach that may not cover the variation of experiences across the regions affected by the ODF program.

Keywords: Evaluation, Public Policy, Sanitation.

1. Introduction

Clean and safe sanitation is one of the basic human needs that has a significant impact on the health, welfare, and quality of life of the community (Saleem et al., 2019). Tambak Osowilangun Village in Surabaya City is one of the areas that is experiencing challenges in an effort to achieve Open Defecation Free (ODF) conditions or free from the practice of open defecation. This ODF program aims to eliminate the practice of open defecation as one of the efforts to improve environmental sanitation and public health. Poor sanitation and the practice of open defecation can lead to environmental contamination the spread of infectious diseases such as diarrhea, cholera, and parasitic infections, which contribute to high morbidity and mortality rates, especially among children (McAllister et al., 2019). At the global level, proper sanitation and access to adequate sanitation facilities are part of the Sustainable Development Goals (SDGs) promulgated by the United Nations (UN) (Totin Vodounon et al., 2022). In particular, target 6.2 of SDG 6 emphasizes the importance of universal access to adequate and safe sanitation and adequate hygiene practices by 2030, with special attention to the needs of women, children and other vulnerable groups.

The object of this research, namely Tambak Osowilangun Village, has several empirical problems that underlie the importance of this theme: First, based on data from the Surabaya City Health Office, this area still has a significant percentage of households who do not have access to adequate sanitation facilities, causing a high incidence of sanitation-related diseases. Second, the limited sanitation infrastructure in the region is also influenced by economic and social factors, including low levels of public education on the importance of clean sanitation, as well as a lack of public awareness and participation in sanitation programs that have been running. Third, geographical challenges and environmental conditions in Tambak Osowilangun Village also play a role in complicating efforts to increase access to proper sanitation facilities. Furthermore, the data on sanitation risk areas will be reviewed shown on Table 1.

It is important to understand that the identification and management of areas with high sanitation risks is crucial to maintaining public health. Sanitation-risk areas are places where hygiene and sanitation are inadequate, which can lead to the spread of disease (Murtaza et al., 2021). Understanding this information can be used to take steps to ensure a healthier and safer environment for all. Next, the table of existing service gaps is presented on Table 2.

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Table 1. Sanitation Risk Areas

Component	Year				
	2022	2023	2024	2025	2026
Domestic Wastewater					
Secure Access	1.40%	3.90%	6.40%	8.90%	11.50%
Individual Eligible Access (excluding secure)	95.50%	95.50%	95.50%	95.50%	88.50%
Decent Access Together	1.90%	3.40%	4.90%	6.40%	7.60%
Access Not Yet Feasible	3.40%	2.90%	2.40%	1.90%	0%
Closed Bowel Movements	0%				0%
Defecation in the Open	1.13%	0.88%	0.63%	0.38%	0%
Waste					
Waste Handling	93.50%	93.50%	93.50%	93.50%	71.82%
Waste Reduction	4.80%	12.29%	19.79%	27.79%	35.29%
Unmanaged Waste	1.74%	1.20%	0.80%	0.30%	0%

Source: (Dinkes, 2022)

Table 2. Existing Service Gap

No	Sistem	Scope of Existing Services (%)	Service Scope Target	
			Short-term	Medium Term
1	Defecation in the Open	1.13%	0%	0%
2	Defecation in Closed Places			
3	Access Not Yet Feasible	3.40%	0%	0%
4	Eligible Access	95.50%	88.50%	80.00%
5	Secure Access	1.40%	11.50%	20.00%

Source: (Dinkes, 2022)

Based on Table 2, there is a gap (GAP) of 18.6% in achieving safe sanitation access, while decent sanitation access has met the set target. This eligible access includes individual eligible access and shared eligible access. The target for individual eligible access is 80.9%, while the current achievement is 92.2%. To achieve the target of safe sanitation access, it is necessary to optimize sanitation programs and add infrastructure periodically, especially in areas with high population density but low public awareness. In areas where there is still available land, the construction of a Wastewater Treatment Plant (WWTP) can be a solution to overcome sanitation problems. As for densely populated areas and do not have land, services can be prioritized through the Centralized Domestic Wastewater Management System (SPALDT).

Addressing these issues requires a holistic approach involving active community participation, increased education and awareness of the importance of sanitation, and improved sanitation infrastructure supported by targeted government policies. Evaluation of the implementation of the ODF program in Tambak Osowilangun Village is very important to understand the successes and obstacles faced in achieving a clean and healthy environment, as well as to develop more effective strategies in the future. Furthermore, the research location of Osowilangun Village is administratively including the Surabaya City area. Empirical data shows that of the 154 urban villages in the city of Surabaya, around 128 urban villages or 83.12 percent have the status of open defecation free (ODF) (Dinkes, 2022).

Research on sanitation and the implementation of the Open Defecation Free (ODF) program has been the focus of attention of many studies, both at the national and international levels (Trimmer et al., 2022). However, there are differences of opinion and findings among researchers regarding the factors that affect the success of ODF programs and their impact on public health. Previous studies by Purnaweni (2018) emphasized the importance of community participation in the success of ODF programs. They argue that sanitation programs that involve the community directly in planning and implementation are more likely to be successful, because communities have a sense of ownership and responsibility for sanitation facilities. The study also shows that a participatory approach can increase awareness about good hygiene practices and reduce resistance to behavior change. On the other hand, research by Machete & Marques (2021) highlights the important role of government intervention and the availability of funds for the development of sanitation infrastructure. In addition, several studies also found that the success of ODF programs is greatly influenced by social and cultural factors (Alhassan & Anyarayer, 2018; Munawati et al., 2020). For example, a study by Busienei et al., (2019) shows that social norms and habits that have been ingrained in society can

be a major obstacle in changing behaviors related to open defecation. They emphasized that sanitation programs need to be adapted to the local cultural context and require sufficient time to change people's behavior in a sustainable manner.

This study is interesting because it offers a new perspective by combining various approaches that have been discussed in previous studies into a holistic evaluation framework. The focus on Tambak Osowilangun Village in the city of Surabaya provides a specific empirical context and allows for an in-depth analysis of unique local challenges. Thus, this study not only considers the role of community participation and government intervention but also examines the social and cultural aspects that affect the implementation of ODF programs in the region. This research is important because it identifies gaps in previous research that often focus on one specific aspect, such as infrastructure or community participation. By evaluating the implementation of the ODF program from various perspectives, this study is expected to provide more comprehensive insights and more effective solutions to improve sanitation in Tambak Osowilangun Village. Interestingly, this study also considers SDGs indicators in its analysis, which have rarely been discussed in depth in previous studies related to sanitation. The study not only aims to evaluate the success of ODF programs at the local level but also contributes to the achievement of global goals in terms of access to safe and adequate sanitation for all. Furthermore, the formulation of this research problem is: 1) How to evaluate the open defecation free program in Tambak Osowilangun Village, Surabaya City? 2) What are the supporting factors and inhibiting factors for the implementation of the open defecation free program in Tambak Osowilangun Village, Surabaya City?

2. Literature Review

Citations Experts such as Zhou et al., (2018) emphasized the importance of large investments in sanitation infrastructure, including the construction of public toilets and effective waste management systems. They argue that without adequate infrastructure, efforts to eliminate the practice of open defecation will not be sustainable. Previous studies have found that good infrastructure can significantly reduce the rate of waterborne diseases, such as diarrhea, which is one of the leading causes of death in developing countries. On the other hand Dodds et al., (2018) argues that a successful ODF program requires a more focused approach to community empowerment. They argue that long-term behavioural change can only be achieved by increasing public awareness and active participation in the programme. The Community-Led Total Sanitation (CLTS) program is an example of this approach, where communities are encouraged to take their own action to achieve proper sanitation, without relying on external assistance. This approach prioritizes behavior change and community mobilization over the development of expensive sanitation infrastructure.

Studies by Al-Dmour et al., (2022) show that well-designed behavior change campaigns such as sanitation education campaigns through mass media and counseling, can effectively reduce the practice of open defecation. They argue that behaviour-based interventions are less expensive and can be widely applied in a variety of social and cultural contexts. However Wendel (2020) criticizes approaches that focus too much on behaviour change on the grounds that they often do not pay enough attention to the infrastructure and technology needs needed to support sustainable behaviour change. They suggest that behavioural change should be accompanied by easy and consistent access to proper sanitation facilities to ensure sustainability.

2.1 Policy Evaluation Theory

Policy evaluation is a systematic process used to assess the effectiveness, efficiency, relevance, and impact of a public policy (Birkland, 2019; Rossi et al., 2018). Policy evaluation aims to determine whether the policies that have been implemented are achieving the goals that have been set, and if not, identify the causes and propose improvements. Policy evaluation theory provides a framework for analyzing policy successes and failures, which is very relevant in the context of the implementation of the Open Defecation Free (ODF) program in Tambak Osowilangun Village, Surabaya City. One of the main experts in policy evaluation, stated that policy evaluation must consider various dimensions, including the implementation process, policy context, and short-term and long-term outcomes (Schmidt & Sewerin, 2019). A good evaluation not only assesses whether policy objectives have been achieved, but also understands the processes that led to those outcomes (McDavid et al., 2018). In the context of sanitation, this means evaluating how ODF programs are implemented, what factors influence implementation, and how policy outcomes can be sustained in the long term.

Magro & Wilson (2019) put forward an empowerment evaluation approach, where the purpose of the evaluation is not only to assess the success or failure of the policy, but also to empower stakeholders, including the community

involved in the program, to identify problems, design solutions, and take necessary actions. In the context of sanitation in Tambak Osowilangun Village, this approach is relevant to encourage active community participation in improving sanitation conditions and achieving ODF status. In the context of sanitation, performance evaluation can be used to assess the effectiveness of the ODF program in Tambak Osowilangun Village based on indicators such as: 1) Measuring the percentage of households that have access to decent and adequate sanitation facilities; 2) Assessing changes in community behavior in terms of toilet use and open defecation practices; 3) Assess changes in the incidence of sanitation-related diseases, such as diarrhoea and other infectious diseases; and 4) Assess the ability of the program to maintain ODF status in the long term without excessive reliance on external assistance.

Policy and performance evaluation provides a data-driven approach to assessing the effectiveness of sanitation programs, allowing policymakers to make more informed and informed decisions. Evaluation often relies on available data, which may not be complete or accurate (Congalton & Green, 2019). In some areas, data limitations can hinder comprehensive evaluations. Evaluation results that reveal program failures or weaknesses can generate resistance from stakeholders who feel threatened or discredited by the findings.

2.2 Behavior Change Theory

Behavior Change Theory is a set of concepts used to understand, explain, and predict changes in human behavior (Ajzen, 2020; Michie et al., 2018). This theory is relevant in a variety of contexts, including public health, where behavior change is often necessary to improve health outcomes. In the context of sanitation, behavior change is a critical aspect to achieve Open Defecation Free (ODF) status, because the practice of open defecation is greatly influenced by habits, social norms, and cultural beliefs. Keshavarzi et al., (2021) developed a Stages of Change Model that identifies several stages that individuals go through when adopting new behaviors: pre-thinking, thinking, preparation, action, and maintenance. In the context of sanitation, this model can be used to understand where communities are in the process of adopting proper toilet habits, as well as develop interventions that are appropriate to their stage of readiness to change.

Rumjaun & Narod (2020) put forward the social learning theory which emphasizes that behavior change occurs through observation and imitation of other people's behavior, and is reinforced by positive or negative experiences. In the context of sanitation, this means that individuals may be more likely to adopt good sanitation behaviors if they see their community leaders or neighbors doing it and see the immediate benefits. (Conner, 2020) introduces the theory of planned behavior which states that the intention to perform a behavior is the main predictor of that behavior. This intention is influenced by the individual's attitude towards behavior, subjective norms, and perception of behavioral control. In the context of sanitation, the intention to use the toilet may be influenced by public perceptions of the importance of hygiene, support from community leaders, and the availability of sanitation facilities.

Behavior change theory is particularly relevant in the context of sanitation because of the many sanitation challenges associated with individual and community behavioural practices (Novotný et al., 2018; Venkataramanan et al., 2018). To achieve ODF status, not only the infrastructure is needed, but also a fundamental change in people's habits and mindsets regarding the practice of open defecation. The change stage model helps design interventions that are appropriate to the readiness of the community to adopt better sanitation behaviors (Cookey et al., 2020). For example, for people who are still in the pre-thinking stage, education and awareness campaigns may be more effective than providing direct sanitation facilities. In the context of efforts to improve sanitation through the Open Defecation Free (ODF) program, there is significant debate among experts and practitioners regarding the effectiveness of behavior change approaches. This approach, which focuses on changing people's habits and mindsets regarding the practice of open defecation, has strong supporters as well as critics who question its reliability.

In this context, sanitation programs that involve community leaders as role models can be very effective. They also highlighted the importance of providing incentives for communities that adhere to good sanitation practices as a way to reinforce desired behavioural change. However, those who are skeptical or critical of the behavior change approach highlight some significant limitations of this theory. They argue that changing human behavior is not easy and often takes a very long time to see the impact. In situations where sanitation issues are urgent and have serious health consequences, relying solely on behavioural change can be ineffective. Sheikh (2018) for example, criticizes this approach by stating that overemphasizing behavioural change without being supported by adequate infrastructure and technological solutions can result in the failure of sanitation programmes. They argue that even if people are aware of the importance of using toilets, they will still not change their behavior if the available toilets are not feasible or difficult to access. In addition, criticism of this approach also suggests that structural and environmental factors are often overlooked in behavior change efforts (Beauchamp et al., 2019; Lange & Dewitte, 2019). Although behavioral theories seek to understand individual attitudes and intentions, they may not fully consider resource limitations,

economic conditions, and deep-rooted social norms that can hinder the adoption of better sanitary behaviors (Biswas et al., 2024). For example in a community where the practice of open defecation has been the social norm for many years, the desired behavior change may require major changes in social and economic structures that go beyond the capabilities of sanitation programs.

3. Research Method

This study uses a qualitative approach with the aim of understanding in depth the implementation of the Open Defecation Free (ODF) program in Tambak Osowilangun Village, Surabaya City. This approach was chosen because it allows researchers to explore the experiences, views, and perceptions of various stakeholders related to ODF programs that cannot be quantitatively measured. The in-depth interview method was used to collect data from research informants consisting of local government officials, public health officials, community leaders, and residents directly involved in this sanitation program (Wasiaturrahma et al., 2024). The selection of informants is based on their involvement in the ODF program, their knowledge of sanitation, and their ability to provide rich insight into the successes and challenges faced in the implementation of the program.

Data collection techniques are carried out through three main methods: 1) In-depth interviews; 2) Documentation; and 3) Observation. In-depth interviews allow researchers to obtain detailed and personalized information from informants regarding their views on ODF programs, including motivations, barriers, and perceived impacts. Documentation involves collecting data from a variety of written sources such as program reports, meeting notes, and relevant related policies. This technique provides additional context and enriches understanding of the implementation of ODF programs. Observation was used to see firsthand the sanitary conditions in the field, community behavior in the use of sanitation facilities, and social interactions related to the ODF program. These observations help validate the data obtained through interviews and documentation. Furthermore, the following research informants will be presented on Table 3.

Table 3. Research Informant

No	Informant's Name	Position
1	KU	Village Head
2	BA	Head of Welfare and Economy
3	TO	Chairman of RW
4	SU	Chairman of RT
5	ABM	Great Surabaya Cadre Member
6	KA	Great Surabaya Cadre Member
7	DA	Great Surabaya Cadre Member
8	NS	General Public
9	FTR	General Public
10	FL	General Public

Data analysis was carried out using data triangulation to improve the validity and reliability of the research findings. Data triangulation involves comparing and verifying information obtained from various data collection techniques as well as from various sources of informants. This process helps identify conformities and differences in the data, so that it can provide a more comprehensive and in-depth picture of the implementation of the ODF program in Tambak Osowilangun Village. Through triangulation, researchers can ensure that the interpretation of the data made truly reflects the reality on the ground and is not distorted by bias from a single data source.

4. Results and Discussion

Performance evaluations focus on assessing several key performance indicators, such as increased access to proper sanitation facilities, changes in community behavior in open defecation practices, and impacts on local public health. Based on the performance evaluation theory, there are several dimensions used to assess the effectiveness of the ODF program in Tambak Osowilangun: First, the effectiveness dimension which measures the extent to which the ODF program achieves its goal of eliminating the practice of open defecation in Tambak Osowilangun Village. An evaluation of the effectiveness of this program shows that the improvement of sanitation facilities, such as the construction of public toilets and increased access to sanitation facilities in households, has had a positive impact on changing people's behavior.

Data from in-depth observations and interviews show that the majority of households now have access to proper toilets, and there is an increase in public awareness of the importance of clean sanitation. However, there are still some community groups that maintain old practices due to cultural reasons or economic limitations. This shows that while the effectiveness of the program is quite high in terms of providing facilities, additional interventions are still needed to change the behavior of the entire community. Furthermore, the results of an interview with KU as the Village Head will be reviewed which discusses the dimensions of effectiveness as follows:

"This program has succeeded in increasing household access to proper toilets. We have seen a significant increase in the number of households having access to toilets, from previously only around 40% to almost 90%. Budget support from the city government and cooperation with non-governmental organizations (NGOs) play an important role in achieving this increase. However, the official also acknowledged that there are still some areas in the sub-district that have not been fully covered, especially in hard-to-reach areas." (Interview conducted in May 2024)

The results of the next interview that have been conducted to BA as the Head of Welfare and Economy are as follows:

"The ODF program has succeeded in raising public awareness about the importance of good sanitation. People are now more aware of the dangers of open defecation and the benefits of using toilets. Despite increased awareness, desired behavioural change has not been fully achieved across all groups of society." (Interview conducted in May 2024)

Furthermore, the results of the interview that has been conducted by the researcher with TP as the Chairman of the local RW explained as follows:

"Some residents are still reluctant to use the toilets provided for cultural reasons and old habits. "Of course we recognise that to improve programme effectiveness, more community-based interventions designed to change behaviour are needed, not just the provision of infrastructure." (Interview conducted in May 2024)

Based on the perspective of local residents, researchers found that there are still many residents who do not know the details of the program being run. The local community lacks awareness about sanitary hygiene. Especially those living in areas that have received new sanitation facilities, views on the effectiveness of the program also vary. Some residents find this program very helpful and has brought positive changes in their quality of life. This shows that despite significant progress in providing sanitation infrastructure, the effectiveness of the program is still hampered by operational and maintenance issues.

Second, the efficiency dimension in performance evaluation looks at the extent to which ODF programs are implemented by maximizing available resources. In this case, the program in Tambak Osowilangun shows varying efficiency. The use of funds allocated for the development of sanitation infrastructure is generally on target, but there have been reports of delays in the distribution of materials and project completion that hamper the effectiveness of the use of the budget. Interviews with local officials indicated that limited coordination between various stakeholders, such as health offices, local governments, and NGOs, had reduced the efficiency of the program. Improvements in project management and improved coordination across sectors are recommended to improve the efficiency of future programs. The results of the interview related to the efficiency dimension conducted to SU as the Chairman of the local RT, namely:

"The funds allocated are sufficient to build basic sanitation facilities and hold awareness campaigns in the community. However, challenges arise in terms of the distribution of these funds to various sub-programs and material procurement. Several public toilet construction projects have reportedly experienced delays due to problems with the procurement of building materials and delays in payment to contractors." (Interview conducted in June 2024)

Furthermore, the interview conducted to AB as a Member of the Great Surabaya Cadre explained related to efficiency as follows:

"Although the available funds are sufficient to support various activities, such as counseling and facility development, implementation in the field is often poorly coordinated. There are many overlapping activities, for example, several times counseling is carried out by various NGOs in the same place without clear coordination. This leads to a waste of time and resources." (Interview conducted in June 2024)

Researchers observe that below the level of efficiency still needs to be at the level of sustainability considering that there is still a lot of overlap in policies. Interview with KA as a Member of the Great Surabaya Cadre as follows:

"This program has involved many volunteers and the community in the development and extension process, which should be a great asset for efficiency. Sometimes, we just sit back and wait for further instructions, when there are a lot of things we can do if there is clear guidance." (Interview conducted in July 2024)

Third, the impact dimension that assesses the long-term impact of ODF programs on public health and the environment. The results of field observations and interviews show that the program has had a positive impact in reducing the incidence of diseases associated with poor sanitation, such as diarrhoea and skin infections. The program has also succeeded in improving the quality of the local environment by reducing water and soil contamination. However, the impact evaluation also revealed that to achieve a broader and sustainable impact, sustained efforts are needed to ensure that behavioural change remains consistent and that the infrastructure built continues to be properly maintained by communities and local governments. Furthermore, the impact dimension of the interview conducted to the DA as a Member of the Great Surabaya Cadre is reviewed as follows:

"The decrease in the incidence of diseases related to poor sanitation, such as diarrhea and skin infections, after the implementation of this program. We have seen a nearly 40% reduction in diarrhoea cases since the programme began, and this is a clear indicator that the ODF programme is having a positive impact on public health." (Interview conducted in July 2024)

The reduction in diarrhoea cases is very important for the development of local sanitation, this can be interpreted as having achieved several main goals of developing proper sanitation. Furthermore, the results of the interviews conducted with NS as the local general public are as follows:

"Increased access to proper sanitation facilities and intensive awareness campaigns have changed public perceptions of the importance of hygiene and sanitation. Some residents still cling to their old practices for reasons of convenience or long-established habits. Although they recognize the health benefits of using the toilet, they have not fully committed to changing their behavior." (Interview conducted in July 2024)

The results of the interviews show that the ODF Program in Tambak Osowilangun Village has had a significant impact on public health and environmental conditions. Despite declining rates of sanitation-related diseases and increased public awareness of the importance of hygiene, challenges remain in terms of achieving sustainable behaviour change across communities and ensuring that all citizens, including those in remote areas, benefit equally.

Fourth, the sustainability dimension that evaluates the ability of ODF programs to sustain the results achieved in the long term. An assessment of the sustainability of the program in Tambak Osowilangun shows that despite significant improvements in access and use of sanitation facilities, the sustainability of the program still faces challenges. Some informants noted that the maintenance of sanitation facilities is often neglected after the initial phase of the program ends. In addition, without ongoing supervision and support from local governments, there is a risk that some households may revert to the practice of open defecation. Therefore, the sustainability of the program requires a continuous commitment from the government and the community to maintain the sanitation standards that have been achieved. Based on the results of interviews conducted with FTR as the local general public as follows:

"The initial success of this program is encouraging, but to ensure that this practice continues, we need stronger policy support and consistent budget allocation. Without a continuous maintenance system, such as community training for facility maintenance or the establishment of sanitation committees, there is a risk that the toilets that have already been built could be damaged and no longer in use." (Interview conducted in June 2024)

The results of the interview were also stated by FL as the general public as follows:

"We are seeing some households starting to return to old practices due to a lack of consistent access to clean water and a lack of supervision. To achieve sustainability, it is necessary to strengthen monitoring and evaluation systems at the community level to ensure that sanitation facilities remain used correctly and repaired if damaged." (Interview conducted in July 2024)

The results of the interviews indicated that although the ODF Program in Tambak Osowilangun Village has achieved some initial success in terms of improving sanitation access and behavior change, sustainability challenges remain significant. The sustainability of these programs relies heavily on the continued support of all stakeholders, including the government, the community, and the private sector. Additional strategies are needed to improve facility

maintenance, strengthen sanitation education, and build community capacity to ensure that the changes achieved are not only temporary but can be sustained in the long term. Overall, the application of performance evaluation theory in the context of the ODF Program in Tambak Osowilangun Village provides valuable insights into the effectiveness, efficiency, impact, and sustainability of the program. These findings show that while the program has managed to achieve some important goals, there is still room for improvement in terms of coordination, resource management, and long-term sustainability. The recommendations resulting from this evaluation can help strengthen ODF programs and ensure that the benefits can be felt by the entire community over a longer period of time.

4.1 Evaluation of the Open Defecation Free Program

Based on interviews with local government officials and health workers, it can be seen that the program has succeeded in improving access to sanitation for most households. However, challenges remain when it comes to achieving sustainable behaviour change across communities. Experts such as (Weststrate et al., 2019) emphasized that the effectiveness of sanitation programs is determined not only by the improvement of infrastructure, but also by the success in changing community behavior through participatory and empowerment approaches. This suggests that, although the program at Tambak Osowilangun showed initial success, a more integrated approach is still needed to address the cultural and social barriers that hinder total behavioural change.

The findings of the interviews show that although the allocation of funds for this program is adequate, implementation in the field often faces obstacles that reduce efficiency, such as lack of coordination between the various agencies involved and delays in the procurement of materials. Experts such as Peterson & Skolits (2020) the utilization-focused evaluation concept argue that program efficiency can be improved through better planning and direct stakeholder involvement in the evaluation and implementation process. However, there are also criticisms from experts such as Hill & Hupe (2021) who state that efficiency in policy implementation is often difficult to achieve in a complex bureaucratic environment, where political and administrative interests can hinder the effective flow of resources and information.

Based on the results of the interviews, there is evidence of a significant reduction in the incidence of sanitation-related diseases, such as diarrhea, which shows the positive impact of this program. However, this impact has not been felt evenly in all urban areas, especially in more remote areas. Vaz Nery et al., (2019) states that in order to understand the full impact of sanitation programs, it is important to conduct long-term evaluations that include not only the immediate impact on health, but also how changes in behavior and use of sanitation facilities can be sustained in the long term. However, other experts such as Spector et al., (2019) criticize that impact measurement often ignores contextual variability, such as geographic and socioeconomic differences, which can affect program outcomes.

Without continued policy support and active community involvement, there is a risk that the results achieved could be lost over time. Another opinion Bisung & Dickin (2019) with an empowerment evaluation approach emphasizes the importance of empowering communities to maintain sanitation facilities and practices independently. On the other hand, critics of this approach, as put forward by Eriksen et al., (2021) note that sustainability often requires ongoing intervention from governments and external donors, especially in communities with limited resources, and community empowerment may not be enough without strong structural support.

4.2 Supporting Factors and Factors Hindering Program Implementation

One of the main factors that supports the success of the ODF program in Tambak Osowilangun Village is the active involvement of the local community and the support of community leaders. Based on interviews with community leaders and RW leaders, this program received a positive response because it involved the community in every stage of its implementation, from planning to monitoring results. This community participation is in line with the Community-Led Total Sanitation (CLTS) approach which according to Nielsen et al., (2018) can accelerate behavior change and increase the community's sense of ownership of the program results. They argue that direct community involvement in decision-making and program implementation is key to sanitation success at the community level.

Other supporting factors are strong policy support and adequate funding allocation from local governments. Officials from the health office revealed that the city government has issued policies that support the ODF program, including a special budget allocation for the development of sanitation infrastructure and training for the community. This clear policy support is important to ensure the sustainability of the program, as noted by Odagiri et al., (2020) who states

that government policy support and adequate budget allocation are key factors in the long-term success of sanitation programs.

Although there are many supporting factors, the ODF program in Tambak Osowilangun also faces several significant obstacles. One of the main inhibiting factors is the limitation of infrastructure, especially in remote areas that are difficult to reach. Some residents reported that although toilets have been built, access to clean water for sanitation is still a problem. This indicates that the success of sanitation programs does not only depend on the construction of facilities, but also on the availability of adequate supporting resources, such as clean water. Bayu et al., (2020) asserts that access to clean water is an integral component of effective sanitation, and that this lack of access can hamper efforts to improve sanitation.

Another significant inhibiting factor is strong cultural resistance and traditional behaviors in some parts of the community. Interviews with health workers and community leaders revealed that despite increased awareness about the importance of sanitation, some community groups still maintain the practice of open defecation for reasons of convenience or long-established habits. Behavior change requires a change in attitudes, subjective norms, and behavioral control perceptions (Aschwanden et al., 2021). However, criticism of this approach, as put forward by Sparkman et al., (2021) highlights that sanitary behaviour change often faces barriers greater than mere awareness and intention, including structural and social constraints.

5. Conclusion

This study evaluates the implementation of the Open Defecation Free (ODF) Program in Tambak Osowilangun Village, Surabaya City using a qualitative approach with in-depth interviews, documentation, and observation. The findings of the study show that the program has been successful in increasing access to proper sanitation facilities and reducing the incidence of sanitation-related diseases such as diarrhea. However, significant challenges still exist, especially related to uneven changes in community behavior and suboptimal maintenance of sanitation facilities. The success of the program is supported by the active involvement of local communities and policy support from local governments, but is hampered by factors such as limited infrastructure in remote areas and cultural resistance to changes in sanitation practices. The limitations of this study include geographic coverage limited to a single village and a qualitative approach that may not cover the variation of experiences across the regions affected by the ODF program. In addition, this study relies on data obtained from interviews and observations, which can be influenced by subjective bias from informants or researchers. These findings may not be fully representative of the entire population in Tambak Osowilangun Village, so the results may not be widely generalized without additional research that is more in-depth and covers more locations.

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