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COMMUNITY EMPOWERMENT IN THE PROBEBAYA PROGRAM THROUGH HYDROPONIC CULTIVATION IN RT 02, GUNUNG LINGAI VILLAGE, SAMARINDA CITY

Syahidah Sandya Wati[1], Muhamad Alisalman[2]

[1,2] Program Studi Pendidikan Masyarakat Fakultas Keguruan Dan Ilmu Pendidikan, Universitas Mulawarman, Samarinda, Kalimantan Timur

[1]syahidahsandya@gmail.com, [2]alisalmanmuhamad@gmail.com

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Abstract

Population growth and land conversion in urban areas reduce people's access to productive green spaces. Hydroponic farming is an alternative form of agriculture in limited spaces, as well as a means of community empowerment. This study aims to analyze the process of community empowerment in hydroponic farming activities carried out through the support of the Probebaya program in RT 02, Gunung Lingai Village, Samarinda City. The study employs a descriptive qualitative approach with data collection techniques including interviews, observations, and documentation. The results indicate that the community empowerment process occurs in three stages. The awareness-raising stage is conducted through socialization and motivation, successfully fostering initial community participation. The capacity-building stage is implemented through practice-based training and active mentoring, enhancing technical skills. The empowerment stage is marked by residents' independence in managing the hydroponic system, resolving technical issues, and conducting evaluations through participatory group collaboration. This entire process reflects an increase in residents' capacity, initiative, and responsibility in carrying out activities independently and sustainably.

Keywords: Community empowerment, hydroponics, Probebaya, participation, independence

Abstrak

Pertumbuhan penduduk dan alih fungsi lahan di wilayah perkotaan mengurangi akses masyarakat terhadap ruang hijau produktif. Budidaya hidroponik menjadi alternatif pertanian di lahan terbatas, sekaligus sarana pemberdayaan masyarakat. Penelitian ini bertujuan untuk menganalisis proses pemberdayaan masyarakat dalam kegiatan budidaya hidroponik yang dilaksanakan melalui dukungan program probebaya di RT 02 Kelurahan Gunung Lingai, Kota Samarinda. Penelitian menggunakan pendekatan kualitatif deskriptif dengan teknik pengumpulan data berupa wawancara, observasi, dan dokumentasi. Hasil penelitian menunjukkan bahwa proses pemberdayaan masyarakat berlangsung melalui tiga tahap. Tahap penyadaran dilakukan melalui sosialisasi dan motivasi yang berhasil membangun partisipasi awal warga. Tahap pengkapasitasan dilaksanakan melalui pelatihan berbasis praktik dan pendampingan aktif, yang meningkatkan keterampilan teknis. Tahap pendayaan ditandai dengan kemandirian warga dalam mengelola instalasi hidroponik, menyelesaikan permasalahan teknis, serta melakukan evaluasi melalui kerja sama kelompok yang partisipatif. Keseluruhan proses ini mencerminkan peningkatan kapasitas, inisiatif, dan tanggung jawab warga dalam menjalankan kegiatan secara mandiri dan berkelanjutan.

Kata kunci: Pemberdayaan masyarakat, hidroponik, Probebaya, partisipasi, kemandirian

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INTRODUCTION

Rapid population growth in urban areas has given rise to various new problems, particularly in terms of land use. Samarinda, as one of Indonesia's developing cities, faces challenges in

providing sufficient land for housing, infrastructure, and open spaces. The conversion of green spaces and agricultural land into permanent buildings has resulted in reduced access for the community to productive environmental resources.

This phenomenon directly impacts the decline in opportunities for the community to engage in activities such as gardening, farming, or maintaining food security independently. Fauziah et al. (2018) note that land conversion can degrade environmental quality while limiting the potential for land use that previously supported community livelihoods. In this context, alternative farming methods that do not require extensive land but can still provide tangible economic and social benefits are needed. One relevant innovation is hydroponic farming. This method allows for cultivation without soil and can be applied in limited areas such as home gardens, narrow alleys, or even using vertical racks. In addition to supporting household food security, hydroponics also encourages community involvement in environmentally-based collective activities.

In support of activities at the neighborhood level, the City Government of Samarinda has established the Community Development and Empowerment Program (Probebaya). This program is a neighborhood-based funding scheme that empowers communities to design and implement development and empowerment activities tailored to local needs. The basis for implementing this program is outlined in Samarinda Mayor Regulation No. 11 of 2022 on Technical Guidelines for the Implementation of the Community Development and Empowerment Program, which was subsequently updated through Mayor Regulation No. 04 of 2023. The program encourages community participation in development through direct funding mechanisms at the RT level. One example of its implementation in RT 02 of Gunung Lingai Village is a hydroponic farming initiative, which was conceived and carried out collectively by residents through mutual cooperation. This activity reflects the community's efforts to manage local potential, strengthen self-reliance, and create productive green spaces amid limited land availability. To understand the extent to which these activities can build community capacity and participation, this study employs the empowerment theory approach by Wrihatnolo and Dwidjowijoto (in Pujayanti, 2021), which divides the empowerment process into three stages: awareness, capacity building, and empowerment. This study aims to analyze the community empowerment process in the Probebaya program through hydroponic cultivation in RT 02, Gunung Lingai Village.

METHODS

The research method used in this study was a qualitative approach with a descriptive approach. This approach was chosen because it provides an in-depth overview of the social phenomena occurring in hydroponic cultivation activities in RT 02, Gunung Lingai Village, Samarinda City. Descriptive qualitative research allows researchers to understand the processes, meanings, and dynamics experienced by the community holistically, so that the findings are not only factual but also interpretative according to the field context. This aligns with Creswell's (2018) opinion, which explains that qualitative research aims to explore human experiences in a natural context, allowing researchers to gain a more comprehensive understanding.

The research instruments used included in-depth interview guidelines, observation sheets, and documentation notes. The interview guidelines were semi-structured to provide flexibility in

gathering information from informants, while the observation sheets were used to record behaviors, interactions, and hydroponic cultivation processes in the field. Documentation in the form of archives, activity photographs, and group administrative records was also collected to strengthen the research data. According to Sugiyono (2020), the use of various data collection instruments in qualitative research is very important because it can produce rich, in-depth, and valid information, while strengthening the validity of research findings.

Respondents or informants in this study were selected purposively, based on their direct involvement in the hydroponic cultivation program. Key informants consisted of group leaders who act as activity drivers, facilitators who assist in the coaching process, and residents actively involved in hydroponic practices. These informants were selected based on their relevant experience and knowledge to provide data aligned with the research focus.

Data analysis was conducted inductively through three main stages. First, data reduction was carried out by filtering and simplifying raw data from interviews, observations, and documentation to align with the research focus. Second, data presentation was carried out in the form of descriptive and thematic narratives, making it easier for researchers to identify patterns, relationships, and meaning. Third, conclusions were drawn through a verification process by comparing data from various sources. To ensure data validity, researchers used triangulation of sources and techniques, namely by checking the consistency of information between informants and integrating the results of interviews, observations, and documentation. With this method, research results are expected to be accurate, valid, and able to represent the actual conditions of the community on the ground.

RESULTS AND DISCUSSION

The stages of community empowerment in the Probebaya program through hydroponic cultivation in RT 02, Gunung Lingai Village, Samarinda City consist of three main interrelated stages, namely the awareness stage, the capacity stage, and the empowerment stage.

1. Awareness Stage

The initial stage in the community empowerment process is awareness, which involves building residents' understanding of the potential and needs of their environment. Wrihatnolo and Dwidjowijoto (in Pujayanti, 2021) explain that this stage aims to foster awareness of rights, capabilities, and opportunities through educational activities such as socialization and discussions. The goal is to encourage internal motivation so that the community actively participates in change. This motivation aligns with Widjaja's (in Lisnawati & Patandung, 2022) view, which defines motivation as an internal or external drive to achieve a specific goal. In this context, residents' internal drive stems from their desire to utilize limited land productively, while external drive comes from facilitators and program managers who provide tangible support. Informal approaches, such as direct visits to residents' homes, are effective strategies for building rapport and initial interest. In addition, attractive training, door prizes, explanations of sales opportunities for crops, technical assistance, and support in the form of facilities and funding further strengthen residents' motivation. In line with Sutrisno's view (in Yeni et al., 2022), motivation increases when residents see actual harvests and feel the direct benefits of the activities.

Once motivation has been established, socialization activities are carried out to provide a comprehensive understanding of the program's objectives, benefits, and mechanisms. This socialization is carried out through meetings attended by speakers from BSIP, where residents have the opportunity to engage in dialogue and ask questions. Wahyuni's (2019) perspective emphasizes that effective socialization is conducted through two-way communication via discussion forums to ensure the community fully understands the program. This aligns with Rahmawati et al. (2016), who noted that two-way communication in socialization can enhance residents' interest and engagement. This is evident from the residents' enthusiasm in following the explanations and discussions, which subsequently facilitates active participation in the program. Thus, the awareness-raising stage in RT.02 not only focused on information transfer but also on building internal and external motivation that encouraged residents to voluntarily participate in the hydroponic program.

2. Stages of Capacity Building

Once the community has shown interest, the next stage is capacity building. According to Wrihatnolo and Dwidjowijoto (in Pujayanti, 2021), this stage involves efforts to improve the community's knowledge and skills through training and mentoring, so that they are able to manage activities independently and sustainably. This phase was implemented thanks to funding support from the Probebaya program. In RT 02, Gunung Lingai Village, the training was conducted directly by facilitators using a practical approach. The materials covered included basic hydroponics theory, installation assembly, planting techniques, and plant care. Marhamatunnisa (2023) noted that the training can foster positive change and self-reliance. The training also includes facilities such as rockwool, net pots, and nutrients to facilitate hands-on practice. According to Saleh (in Sartin et al., 2023), the training serves to develop new applicable skills and attitudes. Facilitators use direct demonstration methods, demonstrating the use of tools and planting techniques. This approach is in line with the opinion of Nuraeni et al. (2023), that demonstration methods are effective in forming participants' technical understanding in a concrete and visual manner.

After the training, the facilitation process is carried out continuously by the facilitators and group leaders. They regularly visit residents' gardens, hold discussions, and provide direct technical guidance. Mawardi (2025) states that facilitation is an important post-training process to ensure the sustainability of skills. In practice, facilitation is carried out actively, helping residents overcome obstacles such as leaky installations or plants that do not grow. Amali et al. (2021) mention that mentoring plays a role in shaping community initiative, participation, and independence. In the field, residents not only receive technical assistance but also begin to help each other and build group solidarity. Mustanir et al. (2019) emphasize that participatory mentoring can strengthen a sense of ownership, responsibility, and sustainability. Overall, the capacity-building phase in the hydroponic activities at RT 02 has had a tangible impact on improving residents' technical capabilities while fostering independent and collective work patterns that support the program's success.

3. Stages of Empowerment

The empowerment stage is the final phase in the empowerment process, where the community begins to independently manage hydroponic farming activities as a continuation of the activities that have been facilitated through the support of the probebaya program. Wrihatnolo and Dwidjowijoto (in Pujayanti, 2021) state that at this stage, the community is given the authority to take initiative, conduct evaluations, and carry out activities without

relying on external parties. In RT 02, Gunung Lingai Village, residents began to demonstrate independence after undergoing training and mentoring. Some residents have developed their own hydroponic installations at home, established joint work schedules, and collectively resolved minor technical issues. This independence reflects a shift from dependency toward initiative-based management and responsibility. According to Ariyani et al. (2021), independence is the ability of individuals or groups to make decisions and solve problems based on their potential. This is reinforced by Amalia and Syawie (2015), who emphasize that independence in empowerment also includes social change and the ability to creatively create local solutions. Field findings indicate that some residents have begun to prepare their own nutrition, manage harvests for household consumption, and divide tasks through internal discussions. The roles of facilitators and group leaders have also begun to diminish, only required in cases of significant technical challenges.

In addition to independence, evaluation is an important element in the empowerment stage. Nurcholis (in Noviana et al., 2023) states that evaluation is a systematic process of assessing the success of a program based on its initial objectives. In RT 02, evaluation is conducted regularly after the harvest through meetings between residents, group leaders, and facilitators. In this forum, residents discuss harvest results, technical challenges, and collaborative solutions for improvement. Discussion outcomes are documented to refine processes for the next planting cycle. Makmur (2015) emphasizes that evaluation should not only focus on final outcomes but also encompass participation, processes, and resident engagement in program implementation. RT 02 residents actively share experiences and learn from each other, making evaluation a space for collective reflection. This process strengthens collaboration among residents and demonstrates increased collective capacity in managing activities sustainably. This empowerment phase shows that residents have taken an active role as managers of hydroponic activities. They not only carry out technical practices but also contribute to evaluation and decision-making. This achievement is in line with the empowerment indicators described by Soeharto (in Hasmawati et al., 2021), namely increased awareness (power to), ability to face challenges (power over), control of resources (power within), and collective cooperation (power with).

CONCLUSION

This study shows that the community empowerment process in the Probebaya program through hydroponic cultivation in RT 02, Gunung Lingai Village, took place in a gradual and structured manner, covering three main phases: awareness, capacity building, and empowerment. During the awareness phase, residents began to understand the potential and challenges of their environment through two-way socialization conducted by the group leader and facilitators. This process was supported by informal and formal approaches that successfully built residents' interest and motivation to actively participate. The capacity building phase was carried out through training and mentoring. Practical training and direct demonstrations have improved residents' technical skills in managing hydroponic systems. Continuous mentoring from the group leader and facilitators also strengthened residents' self-confidence and collaboration among themselves. In the empowerment phase, residents began to demonstrate independence in managing the hydroponic installation, resolving technical issues, and conducting independent evaluations of activities. Active participation in evaluations also served as a space for reflection and collective learning.

This achievement reflects the success of a gradual and participatory empowerment process, in which residents have demonstrated increased awareness, skills, and responsibility through hydroponic activities supported by the Probebaya Program.

REFERENCES

Amali, L. N., Suhada, S., & Katili, M. R. (2021). Community assistance in rural areas through the development of village work plans. Jurnal Sibermas (Sinergi Pemberdayaan Masyarakat), 10(3), 478–486.

Amalia, A. D., & Syawie, M. (2015). Village independence development through the concept of empowerment: A study from a sociological perspective. Sosio Informa, 1(2), 175–188.

Ariyani, E., Dewi, A., & Aulia, H. (2021). Community empowerment programs in efforts to improve family welfare in the Sungai Andai subdistrict of Banjarmasin City. Jurnal PubBis, 5(1), 49–59.

Creswell, J. W., & Creswell, J. D. (2018). Research Design: Qualitative, Quantitative, and Mixed Methods. California: SAGE Publications.

Fauziah, L. M., Kurniati, N., & Imamulhadi. (2018). The conversion of agricultural land into tourist areas from the perspective of the application of land use principles. Journal of Notarial Law, Faculty of Law, Unpad, 2(1), 102–113.

Hasmawati, Hamid, H., & Sellang, K. (2021). Community empowerment model for the development planning of Carawali Village. Journal of Administrative Science (JIA), 9(3), 142–146.

Lisnawati, E., & Patandung, H. (2022). The influence of motivation and work ability on employee performance in the Sukabumi City Primary and Secondary Education Institution Development Association. Jurnal Ekonomak, 8(1), 36–55.

Makmur. (2015). Evaluation of the implementation of the village empowerment program (PPD) in Rokan Hulu District. Cano Ekonomos Scientific Journal, 4(1), 43–54.

Marhamatunnisa, Saraka, Winarti, H. T., & Alisalman, M. (2023). The impact of graphic design training on trainees at LKP Cendana in Samarinda City. Competence, 16(1), 1–6.

Mawardi, & Albab, U. (2025). Training and mentoring in records management for administrative staff at the Faculty of Islamic Studies, Muhammadiyah University Lampung. FUNDAMENTUM: Multidisciplinary Service Journal, 3(1), 56–76.

Mustanir, A., Hamid, H., & Syarifuddin, R. N. (2019). Empowering rural communities in participatory planning methods. Jurnal MODERAT, 5(3), 227–239.

Noviana, I., Susilo, K. D., & Haryati, E. (2023). Evaluation of community empowerment through the development of cultural tourism villages in Sendang Village, Sendang District, Tulungagung Regency. Soetomo Public Administration, 3(2), 197–208.

Nuraeni, Y., Sudiyanto, & Setiawan, A. H. (2023). Application of demonstration methods in marketplace-based training to improve product marketing skills among waste bank entrepreneurs. JIMPS: Journal of History Education Students, 8(4), 5846–5851.

Pujayanti, T. (2021). Community empowerment through the CSR program of PT PJB UBJOM PLTU Tenayan. Journal of Public Administration, 7(2), 240–249.

Rahmawati, Y. D., Purnaweni, H., & Taruna, T. (2016). Stages of community empowerment in environmental management in Cangkring Village, Karanganyar District, Demak Regency. Journal of Ecoscience, 7(4), 83–93.

Samarinda City Government. (2022). Samarinda Mayor Regulation No. 11 of 2022 concerning Technical Guidelines for the Implementation of the Community Development and Empowerment Program (Probebaya).

Samarinda City Government. (2023). Samarinda Mayor Regulation No. 4 of 2023 on Amendments to Samarinda Mayor Regulation No. 11 of 2022 on Technical Guidelines for the Implementation of the Community Development and Empowerment Program (Probebaya).

Sartin, Tayanan, B., Latue, S., Salam, M., Batuwael, T. A., Sanabuky, K., Fahira, N., Pesireron, N. D., Laka, E., Besan, Y., Aulele, P., Difinubun, M., Latumanusaite, R., Khadijah, S., Rahaded, R. M., Rada, M. U., Renngur, I. N., & Ritiauw, S. P. (2023). Training on the use of AB Mix nutrients for pakcoy cabbage (Brassica rapa L) plants for hydroponic groups in Airlouw Village. Pattimura Mengabdi (Journal of Community Service), 1(1), 17–24.

Sugiyono. (2020). Metode Penelitian Kuantitatif, Kualitatif dan R&D. Bandung: Alfabeta.

Wahyuni, D. (2019). Development of Pentingsari tourist village, Sleman Regency from the perspective of community participation. Aspirasi: Journal of Social Issues, 10(2), 91–106.

Yeni, D. F., Putri, S. L., & Setiawati, M. (2022). The influence of student learning motivation on learning outcomes at SMP N 1 X Koto Diatas. Jurnal Promosi: Jurnal Pendidikan Ekonomi UM Metro, 10(2), 133–140.