

WALINGHEALTH INTEGRATION TO SUPPORT THE ACHIEVEMENT OF THE SDGS IN LEUWEUNGKOLOT BOGOR VILLAGE

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Abstract

Waste management and environmental health remain major challenges in Leuweungkolot Village, potentially hindering the achievement of sustainable development. The situational analysis revealed that most residents lack awareness and skills in waste segregation and environmental health practices. This condition has led to household waste accumulation, low hygienic behavior, and limited institutional capacity at the village level to address environmental issues. The proposed solution through the Walinghealth program includes education, community mentoring, and the establishment of local groups focusing on waste management, recycling, and participatory-based health improvement. The program is integrated with institutional strengthening at the village level to ensure long-term sustainability. The implementation results show increased community awareness, the formation of local environmental groups, and the availability of a simple waste management system at the village level. Thus, the integration of the Walinghealth program provides tangible impacts for the community and supports the achievement of sustainable development goals at the village scale. **Keywords:** Community Empowerment, Walinghealth, Healthy Environment, Sustainable Village, SDGs

INTRODUCTION

Waste management and environmental health are complex problems faced in almost all rural areas in Indonesia. This problem not only has an impact on the aspect of environmental cleanliness, but also affects the quality of public health and the sustainability of village development. According to the United Nations (2015), the *Sustainable Development Goals* (SDGs) emphasize the importance of environmental and health management as part of achieving global targets. However, at the village level, implementation still faces structural and cultural obstacles.

Leuweungkolot Village as one of the villages in Bogor Regency that experiences similar challenges, is characterized by low public awareness in waste sorting, limited household waste management systems, and weak village institutions in overcoming environmental issues (Cendana & Wardhani, 2020). This situation leads to the accumulation of waste, decreased

sanitation quality, and increased public health risks (Putra & Sari, 2019). This condition requires program innovation that is able to answer the real needs of the village community.

The uniqueness of the Walinghealth (*Waste, Recycling, and Health*) program is that it integrates three important aspects at once, namely waste management, recycling activities, and health improvement based on community participation. This program not only provides education, but also builds community institutions as a driving force so that the sustainability of the program is maintained (Zulkarnain & Puspitasari, 2021). This approach shows originality because it combines the concept of community empowerment with integrated environmental management, which has not been widely applied in other villages.

Based on these conditions, the main purpose of this service activity is to optimize the empowerment of the Leuweungkolot Village community through the integration of the Walinghealth program so that it can support the achievement of the SDGs at the village level. With this program, it is hoped that there will be an increase in awareness, behavior change, and the formation of a village institutional system that is able to manage environmental issues in a sustainable manner.

IMPLEMENTATION METHOD

The method of implementing this community service activity uses a participatory-based community empowerment approach by integrating three main aspects, namely *waste, recycling, and health*. The participatory approach was chosen because it has been proven to be able to increase active community involvement and strengthen a sense of belonging to the program (Apriliyanto & Yuniarto, 2021). The implementation of the Walinghealth program in Leuweungkolot Village is carried out through several stages as follows:

Preparation Stage

- Carry out field surveys to map environmental conditions and community behavior patterns related to waste and health.
- Hold discussions with community leaders and village officials to identify key local issues and potentials.
- Develop a comprehensive program concept based on the results of surveys and discussions.
- Forming an implementation team and regulating the division of roles of each member.
- Coordinate with accompanying lecturers and village partners so that the program is in line with the needs of the community and supports village policies (Sugiyono, 2019).

Implementation Stage

- **Program Waste**
 - Education on waste sorting to residents through socialization and direct practice.
 - The formation of local communities KRL (*Environmentally Friendly Village*) and GASSAH (*Healthy Living Waste Awareness Movement*) as the person in charge of the sustainability of the program.
 - The construction of the TPS3R (Reduce, Reuse, Recycle Waste Processing Site) facility as a waste processing site for the Leuweungkolot Village community.

- **Program Recycling**

- Training on making liquid compost from residents' organic waste.
- Workshop on making paving blocks from plastic waste.
- Handicraft training made from inorganic waste to increase the creative economic potential of Leuweungkolot Village.

- **Program Health**

- Socialization of Clean and Healthy Living Behavior (PHBS) to residents.
- Distribution of educational media through *the door-to-door* method to make health messages easier to receive.
- Strengthening the role of village cadres in overseeing public health programs (Yuliani & Hidayat, 2022).

Evaluation Stage

- Conducting an internal evaluation of the implementation team on program achievements and obstacles in the field.
- Conduct evaluations with target groups to obtain feedback.
- Involving universities in monitoring and evaluation (money) as a form of supervision and quality assurance of programs.

Sustainability Stage

- Strengthening local communities to act as a driving force for programs so that sustainability can be guaranteed (Zulkarnain & Puspitasari, 2021).
- Assistance to village institutions through the establishment of simple rules related to waste management and health.
- Continuous support from village partners, both in the form of facility facilitation and strengthening networks with external parties.
- Integration of programs into the village agenda as part of the achievement of the SDGs (United Nations, 2015).

RESULTS AND DISCUSSION

The Walinghealth *program* which is carried out in Leuweungkolot Village is a form of implementation of the LDK ITB Dewantara Student Organization Capacity Building Program in 2025. The implementation team consists of members of UKM LDK ITB Dewantara with the support of accompanying lecturers, university lecturers, and village officials. This collaboration is the main motor in planning, implementing, and monitoring programs, so that each stage of activities can run in a directional manner and according to the set indicators.



Figure 1. Implementation Team of UKM LDK ITB Dewantara 2025

This program aims to improve the quality of the environment, health, and community independence through a participatory approach. After going through the stages of preparation, implementation, evaluation, and strengthening sustainability, a number of achievements were obtained that illustrate the real impact of the program on society.

Preparation Stage

The preparation stage began with a series of field survey activities carried out by the implementation team in the Leuweungskolot Village area. This survey aims to obtain a comprehensive picture of the social, cultural, and environmental conditions of the community, focusing on household waste management patterns and residents' habits in maintaining their daily health. The survey process is not only in the form of direct observation in the field, but also involves brief interviews with residents to dig up information about their habits in disposing of garbage, yard land utilization, and their initial understanding of the concept of Clean and Healthy Living Behavior (PHBS). In this way, the team gets more comprehensive and real data related to the real situation in the community.

The initial findings of the survey were then deepened through targeted discussions with community leaders, village cadres, and village government officials. This discussion is an important forum to identify key problems as well as explore local potential that can support the success of the program. From the results of the discussion, it was revealed that one of the most urgent problems is the high volume of plastic waste that is not managed properly. Household waste is mostly only burned or thrown into vacant land, causing environmental pollution. In addition, low public awareness of PHBS is also a significant obstacle, for example the lack of attention to the cleanliness of the environment around the house.



Figure 2. Survey of the Implementation Location of the Walinghealth Program

Based on the results of the condition mapping and discussions with village stakeholders, the implementation team then developed a comprehensive program concept that emphasized the integration of three main aspects: *waste*, *recycling*, and *health*. This concept was prepared by considering the factual conditions of the community, the potential of existing resources, and the suitability of the Sustainable Development Goals (SDGs) targets. In this stage, the implementation team is also officially formed with a clear division of roles, ranging from the chief executive, secretary, treasurer, field division, event division, to the publication and documentation division. The organizational structure of the team is arranged in such a way that the implementation of the program runs effectively and efficiently, and each member has measurable responsibilities.

Furthermore, intensive coordination is carried out with accompanying lecturers and village partners to ensure that the program design is truly in line with the needs of the community and does not conflict with village policies. This coordination also includes adjustments to the activity schedule, implementation strategies, and monitoring mechanisms that will be carried out. With careful coordination, the preparation stage not only serves as a technical foundation, but also as a strategic step in building trust and support from the village community, so that the program can be well received and has a great opportunity to be sustainable (Sugiyono, 2019).

Implementation Stage

The stage of implementing *the Walinghealth program* is the core of this community service activity, because at this stage all the concepts that have been prepared previously are realized in real life in the field. The implementation of the program is designed by integrating three main aspects, namely *waste*, *recycling*, and *health*, which support each other to achieve the final goal of a clean environment, a healthy community, and an independent village.

In the *waste program*, activities are focused on education on household waste sorting. Education is carried out directly through socialization by the District Environment Agency and field practice with residents, so that the community not only understands the theory, but is also able to apply it in their daily lives. To strengthen this behavior change, two local communities were formed, namely the Environmentally Friendly Village (KRL) in RW 06 and the Healthy Living Waste Awareness Movement (GASSAH) in RW 01 Leuweungkolot Village. These two communities play a role as the main driving force tasked with educating, inviting and

motivating the community to be consistent in managing waste.



Figure 3. Establishment of KRL and Gassah Communities

As a form of infrastructure support, a TPS3R (Reduce, Reuse, Recycle Waste Processing Site) facility was also built. The presence of TPS3R is not only a village waste processing center, but also a tangible symbol of the community's commitment to creating a clean and sustainable environment.



Figure 4. TPS3R as a Community Waste Processing Site

In the recycling aspect, the activity is focused on improving people's skills in processing waste into useful products with economic value. The community was given training in making liquid compost made from household organic waste, the results of which can be used as plant fertilizer. In addition, a workshop was held to make paving blocks from plastic waste which is a real solution to the problem of inorganic waste. This activity also opens up new opportunities in the development of the creative economy in the village, because block paving products have potential selling value. Not only that, handicraft training made from inorganic waste was also provided, which aimed to empower housewives and village youth to be able to produce products with artistic value.



Figure 5. Liquid Compost from Organic Waste



Figure 6. Paving Blocks from Plastic Waste



Figure 7. Handicrafts from Inorganic Waste

Meanwhile, in the *health aspect*, the program is directed to foster public awareness about the importance of maintaining personal and environmental hygiene. Socialization of Clean and Healthy Living Behavior (PHBS) is carried out through group meetings, studies, and other community activities so that health messages are more easily accepted. In addition, the implementation team distributes health education media *door-to-door* as well as distributes educational media in the form of garbage posters based on their type, which allows each family to get direct information about a healthy lifestyle. This effort is strengthened by strengthening the role of village cadres, who are trained to be the guardians of the sustainability of health

programs. These cadres are expected to continue education and supervision even though the program has been completed. Documentation in the form of photos of PHBS socialization activities and cadre interaction with the community will be concrete evidence of residents' involvement in health aspects.



Figure 8. Door to Door Education and Poster Educational Media Distribution

Overall, the implementation stage of this program has succeeded in showing the synergy between environmental and health aspects, which not only solves the waste problem but also improves the quality of life of the community. The participatory approach makes the community feel that they have this program, so that the impact is easier to feel and has a great chance to continue (Yuliani & Hidayat, 2022).

Evaluation Stage

Evaluation stage in the program *Walinghealth* carried out comprehensively to ensure that every activity designed can run in accordance with the purpose and have a real impact on the people of Leuweungkolot Village. The first evaluation was carried out internally by the implementation team, namely PPK Ormawa LDK ITB Dewantara students, who routinely held coordination meetings after each series of activities. Through this mechanism, the team was able to identify program achievements, technical obstacles, and supporting factors that facilitate implementation. For example, in the waste sorting education activity, the team noted that the enthusiasm of the community was quite high, but there were still obstacles in the form of limited supporting facilities, such as the availability of sorted waste bins in each house. This note is an important input for improvement in the next activity.



Figure 9. Evaluation of the Implementation Team

In addition to internal evaluation, the evaluation process also involves the participation of target groups. Evaluation with the community is carried out through open discussion forums, in-depth interviews. Through this participatory approach, the community can provide direct feedback on the benefits of the program. Most residents said that recycling training activities, such as making liquid compost and handicrafts from inorganic waste, were felt to be very applicable and useful. However, there are also inputs so that similar activities are carried out more intensively so that the skills obtained by the community can continue to develop. Community participation in this evaluation shows a *sense of belonging* to the program, which in turn strengthens the sustainability of the activity (Suharto, 2014).



Figure 10. Joint Evaluation of the Sasaraan Group

Furthermore, the evaluation was also carried out by involving universities as proposing and accompanying program institutions. Monitoring and evaluation (monev) from universities not only functions as formal supervision, but also as a mechanism for program quality assurance. The accompanying lecturer actively provides direction regarding the suitability of the program with the achievement indicators that have been set, as well as validating the achievement data obtained in the field. With supervision from universities, the results of the

evaluation become more objective, transparent, and have a strong academic basis (Fauzi, 2020).



Figure 11. Online Higher Education Monitoring and Evaluation

Overall, the evaluation carried out in the Walinghealth program resulted in three important findings. First, the program has been proven to be able to increase public awareness of waste management and the importance of clean and healthy living behaviors. Second, there is a need to strengthen the support of facilities and infrastructure so that the program can be run more optimally. Third, the active participation of the community in the evaluation is an early indicator that the program has succeeded in fostering a sense of collective responsibility in maintaining sustainability. Thus, evaluation not only functions as a measure of success, but also as a medium of joint reflection to improve the program in the future (Riyadi & Bratakusumah, 2018).

Sustainability Stage

The sustainability stage in the Walinghealth program is a very important aspect because it determines the extent to which the program that has been implemented can continue to provide long-term benefits to the people of Leuweungkolot Village. One of the main strategies carried out is Strengthening local communities to act as a driving force for the sustainability of the program.

In this case, two key communities have been formed that will be the main driving force when the implementation team no longer conducts direct service, namely the Healthy Living Waste Awareness Movement Community (GASSAH) in RW 01 and the Environmentally Friendly Village Community (KRL) in RW 06 which continues the walinghealth program. These two communities are positioned as the spearhead of the implementation of Walinghealth at the local level. Thus, activities such as waste sorting education, TPS3R management, waste management with usable value, and escorting clean and healthy living behaviors will not only stop when the program is completed, but will continue to run through citizen initiatives. This strategy is in line with the concept of *community-driven development*, where the community is the main actor in development (Zulkarnain & Puspitasari, 2021).



Figure 12. Driving Sustainability Programs

In addition to strengthening the community, village institutional assistance is also a strategic step. The team together with village officials drafted simple rules related to waste management and health, such as the obligation to sort organic-inorganic waste at the household level, as well as the implementation of PHBS in community activities. This rule not only serves as a regulation, but also as a social instrument that binds citizen participation.

Continuous support from village partners also strengthens sustainability. Partners not only provide physical facilities, such as TPS3R facilities and educational media, but also expand networks to environmental agencies, health centers, and non-governmental organizations. This collaboration opens up additional opportunities, both in the form of funding and technical assistance (Fauzi, 2020).

The sustainability strategy is realized by integrating the Walinghealth program into the village development agenda. This program is in line with the Sustainable Development Goals (SDGs), especially goal 3 (Good Health and Well-Being), goal 11 (Sustainable Cities and Settlements), and goal 12 (Responsible Consumption and Production) (United Nations, 2015). With this integration, Walinghealth is positioned not only as a temporary activity, but as part of the village's medium-term development priorities.

Thus, the sustainability stage shows that the success of the program is not only measured by short-term achievements, but also by how far the program is able to institutionalize in the social structure (GASSAH and KRL communities), village institutions, partner support, and local policies. This proves that Walinghealth has great potential to become a model of sustainable community empowerment in Leuweungkolot Village.

CONCLUSION

The Walinghealth program in Leuweungkolot Village has succeeded in increasing community awareness and participation in waste management and the implementation of clean and healthy living behaviors. The formation of the GASSAH community in RW 01 and KRL in RW 06 is the driving force for the sustainability of the program, so that the benefits continue even after the student assistance has been completed. The integration of the program into village

institutions and the support of partners shows that Walinghealth has the potential as a model of sustainable community empowerment that supports the achievement of the SDGs.

REFERENCES

- Apriliyanto, M. A., & Yuniarto, B. (2021). Pemberdayaan masyarakat melalui pengelolaan sampah berbasis partisipasi warga desa. *Jurnal Pengabdian Kepada Masyarakat*, 5(2), 115–124.
- Cendana, D., & Wardhani, D. (2020). Manajemen lingkungan berbasis masyarakat untuk mendukung pembangunan berkelanjutan. *Jurnal Ilmu Lingkungan*, 18(3), 331–340.
- Fauzi, A. (2020). *Evaluasi Program Pemberdayaan Masyarakat*. Jakarta: Rajawali Pers.
- Putra, R. A., & Sari, M. I. (2019). Peningkatan kesehatan lingkungan melalui pemberdayaan masyarakat desa. *Jurnal Kesehatan Masyarakat*, 14(1), 22–30.
- Riyadi, A., & Bratakusumah, D. (2018). *Perencanaan Pembangunan Daerah*. Jakarta: Gramedia.
- Sugiyono. (2019). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Bandung: Alfabeta.
- Suharto, E. (2014). *Membangun Masyarakat Memberdayakan Rakyat*. Bandung: Refika Aditama.
- United Nations. (2015). *Transforming Our World: The 2030 Agenda for Sustainable Development*. New York: United Nations.
- Yuliani, D., & Hidayat, R. (2022). Penguatan Perilaku Hidup Bersih dan Sehat (PHBS) melalui Pemberdayaan Kader Desa. *Jurnal Kesehatan Masyarakat Indonesia*, 17(3), 215–223.
- Yuliani, D., & Hidayat, R. (2022). Penguatan Perilaku Hidup Bersih dan Sehat (PHBS) melalui Pemberdayaan Kader Desa. *Jurnal Kesehatan Masyarakat Indonesia*, 17(3), 215–223.
- Yuliani, R., & Hidayat, A. (2022). Model integrasi pengelolaan sampah rumah tangga dalam mendukung SDGs desa. *Jurnal Pembangunan Berkelanjutan*, 10(1), 44–56.
- Zulkarnain, A., & Puspitasari, R. (2021). Penguatan kelembagaan masyarakat dalam program desa sehat dan ramah lingkungan. *Jurnal Pemberdayaan Masyarakat*, 6(2), 98–109.