



Implementation of the Healthy Community Movement (GERMAS) through the ownership of sanitary toilets

Yuzuar Afrizal¹, Muria Herlina²

¹Department of Civil Engineering, Faculty of Engineering, ²Department of Social Welfare, Faculty of Social and Political Sciences, Universitas Bengkulu
Jl. WR. Supratman, Kandang Limun, Bengkulu, 38371, Indonesia

ARTICLE INFO:

Received: 2023-06-16
Revised: 2023-07-11
Accepted: 2023-08-19

Keywords:

Healthy community movement, Farmer groups, Mutual cooperation, Toilets

ABSTRACT

Improper disposal of fecal matter in inappropriate locations can lead to environmental pollution, various diseases, and even death. This community service project focused on assisting farmer groups in Air Pesi Village, Kepahiang District, Bengkulu Province, who lacked proper sanitation facilities. Initially, the goal was to build two sanitary toilets, but this was expanded to four through cost-effective communal labor. Pre-and post-test assessments showed a substantial increase in residents' knowledge of healthy behaviors and GERMAS principles, from 32% before the intervention to 89% afterward. Additionally, the project successfully exceeded its target by constructing four sanitary toilets, which were not only used for waste disposal but also as bathing and laundry facilities. Community awareness of GERMAS principles increased by 57%. This initiative can serve as a model for local residents and inform government policies on rural sanitation. This project highlights the importance of community-driven sanitation improvements in rural areas.

©2023 Abdimas: Jurnal Pengabdian Masyarakat Universitas Merdeka Malang
This is an open access article distributed under the CC BY-SA 4.0 license
(<https://creativecommons.org/licenses/by-sa/4.0/>)

How to cite: Afrizal, Y., & Herlina, M. (2023). Implementation of the Healthy Community Movement (GERMAS) through the ownership of sanitary toilets. *Abdimas: Jurnal Pengabdian Masyarakat Universitas Merdeka Malang*, 8(3), 430-440
<https://doi.org/10.26905/abdimas.v8i3.10845>

1. INTRODUCTION

The Healthy Community Movement (GERMAS) represents a systematic and planned initiative involving all components of the nation, jointly initiated by the Indonesian Ministry of Health, aimed at fostering conscious, willing, and capable healthy behaviors. GERMAS encompasses seven indicators, one of which is the possession and use of sanitary toilets. A global public health concern is the practice of open defecation. According to the World Health Organization (WHO) report in 2021, over 400 million individuals still engage in open defecation (Belay et al., 2022). A health research study conducted in 2018 (RISKESDAS) revealed that 88.2% of individuals practice open defecation in Indonesia, with rates of 94.2% in urban and 80.9% in rural areas. The national target in Indonesia is 100% access to sanitary toilets (Depkes RI, 2022). Open defecation leads to adverse health consequences, including environmental pollution, various diseases, and even mortality.

The 2020 National Work Meeting indicated that public health issues, especially the Healthy Community Movement, continue to be a national challenge, necessitating attention from various societal elements. Economic growth obstacles indirectly affect the local population's health conditions, leading

to shifts in social dynamics. The government has made efforts to improve public health, including the implementation of GERMAS policies, outlined in the Minister of National Development Planning/Head of the National Development Planning Agency of the Republic of Indonesia Regulation No. 11 of 2017 on the General Guidelines for Implementing the Healthy Community Movement. Article 3, paragraph (1) of this regulation focuses on achieving GERMAS objectives through activities with indicators, such as: (1) Engaging in physical activity; (2) Consuming fruits and vegetables daily; (3) Not smoking; (4) not consuming alcohol; (5) Undergoing regular health check-ups; (6) Using sanitary toilets; and (7) Maintaining environmental cleanliness (Ani et al., 2020; Winangsih & Nisa, 2020). This implies that for a healthy lifestyle, sanitary toilets meeting health standards are essential, as they contribute to environmental hygiene. Neglecting this aspect can lead to environmental contamination, particularly from human waste, resulting in diarrheal diseases (Kasman & Irnawulan, 2020). Furthermore, it is noted that diarrhea in young children can be fatal.

It is well-known that protected forests serve as vital supports for life's sustainability. Air Pesi Village, Seberang Musi Subdistrict, Kepahiyang District, situated on the outskirts of the rainforest hills (Bukit Barisan), has approximately 40% of its residents lacking access to sanitary toilets. Many of those residing near the river practice open defecation into the "Tertik/Pesi" river, which flows through the village. Meanwhile, those farther from the river resort to open defecation in various places, such as shrubbery, gardens, or makeshift toilets (Herlina & Palutturi, 2021). Given the prevalent unsanitary conditions and open defecation practices, the community engagement team was motivated to provide assistance through a community service initiative, specifically by constructing sanitary toilets in Air Pesi Village, Seberang Musi Subdistrict, Kepahiyang District.

2. METHODS

The community service initiative spanned a duration of four months in the year 2023 in Air Pesi Village, Seberang Musi Subdistrict, Kepahiyang District. The success of the project was evaluated based on the achievement of the target participation of the villagers in the activities. The stages of the project followed a community service methodology, as outlined by Murdjito (2012).

Permission Request

The project began with an initial meeting with the officials of Air Pesi Village by the Institute for Research and Community Services (LPPM) team from the University of Bengkulu. During this meeting, the background and objectives of the project in Air Pesi Village were explained.

Field Observation

The team conducted field surveys to assess the local terrain and the health behaviors of the villagers. This allowed for the identification of the specific focus areas for the construction of sanitary toilets, material procurement, and the implementation of the Healthy Community Movement (GERMAS).

Discussion with Partners

A consensus was reached through discussions and consultations with village officials, members of the local farmer groups, and the LPPM team from the University of Bengkulu. Initially, two sanitary toilets were planned, but this was expanded to four units, benefiting four households. The criteria for recipients included membership in the impoverished farmer groups and a lack of access to sanitary toilets in accordance with health standards.

Material Procurement

Materials for constructing the sanitary toilets were procured, including items such as bricks, sand, iron, cement, wood, ceramics, water containers, and ladles, among others.

Practice and Guidance

The project involved practical implementation and guidance for the construction of four sanitary toilets for the targeted households. The stages of construction included: (1) Preparing a septic tank hole measuring 1x1.5 meters and at least 2 meters deep as a sign of the households' commitment to receiving the toilet assistance; (2) Sealing/pouring the septic tank hole; (3) Constructing the framework for the walls and roof of the toilet measuring 1.25x1.25 meters; (4) Constructing the toilet floor and the space for the squat toilet; (5) Installing a wooden framework measuring 1.25x1.25 meters, attaching and installing zinc walls; (6) Placing ceramic tiles on the toilet floor; (7) Installing the toilet door; (8) Positioning the water tank and ladle; (9) Connecting the water hose with the participation of the recipients; (10) Making the toilet ready for use.

Socialization

The initiative included a lecture on healthy behaviors, with a particular focus on the use of sanitary toilets, using a simple approach. Prior to the lecture, it was found that villagers had a knowledge level of only 32% (pre-test). After the lecture, a reevaluation was conducted with the same set of questions in a post-test, resulting in an increased knowledge level of 89%. This indicated a 57% improvement in knowledge among the villagers.

3. RESULTS AND DISCUSSION

Geographical Conditions of Air Pesi Village

Air Pesi Village is situated within the administrative region of Seberang Musi Subdistrict, Kepahiyang District, in the Bengkulu Province. The village covers an approximate area of 274 hectares, comprising 8 hectares of residential areas, 65 hectares of paddy fields, 5 hectares of mixed plantations, and 195 hectares of forested land. Additionally, there are areas designated for cultivation and ponds, each measuring 400 square meters and 500 square meters, respectively. The village is home to a population of 648 individuals, consisting of 392 males and 266 females, organized into 268 households (KK). The population is distributed across four hamlets. The primary occupations of the residents are farming and agricultural labor, while others are engaged in various activities such as artistry, trade, and more. The majority of the inhabitants belong to the Serawai ethnic group (from Bengkulu Selatan), followed by Javanese and Rejang ethnic groups, with a smaller portion having mixed ethnic backgrounds, including Pasmah and Medan/Batak.

The village's topography encompasses both flatlands and hills, with boundaries as follows: to the North, it borders Babatan Village; to the East, it shares borders with Talang Gelompok and Benuang Galing Villages; to the South, it abuts protected forests; and to the West, it borders Bayung and Taba Padang Villages. In terms of distance, Air Pesi Village is situated approximately 7 kilometers from the subdistrict center, 12 kilometers from the district center, and 83 kilometers from the Bengkulu Province center (Village Profile 2022).

Survey and Observation of GERMAS Implementation in Air Pesi Village

Based on the survey findings, the environmental situation in Air Pesi Village reveals the presence of overgrown forests and clustered settlements. In Dusun I, these settlements are predominantly located

Implementation of the Healthy Community Movement (GERMAS) through the ownership of sanitary toilets

Yuzuar Afrizal, Muria Herlina

within coffee plantations and along the village's main road. Dusun II consists of residential areas and is traversed by the "Tertik/Pesi" river. Moving on to Dusun III, it shares the same river as Dusun II and serves as the administrative center of the village, hosting facilities such as the Village Hall, Health Center (Posyandu), mosque, and village public housing (Perumnas Desa). Dusun IV, in contrast, has very few residential houses and is surrounded by coffee and pepper plantations. A significant portion of the village's population still lacks access to sanitary toilets, with many resorting to using the river as a location for open defecation (OD). Additionally, some residents engage in OD in various places such as shrubbery or near water sources (tributaries), while others make use of makeshift toilets, as depicted in Figure 1.



Figure 1. Condition of family toilet and gardens or bushes for defecation in Air Pesi Village



Figure 2. The septic tank holes in (a) Dusun 1; (b) Dusun 2; (c) Dusun 3; and (d) Dusun 4 of Air Pesi Village

Referring to Figure 1, the condition of the toilets owned by the residents and residents are still found defecating in the river and in any place, the service lecturers are motivated to provide assistance

to the residents through community service activities, practice of making family toilets/latrines and followed by a lecture about healthy behavior through GERMAS activities. As a result of socialization with residents, initially the target was to only provide 2 WCs, after the socialization it turned out that residents wanted to work independently, namely working together to create 4 WC units.

The conditions for residents selected as targets for the activities of the Air Pesi Village farmer group are that they are willing to make a septic tank hole independently with a size of 1x1.5 meters and a minimum depth of 2 meters (a sign of the recipient's seriousness) in less than one week, 4 septic tank holes have been completed.



Figure 3. Socialization activities with Air Pesi Village Officials

Procurement of Materials for Building Toilets

To construct four sanitary toilets, each unit requires the same set of building materials, including: squat toilets, bricks, cement, zinc, wood, iron, nails, buckets, hinges, ladles, and stickers, with a total of four sets. Each partner receives an equal quantity of materials for the construction of one toilet. All materials are provided by the community service team.



Figure 4. Procurement of goods and handover of materials

Practice of Assistance in Making Healthy Toilets

Septic tank cover measuring and casting

The septic tank holes have already been prepared by the recipient community members based on the dimensions provided during the initial survey. The community displayed enthusiasm in preparing

Implementation of the Healthy Community Movement (GERMAS) through the ownership of sanitary toilets

Yuzuar Afrizal, Muria Herlina

these septic tank holes, as it was one of the requirements to demonstrate their commitment to receiving the assistance. Consequently, when it comes to the actual construction of the toilets, all septic tank holes are already prepared and ready for use.



Figure 5. Preparing septic tank



Figure 6. Assistance in building foundations, roof frames, and walls

Results of practices for making healthy toilets/WCs in Air Pesi Village

Figure 7 indicates, based on information provided by partners from Dusun 4 and Dusun 2, that in addition to being used as a toilet (for defecation), the sanitary toilets (WCs) are also utilized by recipients as bathing and laundry facilities. This is particularly significant given that some community members do not yet have access to proper and enclosed bathing facilities. The community service initiative conducted by LPPM UNIB in Air Pesi Village, Seberang Musi Subdistrict, Kepahiang District, Bengkulu Province, has proven to be highly beneficial for the partners.



Figure 7. Construction/external and internal appearance of the toilets/WC (Results of LPPM UNIB Service)

Lectures and discussions about healthy behavior with GERMAS

The community has gained new knowledge regarding the importance of maintaining healthy behaviors through GERMAS (Healthy Community Movement). One of its indicators involves the necessity of having a sanitary toilet (WC). The impact of this knowledge is significant as it helps prevent environmental contamination by human waste, which not only serves as a source of diseases but also contributes to fatalities.

The level of understanding among the residents about GERMAS increased substantially, as evidenced by the pre-test (32%) and post-test (89%) results. This means that after conducting lectures and discussions on GERMAS, the knowledge of the Air Pesi Village community increased by 57%.

Monitoring and Evaluation

Figures 9 and 10 depict the presence of the monitoring and evaluation team from LPPM-UNIB, consisting of four individuals (two professors and two staff members from LPPM-UNIB, including a monitoring facilitator and a driver). The team is seen inspecting and evaluating the outcomes of the community service provided to the villagers.

It can be concluded that the outcomes align with the conditions typically found in rural areas, where many residents do not have access to sanitary toilets for defecation. The achievement surpasses the initial target, with the number of sanitary toilets increasing from two units to four units. Furthermore, the lectures and discussions on healthy behaviors (GERMAS) yielded positive results, with a 57% increase in the residents' understanding. All of these outcomes reflect positive progress..

Implementation of the Healthy Community Movement (GERMAS) through the ownership of sanitary toilets

Yuzuar Afrizal, Muria Herlina



Figure 8. Lectures and discussions about healthy behavior with GERMAS



Figure 9. Monitoring and evaluasi of LPPM UNIB Air Pesi Village

Figure 10. The Movev -LPPM-UNIB Team visited one of the latrine recipients in Dusun 3, Air Pesi Village

Discussion

The government has made efforts to improve public health, including through the Healthy Community Movement (GERMAS), as outlined in the regulation of the Ministry of National Development Planning/Head of the National Development Planning Agency, Republic of Indonesia, No. 11 of 2017, which provides general guidelines for the implementation of the Healthy Community Movement. Article 3, paragraph (1) of this regulation focuses on achieving GERMAS goals through activities with indicators such as engaging in physical activities, consuming fruits and vegetables daily, not smoking, abstaining from alcohol consumption, regular health check-ups, using sanitary toilets, and maintaining environmental cleanliness (Ani et al., 2020; Winangsih & Nisa, 2020).

Harter et al. (2020) have stated that open defecation is associated with poor health and child mortality, yet billions of people still lack access to safe sanitation facilities. Community-Led Total Sanitation (CLTS) promotes the construction of toilets to eliminate open defecation, ideally combined with a model of risk, attitude, norms, capacity, and self-regulation (RANCR). In various countries, such as India, as per De Shay et al. (2020), there is much work to be done to maintain previous behavior improvements and address remaining gaps in toilet coverage and usage. Understanding community perceptions of sanitation interventions is crucial.

Additionally, as expressed by Mubatsi et al. (2021) and Orgill-Meyer (2020), in Bwaise, which is a typical densely populated informal settlement in sub-Saharan Africa, the most common type of toilet used is pit latrines. However, many of these are shallow, unsanitary, infested with flies, and emit foul odors. Most pit latrines have a lifespan of less than 15 years, some even as short as 2 years, primarily due to low levels of education, leading to open defecation. Findings in Ethiopia reveal that contextual, psychosocial, and technological factors influence the adoption and usage of toilets. Adopting a supportive approach can lead to a better understanding. Providing funding opportunities for less privileged communities and offering technical toilet construction skills training at the community level can help establish sanitary behaviors and norms (Tamene & Afework, 2021).

In Indonesia, based on the Basic Health Research (Riskesdas Kemenkes RI, 2018), the prevalence of open defecation behavior in toilets increased to 88.2 percent, whereas in the previous year, it was around 81 percent. The lack of proper sanitation access leads to child stunting (Harsono, 2018). According to Dwiputra (2019), unsanitary toilets can become sources of germ transmission and result in various diseases, such as diarrhea, typhoid, and polio. If experienced frequently, typhoid can lead to poor appetite, digestive disturbances, and hinder child growth, ultimately resulting in stunting (short stature).

A study in West Kalimantan shows a relationship between income or economic status and toilet ownership, but knowledge and attitudes do not indicate a connection between education and the role of healthcare workers in toilet ownership in Malikian Village, Mempawah Hilir, West Kalimantan (Masnarivan & Arlina, 2020; Widyastutik, 2017). In Pekanbaru, there is a correlation between knowledge, income, availability of clean water, and toilet ownership, but no association between the role of healthcare workers and toilet ownership in Kampung Subdistrict (Hayana et al., 2020).

Based on a survey conducted by Herlina and Palutturi (2021), in Air Pesi Village, which is one of the villages located on the outskirts of the Bukit Barisan protected forest referred to as the "Bukit Sanggul" community, it was found that a significant portion of the population did not have sanitary toilets. Most residents dispose of their feces in the river, and if not addressed promptly, this could lead to river pollution. The "Tertik"/Pesi river flows through the village, posing a health threat to the village residents, especially children.

4. CONCLUSION AND RECOMMENDATIONS

The community service program aimed to provide assistance in the form of constructing sanitary toilets (WCs) and conducting socialization to encourage the community to participate in the Healthy Community Movement (GERMAS) in Air Pesi Village, Seberang Musi Subdistrict, Kepahiang District. The program resulted in the construction of 4 permanent, cost-effective, and easily built sanitary toilets for use by members of the farming community. These toilets have proven to be beneficial to the residents. Based on the pre-test and post-test results, it was observed that there was a 57% increase in the community's knowledge of healthy living behaviors after participating in the GERMAS socialization.

Some limitations encountered during the implementation of this program included the difficulty of changing the habits of community members who were bound by their previous values and culture, inadequate access to sanitation facilities, a lack of awareness regarding health risks, and limited community involvement as active drivers of the GERMAS program. To overcome these challenges, it is advisable to provide continuous education to the community to raise awareness of healthy living behaviors in their daily lives. Community self-help initiatives are needed to improve access to more adequate sanitation facilities. Government program support is essential to enhance healthy sanitation infrastructure, thus increasing community awareness and encouraging the abandonment of old values and cultural practices.

ACKNOWLEDGEMENT

We extend our sincere gratitude to the Research and Community Service Institute of Bengkulu University for their financial support and successful execution of the research-based community service in 2023 under contract number 3178/UN30.15/PM/2023. We also acknowledge the invaluable motivation and support provided by the head of the farmer group and the head of Air Pesi Village in Seberang Musi Subdistrict, Kepahiang District, Bengkulu Province.

REFERENCES

- Ani, M. A. M., Wijayanti, K., & Harwijayanti, B. P. (2020). Membudayakan hidup bersih dan sehat melalui Gerakan Masyarakat Hidup Sehat (Germas) di Desa Jepangrejo, Blora. *ABDIMAS Madani*, 2(2), 25-32.
- Belay, D. G., Chilot, D., & Asratie, M. H. (2022). Spatiotemporal distribution and determinants of open defecation among households in Ethiopia: A Mixed effect and spatial analysis. *Plos one*, 17(5), e0268342. <https://doi.org/10.1371/journal.pone.0268342>
- De Shay, R., Comeau, D. L., Sclar, G. D., Routray, P., & Caruso, B. A. (2020). Community perceptions of a multilevel sanitation behavior change intervention in rural Odisha, India. *International journal of environmental research and public health*, 17(12), 4472. <https://doi.org/10.3390/ijerph17124472>
- Departemen Kesehatan (Depkes) RI. (2022). *Hasil utama RISKESDAS 2018 [Internet]*. Kementerian Kesehatan Badan Penelitian dan Pengembangan Kesehatan.
- Dwiputra, K. O. (2019, October 10). *Dampak buruk bagi kesehatan buang BAB*. KlikDokter. Retrieved from: <https://www.klikdokter.com/info-sehat/read/3633676/dampak-buruk-bab-sembarangan-bagi-kesehatan>

- Harter, M., Inauen, J., & Mosler, H. J. (2020). How does Community-Led Total Sanitation (CLTS) promote latrine construction, and can it be improved? A cluster-randomized controlled trial in Ghana. *Socialscience&medicine*, 245, 112705. <https://doi.org/10.1016/j.socscimed.2019.112705>
- Hayana, H., Raviola, R., & Aryani, E. (2020). Hubungan cakupan kepemilikan jamban di Kelurahan Kampung Baru Kota Pekanbaru. *Jurnal Kesehatan Global*, 3(1), 9-17. <https://doi.org/10.33085/jkg.v3i1.4536>
- Harsono, F. H. (2018, November 25). *Paham efek BAB sembarangan, masyarakat jadi mau gunakan jamban*. Liputan6. Retrieved from: <https://www.liputan6.com/health/read/3735232/paHam-efek-bab-sembarangan-masyarakat-jadi-mau-gunakan-jamban>
- Herlina, M., & Palutturi, S. (2021). *Analisis sosial budaya dalam kegiatan GERMAS di Desa Pinggiran hutan Lindung Kabupaten Kepahiang*. Bengkulu: LPPM UNIB.
- Kasman, K., & Ishak, N. I. (2020). Kepemilikan jamban terhadap kejadian diare pada balita di Kota Banjarmasin. *Jurnal Publikasi Kesehatan Masyarakat Indonesia*, 7(1), 28-33. <http://dx.doi.org/10.20527/jpkmi.v7i1.8790>
- Masnarivan, Y., & Arlina, E. (2020). Penyebab ketidakpemilikan jamban sehat. *Jurnal Kesehatan*, 11(2), 121-126. <https://doi.org/10.35730/jk.v11i2.523>
- Mubatsi, J. B., Wafula, S. T., Etajak, S., Ssekamatte, T., Isunju, J. B., Kimbugwe, C., Olweny, M., Kayiwa, D., Mselle, J. S., Halage, A. L., Ssempebwa, J. C., & Mugambe, R. K. (2021). Latrine characteristics and maintenance practices associated with pit latrine lifetime in an informal settlement in Kampala, Uganda. *Journal of Water, Sanitation and Hygiene for Development*, 11(4), 657-667. <https://doi.org/10.2166/washdev.2021.032>
- Murdjito, G. (2012). *Metoda pengabdian pada masyarakat* [PowerPoint]. Retrieved from: <https://www.slideshare.net/FitriRiyanto/metoda-pengabdian-pada-masyarakat-pak-gatot1>
- Orgill-Meyer, J. (2020). Interaction of village and school latrines on educational outcomes in India. *Journal of Water, Sanitation and Hygiene for Development*, 10(4), 618-627. <https://doi.org/10.2166/washdev.2020.049>
- Riskesdas Kemenkes RI. (2018). *Laporan nasional*. Badan Penelitian dan Pengembangan Kesehatan.
- Tamene, A., & Afework, A. (2021). Exploring barriers to the adoption and utilization of improved latrine facilities in rural Ethiopia: An Integrated Behavioral Model for Water, Sanitation and Hygiene (IBM-WASH) approach. *PloS one*, 16(1), e0245289. <https://doi.org/10.1371/journal.pone.0245289>
- Winangsih, R., & Nisa, H. (2020). Strategi komunikasi dinas kesehatan kota serang mengenai program Gerakan Masyarakat Hidup Sehat (GERMAS). *Journal of Scientific Communication (JSC)*, 1(1), 14-26. <http://dx.doi.org/10.31506/jsc.v1i1.7765>
- Widyastutik, O. (2017). Faktor yang berhubungan dengan kepemilikan jamban sehat di Desa Malikian, Kalimantan Barat. *Jurnal Ilmu Kesehatan Masyarakat*, 13(1). <https://doi.org/10.19184/ikesma.v13i1.5223>
-