



Assistance for Leading MSME Products of JATAM MPM PDM Sukoharjo Regency in 2025

Kuswaji Dwi Priyono^{1*}, Qomarun², Dewi Novita Sari³, Basyar Ihsan Arijuddin⁴

Faculty of Geography, Universitas Muhammadiyah Surakarta^{1,3,4}

Faculty of Architecture, Universitas Muhammadiyah Surakarta²

Corresponding Email*: kdp130@ums.ac.id

Article Info:

Submitted: 21 February 2026

Revised: 14 March 2026

Accepted: 15 March 2026

Publisher: 30 April 2026

Keywords: JATAM; PDM;
MSME; PkM; Farmers.

Abstract

This community service program was implemented to strengthen the village agribusiness system through environmentally friendly cultivation, institutional strengthening, product downstreaming, and business legalization facilitation. A before-after (baseline-endline) evaluation approach was applied to measure impacts on production, economic performance, institutional capacity, and market access. Prior to assistance, partners faced moderate productivity, high dependence on chemical inputs, weak collective marketing, limited product differentiation, and inadequate financial administration. After phased mentoring, significant improvements were observed. Farmers adopted organic fertilizers and integrated pest management, reducing chemical input costs and increasing productivity from 5.2 to 5.8 tons/ha. Rice was repackaged into 5 kg and 10 kg branded products, increasing selling prices by 35% and farmer profit margins by 62.5%. Horticulture and livestock products were sorted, hygienically packaged, and labeled, expanding market access and increasing margins by 10–25%. Institutional performance improved through regular meetings, structured financial recording, and collective marketing. Overall, the program transformed subsistence practices into a sustainable, market-oriented collective agribusiness model, enhancing economic resilience and social participation within the farming community.

1. Introduction

This Community Service Program for Muhammadiyah Associations/AUM/Assisted Villages (P2M) was initiated based on an official request letter from the Chairperson of the Community Empowerment Council (MPM) of the Regional Muhammadiyah Leadership (PDM) of Sukoharjo Regency dated November 7, 2024. The collaborative team of lecturers

from the Faculty of Geography and the Faculty of Architecture, Universitas Muhammadiyah Surakarta (UMS), subsequently implemented a community service program to assist Jamaah Tani Muhammadiyah (JATAM) of PDM Sukoharjo in developing leading MSME products in Sukoharjo Regency. This assistance is expected to become a strategic collaboration that enhances the synergy among social, economic, and religious aspects embedded in Muhammadiyah's da'wah mission.

The mentoring process not only provides knowledge and technical skills but also creates opportunities to strengthen networks among MSMEs and between MSMEs and various stakeholders, including government institutions, educational institutions, and the private sector. Such collaboration significantly contributes to expanding business opportunities and fostering innovation (Agromedia, R, 2008). Through assistance covering product development, marketing, and managerial aspects, MSME products are expected to become more competitive and capable of competing in an increasingly global and dynamic market, making their leading products more recognizable and accepted by consumers (Dewoto, H. R, 2007). The mentoring also encourages MSME actors to innovate by developing new products or diversifying existing ones. This is essential to reduce dependency on a single product type and to create product line diversification. Leading products developed by Jamaah Tani Muhammadiyah are expected to be more environmentally friendly and sustainability-oriented (Harefa, D, 2020). By integrating social and environmental considerations, the program ensures that the resulting products are not only economically profitable but also beneficial to society and the surrounding environment (FAO, 1976).

Muhammadiyah established the Community Empowerment Council (MPM) based on the mission of *amar ma'ruf nahi munkar*, which is not only spiritual but also socio-transformative in nature. Its foundation includes: (1) Al-Ma'un Theology, inspired by the interpretation of Surah Al-Ma'un, emphasizing support for the poor, marginalized, and vulnerable groups, aiming to liberate society from poverty and social injustice; (2) Empowerment-based da'wah, which focuses not merely on charity but on building community capacity to achieve economic, social, and cultural independence; (3) Progressive Islam, promoting systematic and civilized social transformation oriented toward public welfare; and (4) Tajdid (renewal), which encourages reform not only in religious thought but also in social systems and

community development. MPM serves as Muhammadiyah's instrument of social da'wah to realize an empowered, independent, and dignified society in line with Islam as a mercy to all creation.

In 2025 (48th Muhammadiyah Congress period), the main focus of MPM programs includes: (1) Agrarian empowerment and food sovereignty, strengthening JATAM as the foundation of agrarian empowerment through the First National JATAM Jamboree themed "Food Sovereignty for a Prosperous Indonesia," aimed at improving farmers' welfare and national food sovereignty; (2) Capacity strengthening of cadres through the Community Empowerment Cadre School (SEKAM) to enhance local competencies in various sectors; (3) Empowerment of marginalized communities, including farmers, fishermen, laborers, the urban poor, persons with disabilities, and communities in underdeveloped, frontier, and remote areas (3T regions); (4) Innovation in empowerment models, such as TelurMoe (a healthy egg-laying poultry initiative empowering persons with disabilities) and organic farming initiatives in collaboration with educational and business sectors; and (5) Synergy with national policies, including support for the Free Nutritious Meal Program (MBG), viewed as an opportunity to strengthen the broader community empowerment ecosystem (Utaya, S, et al, 2018).

JATAM MPM-PDM Sukoharjo, established on February 2, 2025, envisions becoming a leading institution in agricultural and livestock development and community empowerment, focusing on innovation, welfare, and sustainability. Its mission includes: (1) improving efficiency and transparency in agricultural and livestock management through information technology and innovation; (2) increasing community awareness of sustainable agriculture and livestock practices to achieve food security and sustainable development; and (3) building collaborative networks among members and farmers to share knowledge, experiences, and best practices.

The specific activities carried out with the UMS community service team were based on a situational analysis concerning strengthening farmer cadres' capacity to support agricultural empowerment aligned with national food sovereignty programs. The activities generally focus on: (1) community economic empowerment, particularly in agriculture, to reduce poverty and economic dependency; (2) developing local cadres as facilitators through

training and cadre schools; and (3) organizing farmer conventions and jamborees as platforms for learning, networking, and community-based agricultural innovation (Wihartanti, L. V, 2021).

The program focuses on agricultural and livestock products in Sukoharjo that align with JATAM's role under Muhammadiyah, particularly through strengthening farmer institutions. Sukoharjo Regency has strong potential in rice fields, horticulture, and smallholder livestock. Therefore, the assistance program targets three main clusters: (1) rice (regular and organic), considering Sukoharjo's role as a rice-producing region with opportunities for differentiation such as organic, healthy, and premium packaged rice; (2) horticulture (chilies, vegetables, and local fruits), especially in Polokarto, Bendosari, and Mojolaban; and (3) laying hens and native chickens, as eggs represent a stable and widely consumed commodity that can be developed into omega or herbal eggs (Yasir, M, 2020).

However, JATAM faces several challenges in achieving food independence and improving farmers' welfare, including: (1) farmers selling raw products (unmilled rice, fresh vegetables, bulk eggs) with low margins; (2) dependency on middlemen; (3) suboptimal productivity due to high fertilizer and feed costs; (4) absence of village product branding; (5) lack of product legality; (6) weak business management and financial recording; and (7) limited market access (Djaenudin, D, et al, 2011).

Through this community service program, JATAM implements solutions including: (1) promoting community-based food independence such as mosque- or pesantren-based farming; (2) utilizing modern agricultural technology to improve productivity and efficiency; (3) developing direct distribution systems from farmers to consumers through digital marketplaces or Muhammadiyah farmer cooperatives; (4) strengthening ecological and digital-based agricultural education and training; and (5) enhancing collaboration with Muhammadiyah universities, government agencies, and other organizations (Emmyzar, et al, 1989). By addressing these challenges with appropriate strategies, JATAM PDM Sukoharjo is expected to become a driving force for food sovereignty and improved farmer welfare in Indonesia.

2. Methods of Implementation

Muhammadiyah's food sovereignty efforts must be implemented gradually and systematically, beginning with strengthening human resources, enhancing sustainable production, optimizing distribution systems, developing community-based food resilience, and advancing policy advocacy. If these stages are carried out consistently, Jamaah Tani Muhammadiyah can become a key driving force in realizing food security and improving farmers' welfare in Indonesia. In determining the program priorities of Jamaah Tani Muhammadiyah (JATAM), it is essential to consider factors such as urgency, potential impact, and resource feasibility. The following outlines the priority stages to be implemented by JATAM progressively:

2.1 Step 1: Organizational Foundation and Strengthening (Activities 1-2)

The consolidation and development of Jamaah Tani were carried out through the identification of JATAM members and the establishment of Muhammadiyah-based farmer groups in each area. Organizational strengthening was conducted through training in agricultural management, agribusiness, and farmer entrepreneurship.

- a) Training programs were provided to farmers on modern agricultural techniques, organic farming, and smart farming practices, while also educating farmers and younger generations to increase their interest in the agricultural sector.
- b) The Muhammadiyah Food Security Movement was implemented by optimizing unused land within Muhammadiyah institutions (mosques, schools, and Islamic boarding schools) for community-based agriculture. The "One House, One Garden" program was introduced to promote family-based food security.

The outputs of Phase 1 and Phase 2 activities include: (1) the establishment of a stronger organizational structure within JATAM; (2) improved education and training for Muhammadiyah farmers; and (3) the formation of mosque- and pesantren-based agricultural communities.

2.2 Step 2: Production and Distribution Enhancement (Activities 3–5)

- a) Strengthening Environmentally Friendly Agriculture, by implementing organic farming and agroecological practices to reduce dependence on chemical fertilizers.
- b) Development of the Muhammadiyah Seed Bank, aimed at ensuring the availability of superior local seeds.
- c) Muhammadiyah Agro Market (Distribution and Marketing), through the establishment of Muhammadiyah-based agricultural distribution networks via farmer cooperatives and digital marketplaces. Synergy with Muhammadiyah Charitable Enterprises (AUM) was developed to supply food products to Muhammadiyah hospitals, schools, Islamic boarding schools, and orphanages.
- d) Agricultural Zakat and Productive Waqf, by promoting agricultural zakat to support small-scale farmers and managing productive waqf land for community-based agriculture.

The outputs of Phase 2 (Activities 3–5) include increased economic independence of farmers with reduced reliance on middlemen; the effective operation of the Muhammadiyah Agro Market marketing system; and improved community-based food production that increasingly meets Muhammadiyah's internal needs.

2.3 Step 3: Food Sovereignty and Policy Advocacy (Activities 6–8)

- a) Digitalization and Muhammadiyah Agricultural Big Data

This initiative includes the development of digital platforms and marketing applications for Muhammadiyah farmers, as well as the utilization of Internet of Things (IoT) technologies, drones, and smart farming systems to improve production efficiency.

- b) Muhammadiyah Food Security Forum (Policy Advocacy)

This program involves advocating pro-farmer policies to government authorities and other stakeholders, as well as collaborating with Muhammadiyah universities to support agricultural research and innovation.

The outputs of Phase 3 (Activities 6–8) include:

- (1) economically and technologically empowered Muhammadiyah farmers;

- (2) JATAM playing an active role in shaping national food policies; and
- (3) the establishment of an independent Muhammadiyah food ecosystem that is not dependent on external parties.

3. Results and Discussion

3.1 Results of Organizational Strengthening and Enhancement

This community service program was implemented as an effort to strengthen the village agribusiness system through environmentally friendly cultivation practices, institutional reinforcement, product downstreaming, and improvement of business legality. The evaluation employed a before–after (baseline–endline) approach to measure the tangible impacts of the program on production, economic performance, institutional capacity, and market access.

Prior to the mentoring activities, partners faced several fundamental challenges. In the rice sector, average productivity remained at a moderate level, with a high dependence on chemical fertilizers and pesticides. Production costs were relatively high, while the selling price of unhusked rice and milled rice followed bulk market prices without quality differentiation. The farmer group association (gapoktan) had not yet functioned optimally as a collective economic institution; financial records were poorly managed, and marketing was conducted individually. Horticultural products (vegetables and seasonal fruits) were sold fresh without sorting or packaging, resulting in price fluctuations and vulnerability to post-harvest losses. Similarly, poultry and cattle products—including eggs, broiler chickens, and beef were marketed conventionally without hygienic packaging or village brand identity.

Following the phased mentoring process, significant changes were observed. In rice cultivation, farmers began independently producing and applying organic fertilizers and implementing integrated pest management. The use of chemical pesticides decreased, input costs were reduced, and awareness of soil health improved. Productivity increased more consistently, accompanied by improved cost efficiency. Institutionally, the jamaah-based gapoktan experienced strengthened organizational structures and clearer division of business functions. Administrative and financial record-keeping became more systematic,

and integrated planting schedules were introduced to ensure supply continuity. A joint business unit was established to manage milling, packaging, and marketing activities.

In terms of downstreaming, rice was no longer sold in bulk but repackaged into 5 kg and 10 kg branded products reflecting local identity. Packaging was designed to be more hygienic and included information such as net weight, composition, production address, and legal labeling. As a result, selling prices increased and market segments expanded to retail consumers and community-based networks. Similar improvements were applied to horticultural products through quality sorting, washing, and simple packaging using food-grade plastics or environmentally friendly labeled packaging. For certain commodities, a community-based pre-order system was introduced to minimize post-harvest losses. Poultry and cattle products were also packaged more hygienically, including standardized slaughtering practices, net weight labeling, and production date information. These improvements increased consumer trust and enhanced profit margins for farmers.

Regarding legality, partners were facilitated in preparing standard operating procedure (SOP) documents for production as a prerequisite for organic and halal certification. This process not only expanded market access but also strengthened quality discipline at the production level.

Overall, the before–after approach demonstrated improvements in productivity, cost efficiency, product value addition, institutional strengthening, and competitiveness through village branding and packaging. The program generated not only technical changes but also a transformation in mindset from subsistence-oriented production toward sustainable, market-oriented collective agribusiness. Documentation of related activities is presented in Figures 1 and 2.



Figure 1. Discussion Session on JATAM Organizational Strengthening

3.2 Results of Production and Distribution Enhancement

The implementation of this community service program generated several measurable and tangible outputs, including product innovations, learning support materials, institutional management models, and enhanced partner capacity. These outputs were not merely administrative in nature but directly contributed to increasing business value added and ensuring the sustainability of village agribusiness.

First, in terms of products and appropriate technology, environmentally friendly cultivation innovations were introduced through organic fertilizer production packages (compost and liquid organic fertilizer) that can be independently produced by farmers. In addition, an integrated pest management (IPM) system was implemented as an alternative to reduce chemical pesticide use. In the downstream sector, premium rice products were developed in 5 kg and 10 kg branded packaging, complete with label design and hygienic packaging standards.

Similar outputs were applied to horticultural commodities through quality sorting, washing, and food-grade packaging systems, as well as to poultry and cattle products through labeled meat and egg packaging that included net weight and production date information.

The appropriate technologies introduced were simple, practical, and aligned with the partners' capacity.

Second, in terms of learning support materials, training modules on environmentally friendly rice cultivation, guidelines for organic fertilizer production, and a handbook on farm business management and collective marketing were developed. These modules were complemented with visual documentation and educational field-practice videos that can be reused by farmer groups for independent learning. The availability of these materials ensures the sustainability of knowledge transfer beyond the mentoring period.

Third, regarding institutional management and organizational systems, a jamaah-based farmer group (gapoktan) strengthening model was established, consisting of production units, processing and packaging units, and marketing units. Standard operating procedures (SOPs) for cultivation, processing, and packaging were developed as a foundation for pursuing organic and halal certification. Furthermore, a simple financial recording system and production recap format were introduced to improve transparency and accountability in organizational governance.

Fourth, an important intangible outcome was the improvement of partner skills and capacity. Through training sessions, workshops, and intensive mentoring, farmers and livestock breeders enhanced their understanding of environmentally friendly cultivation practices, production cost efficiency, business management, and village-based branding strategies. Partners also demonstrated improved technical skills in sorting, packaging, labeling, and calculating production costs (Priyono, K. D, et al, 2024). Institutionally, there was increased member participation, improved discipline in record-keeping, and strengthened capacity to develop joint business plans.



Figure 2. Pro-Farmer Policy Advocacy by Muhammadiyah to Government and Stakeholders

Overall, the outputs achieved reflect a transformation from conventional production systems toward a more integrated, value-added, environmentally friendly, and market-oriented village agribusiness model. The program's impact is evident not only in improved product quality and increased income but also in the strengthened independence and long-term competitiveness of the partners.

3.3 Social and Economic Impacts of MSMEs After the Program

The program impact evaluation was conducted using a before–after (baseline–endline) approach with measurable indicators covering production, income, institutional performance, and social change. Data were collected through baseline surveys, production records, farmer group (gapoktan) financial reports, and in-depth interviews.

3.3.1 Economic Impact

Economically, the program demonstrated improvements in productivity, cost efficiency, and product value addition through packaging and village branding initiatives. In the horticulture sector, the implementation of sorting and packaging practices increased the average selling price by 15–25% compared to unprocessed bulk sales. In the poultry and cattle sectors, hygienic packaging and proper labeling enhanced consumer trust and expanded access to local markets, resulting in an estimated profit margin

increase of approximately 10–20%. The economic impacts are presented in Table 1 below.

Table 1. Comparison of Partners' Economic Conditions (Before and After the Program)

Economic Indicator	Before	After	Increase / Decrease
Rice Productivity (tons/ha)	5,2	5,8	+11%
Chemical Fertilizer Cost (IDR/ha)	3.000.000	1.800.000	-40%
Chemical Pesticide Usage (%)	100%	60%	-40%
Rice Selling Price (IDR/kg)	Rp10.000/ kg	Rp13.500/ kg	+35%
Sales Volume of 5 kg and 10 kg Packaged Rice (units/month)	0	500 pack/month	New Product
Farmer Profit Margin (IDR/season)	Rp 4 million/season	Rp 6,5 million/season	+62,5%

3.3.2 Social Impact

The economic impacts significant social changes were observed, including increased farmer awareness of environmentally friendly agricultural practices, the development of a collective working culture within jamaah-based farmer groups (gapoktan), greater member participation in deliberation and business planning processes, enhanced partner confidence in marketing village-branded products, and the establishment of community-based and local retail marketing networks. The social impact indicators are presented in Table 2 below.

Table 2. Social Impact Indicators of the Community Service Program

Social Indicator	Before	After
Regular Farmer Group (Gapoktan) Meetings	No Scheduled	1 meeting/month
Financial Record-Keeping	Not properly managed	Well-managed and documented
Marketing Collaboration	Individual	Colektif
Member Participation Rate (%)	±40% aktif	±85% aktif

3.3.3 Partner Contributions to Program Implementation

The success of the program was strongly supported by the active contributions of the partners, which included several key aspects:

- **Human Resource Contribution**

Partners dedicated their time, labor, and commitment to participating in training sessions, field practices, and mentoring activities.

- **Facilities and Infrastructure Contribution**

Partners provided demonstration plot land, training venues, basic production equipment, and packaging facilities.

- **Self-Financing Contribution**

Partners contributed financially to the purchase of packaging materials, supporting equipment, and the development of village branding through a membership fee system or collective farmer group funds.

- **Institutional Contribution**

Partners demonstrated commitment to implementing standard operating procedures (SOPs), establishing joint business units, and maintaining the sustainability of the management system that had been developed.

Overall, measurable data indicate significant improvements in both the economic and social aspects of the partners. The presentation of results in the form of tables, graphs, and visual documentation further strengthens the evidence that the community service program has generated tangible, measurable, and sustainable impacts on village agribusiness development.

4. Conclusion

The implementation of the community service program in the rice, horticulture, and poultry and cattle farming sectors was carried out in accordance with the participatory plan developed jointly with the partners. An integrated upstream-to-downstream approach including environmentally friendly cultivation practices, strengthening of jamaah-based farmer group institutions, product downstreaming through village-level packaging and branding, and facilitation toward certification resulted in measurable and tangible improvements.

Based on the before–after evaluation, productivity increased and production costs became more efficient due to reduced dependence on chemical fertilizers and pesticides. Product value addition was enhanced through premium rice packaging in 5 kg and 10 kg formats, more hygienic horticultural packaging, and proper labeling of poultry and beef products. Economically, partner profit margins increased, while socially there was

strengthened member participation and improved institutional governance characterized by greater orderliness and transparency.

The program also generated concrete outputs, including appropriate technology applications (organic fertilizer production and integrated pest management systems), training modules and technical guidelines, a jamaah-based farmer group management model, and enhanced partner human resource capacity. The transformation achieved was not only technical but also conceptual, shifting from individual farming practices toward sustainable, market-oriented collective agribusiness. Therefore, it can be concluded that the community service program has positively contributed to improving partner welfare, strengthening village institutions, and promoting environmentally friendly, value-added farming systems.

5. Acknowledgements

The authors would like to express their sincere appreciation to the Muhammadiyah Association/AUM/Assisted Village Community Service Program (P2AD), Universitas Muhammadiyah Surakarta (UMS), for the financial support and facilitation that enabled the successful implementation of this community service program.

The authors also extend their gratitude to the management and members of Jamaah Tani Muhammadiyah (JATAM), MPM PDM Sukoharjo Regency, for their active participation, collaborative engagement, and strong commitment throughout the mentoring activities. It is hoped that this synergy will continue in strengthening food sovereignty and community-based economic empowerment grounded in Muhammadiyah values.

6. References

- Agromedia, R. (2008). *Buku pintar tanaman obat: 431 jenis tanaman penggempur aneka penyakit*. Agromedia.
- Dewoto, H. R. (2007). *Pengembangan obat tradisional Indonesia menjadi fitofarmaka*. Majalah Kedokteran Indonesia, 57(7), 205–211.
- Djaenudin, D., Marwan, H., Subagjo, H., & Hidayat, A. (2011). *Petunjuk teknis evaluasi lahan untuk komoditas pertanian*. Balai Besar Penelitian dan Pengembangan Sumberdaya Lahan Pertanian.
- Emmyzar, Sudiarto, Rosman, R., Ruhnayat, A., & Suryadi, R. (1989). *Kapolaga dalam perkembangan penelitian agronomi tanaman rempah dan obat*. Penelitian Tanaman Rempah dan Obat, 5(1).

- FAO. (1976). A framework for land evaluation (FAO Soil Bulletin No. 32). *FAO-UNO*.
- Harefa, D. (2020). Pemanfaatan hasil tanaman sebagai tanaman obat keluarga (TOGA). *Madani: Indonesian Journal of Civil Society*, 2(2), 28–36
- Priyono, K. D., Setiawan, W., & Sari, D. N. (2024). Assistance in Planning Wirogunan Village Land Assets as a Progressive Village Tourism Destination in Sukoharjo Regency . *Journal of Community Services and Engagement: Voice of Community (VOC)*, 4(1), 34–45. <https://doi.org/10.23917/voc.v4i1.5451>
- Lumbessy, M., Abidjulu, J., & Paendong, J. J. (2013). Uji total flavonoid pada beberapa tanaman obat tradisional di Desa Waitina Kecamatan Mangoli Timur Kabupaten Kepulauan Sula Provinsi Maluku Utara. *Jurnal MIPA*, 2(1), 50–55.
- Utaya, S., Astina, I. K., & Handoyo, B. (2018). Kajian kesesuaian lahan budidaya tanaman obat dengan aplikasi sistem informasi geografis (SIG) di kawasan Suku Sambori Kabupaten Bima. *International Journal of Natural Science and Engineering*, 1(3), 110–119.
- Wihartanti, L. V., Wibawa, R. P., Prasetyaningrum, I., & Isharijadi, I. (2021). Strategi pemasaran jamu di era industri 4.0. *D'edukasi: Jurnal Pengabdian Masyarakat*, 1(1), 30–38.
- Yasir, M., Muharrami, L. K., Wasonowati, C., & Cahyani, L. (2020). Pengembangan kapasitas pemasaran jamu Naturna melalui inovasi teknologi berbasis website. *BAKTIMAS: Jurnal Pengabdian pada Masyarakat*, 2(4), 173–18.