PROFICIENT Community Service

Management of the Implementation of an Integrated Household-Scale Farming System to Increase Income in Situsari Village, Cileungsi District, Bogor Regency, West Java

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ABSTRACT

The conversion of agricultural land into residential areas in areas such as Situsari Village has reduced productive land, thus reducing the community's ability to meet food needs independently. Other problems faced are the low level of utilization of home yards and the lack of optimal management of household organic waste. Based on this, the Community Service Team from the Perbanas Institute carried out educational and training activities on the application of the Integrated Household Farming System or Integrated Backyard Farming. This activity integrates crop cultivation, small livestock, and organic waste processing in one mutually supportive system. The methods used include lectures, discussions, and question and answer sessions. The results of the activity showed an increase in community knowledge and motivation in implementing the Integrated Backyard Farming concept. This system provides dual benefits, namely fulfilling family food needs, reducing waste, and creating a healthy and productive environment.

I. INTRODUCTION

Situsari Village, located in Cileungsi District, Bogor Regency, is an area experiencing rapid population growth as a result of urbanization. This has resulted in an increase in the conversion of agricultural land into settlements, reducing space for household-scale agricultural activities. In 2023, there was a decrease in rice fields by 3% compared to the previous year, especially in buffer areas such as Cileungsi (BPS Kabupaten Bogor. (2023)).

Most people still do not utilize their yards productively. The available yard land is generally only used as a parking lot or storage for unused items. On the other hand, organic household waste consisting of leftover vegetables, fruits, and dry leaves is often simply thrown away, adding to the burden of waste management at the village level (Sulaeman, (2020) and Markonah, et.al.,(2024)). The available yard land is generally only used as a parking lot or storage for unused items. On the other hand, organic household waste consisting of leftover vegetables, fruits, and dry leaves is often simply thrown away, adding to the burden of waste management at the village level.

Integrated Backyard Farming (IBF) is a sustainable household farming system that combines components of horticultural crop cultivation, small livestock farming, and organic waste processing. Selliamanik, et.al., (2024). This approach can increase resource efficiency, reduce dependence on external inputs, and strengthen family food security FAO. (2014).

Community Service Activities by Perbanas Institute aim to equip the people of Situsari Village with knowledge and skills in implementing IBF through an urban farming approach. The techniques taught include vertical farming, simple hydroponics, hanging pots, small livestock farming and organic waste processing using compost methods and maggot media.

II. IMPLEMENTATION METHOD

The activity was carried out on June 20, 2025 at the Situsari Village Office, with the participation of local residents and village officials. The training was carried out through several stages: a pre-test to measure participants' initial knowledge, delivery of material on the IBF concept, and interactive discussions. This activity also involved a question and answer session to deepen understanding and answer obstacles faced by residents.

Place and Program Implementation

1. Place of implementation of the training program
   The place for implementing this community service is in Situsari Village, Jl. Swadarma Kp. Karet RT 004/001, Cileungsi, Bogor Regency, West Java
2. Time of Program Implementation
   The activities held on Friday, June 20th 2025 at 02.30 – 04.30 PM

Table 1 Schedule of Activities

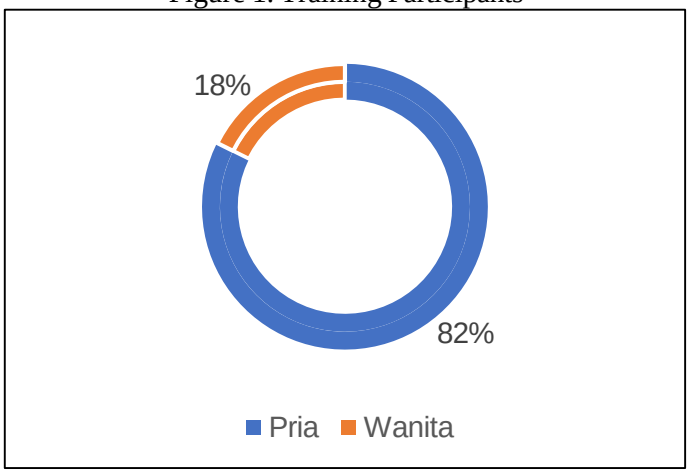
Time	Activities
10.00 – 11.00	Preparation for Departure from Perbanas Jakarta
11.01 - 12.00	Arriving at the Situsari Village Hall Office and Friendly Meeting with the Village Team

12.01 - 13.00	Break Time for Praying & Lunch
13.01 - 13.30	Event Preparation at Village Hall Office
13.31 - 14.00	Participants attend and fill in the attendance list Welcoming Participants & conducting Pre-test
14.01 - 14.10	Opening of the event by MC
14.11 - 14.25	Greetings from DP2M Perbanas Greetings from the Head of Situsari Village ICE BREAKING
14.26 - 15.00	Implementation of Integrated Farming System on Household Scale (Integrated Backyard Farming)
15.01 - 15.45	Organic Waste Processing Practices with Maggot Media
15.46 - 15.55	Question and Answer session
15.56 - 16.00	Prize giving to participants who ask questions
16.01 – 16.15	Closing and group photo
16.16 – 16.30	Giving Souvenirs to All Participants

III. DISCUSSION

Community Service Activities (PKM) with the theme "Implementation of Integrated Farming Systems on a Household Scale (Integrated Backyard Farming)" in Situsari Village had 34 training participants and were dominated by men at 82 percent as in Figure 1.

Figure 1. Training Participants

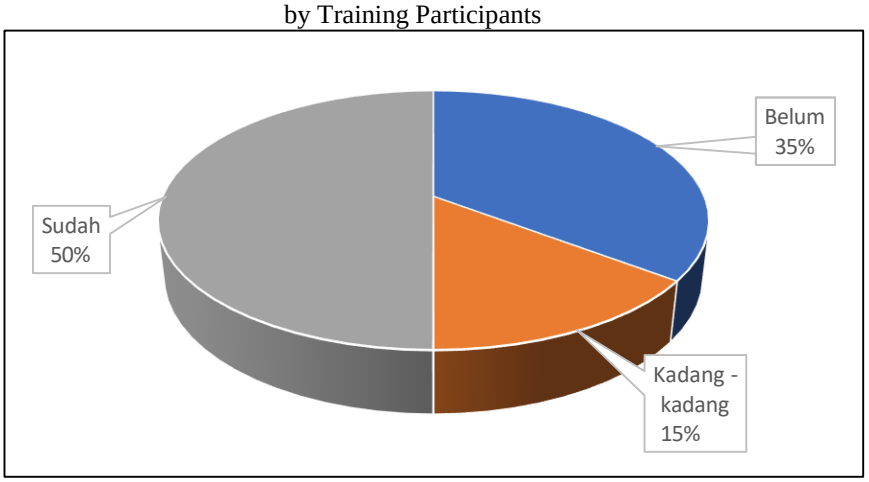


Source: Questionnaire Results (2025)

The activity shows the need to improve understanding of productive and sustainable home yard management. This is reinforced by the pre-test results in Figure 2 conducted before the training began, which showed that 50 percent had implemented an integrated farming system. Meanwhile, 15 percent of participants only occasionally implemented an integrated farming system at home. As many as 35 percent of participants had never heard of the term Integrated Backyard Farming, and even more did not

know that home yards could be optimized to become independent food sources. This shows a significant knowledge gap that needs to be bridged through direct training and mentoring.

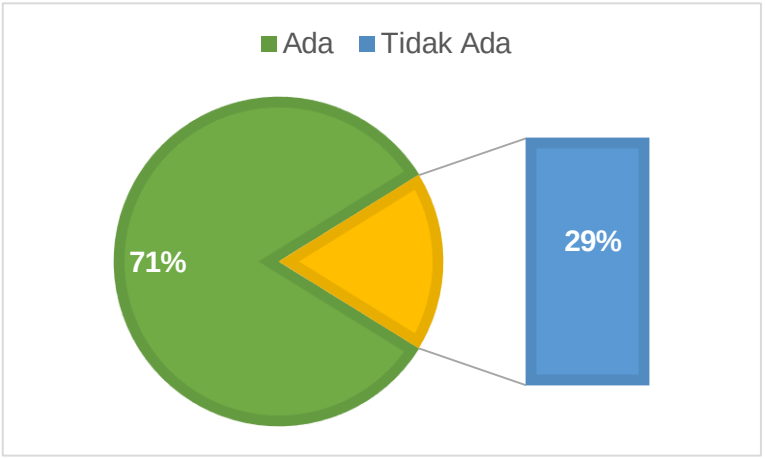
Figure 2. Implementation of Integrated Farming Systems at Home by Training Participants



Source: Questionnaire Results (2025)

As for the utilization of home yards, 71 percent of participants have done this by planting vegetables or raising small livestock around their homes, but there are still 29 percent of participants who do not have farming or livestock at home.

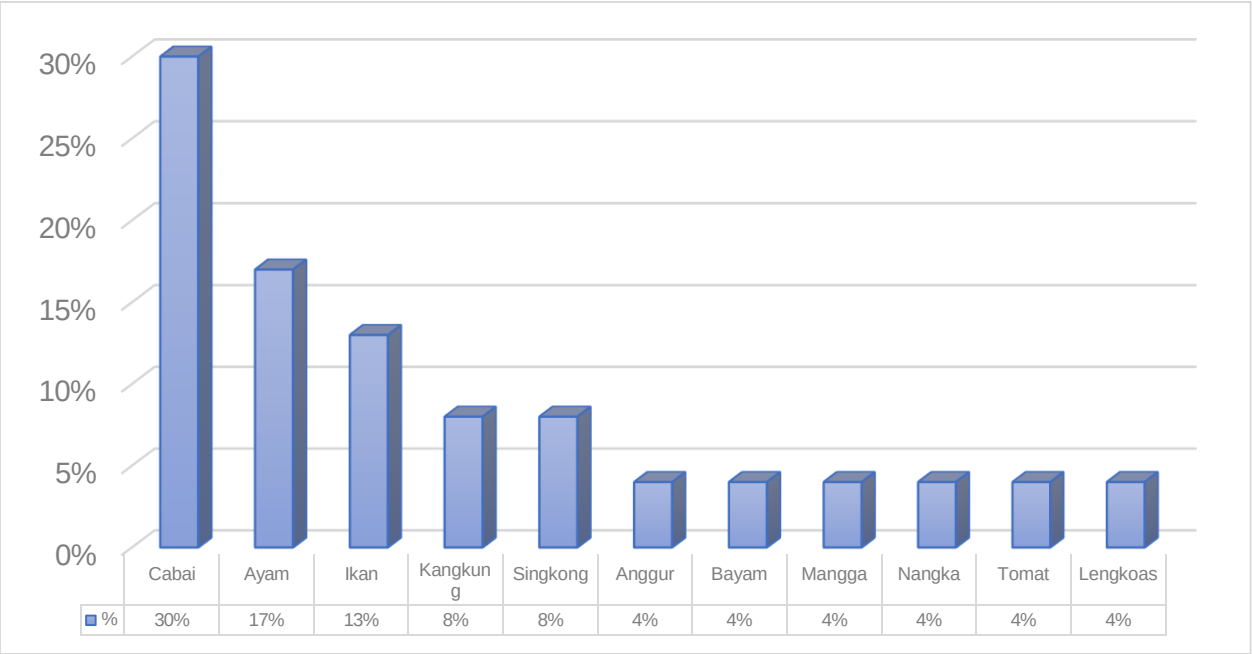
Figure 3. Farming or Animal Husbandry at Home



Source: Questionnaire Results (2025)

The types of agriculture and animal husbandry carried out by the training participants are also diverse. Figure 4 shows that the most types of agriculture carried out by the training participants are Chili Plants at 30 percent and Chicken Farming at 17 percent, while the rest are other types of vegetables and fruits. This figure is still relatively small so it still needs to be improved, especially in animal husbandry.

Figure 4. Types of Farming or Animal Husbandry at Home



Source: Questionnaire Results (2025)

In terms of organic waste management, most participants stated that they still throw away kitchen waste such as leftover food and vegetables into the trash without recycling. Very few know that organic waste can be composted simply using aerobic or anaerobic methods. In fact, some do not know the role of local microorganisms such as EM4 in the waste fermentation process. By using approaches such as vertical culture, simple hydroponics, hanging pots, or permanent beds, residents can grow fast-growing vegetables such as kale and spinach, as well as raise chickens, mini goats, or catfish in the *Budikdamber* system efficiently and environmentally friendly.

After participating in the training in the PKM activity, the participants showed increased enthusiasm for the implementation of this system. Some participants began to understand the importance of integrating livestock with plants to create a complementary nutrient cycle where livestock waste can be used as fertilizer, and vegetable waste can be used as feed. Thus, it can be concluded that this training has succeeded in increasing public awareness of the importance of utilizing home yards not only as empty space, but as a source of food, income, and environmental management solutions. The success of the implementation of this PKM opens up opportunities for the development of further programs in the form of intensive assistance or the formation of yard farmer groups in the community's household environment. This integrated agricultural approach not only answers the problem of food and waste, but is also able to create a healthier and more economically and ecologically independent environment.

Figure 5. Training Module

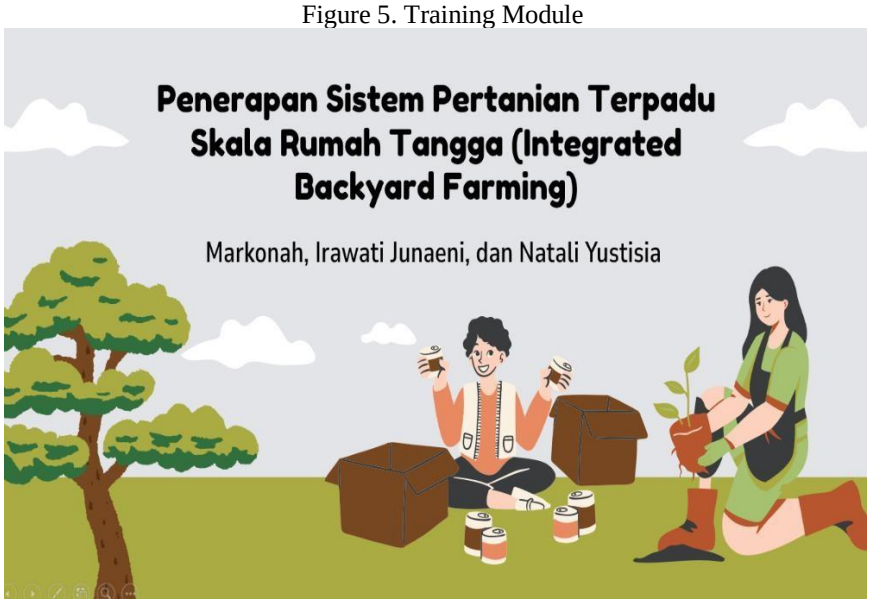


Figure 6. Training Participants at The Situsari Village Office

Figure 7. Welcoming Speech by The Head of the Situsari Village

Figure 8. Provision of Training Materials by Lecturer:
Ms.Markonah, ASAI, Ir., M.M., Dr.

Figure 10. Giving Prizes to Participants who Actively Ask Questions

Figure 11. The Lecturers Involved in the Situsari Village

IV. CONCLUSION

The implementation of Integrated Farming System on Household Scale (Integrated Backyard Farming) in Situsari Village is one of the community empowerment strategies in dealing with limited land, high dependence on external food, and household organic waste problems. The training activities carried out were able to increase the knowledge, skills, and motivation of residents in utilizing their yards productively and sustainably.

Through the integration of crop cultivation, small livestock farming, and organic waste processing, communities are introduced to an environmentally friendly, efficient, and economically valuable farming system. The positive response from residents and the follow-up plan in the form of forming yard farmer groups show that this approach has great potential to be replicated in other areas facing similar challenges. With continued support, the IBF system can be a practical solution in realizing household food security, better environmental management, and improving the welfare of village communities holistically.

LIST OF PARTICIPANTS

DAFTAR ABSENSI KEGIATAN PKM
PERBANAS INSTITUTE DAN DESA SITUSARI
JUMAT, 20 JUNI 2025

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