



FROM FARM TO TABLE: EMPOWERING WOMEN FARMERS THROUGH RED CHILI PRODUCT DOWNSTREAMING IN DALUNG VILLAGE, SERANG CITY

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Abstract

This community engagement program focuses on empowering the Women Farmer Group (Kelompok Wanita Tani/KWT) in Dalung Village, Serang City, Indonesia, by enhancing their skills in processing red chili harvests through downstream product strategies. The program involved comprehensive training sessions covering product processing techniques, attractive packaging, basic financial management, and digital marketing skills. Collaboration between Universitas Bina Bangsa students participating in Kuliah Kerja Mahasiswa (KKM) and the KWT members facilitated knowledge transfer and practical application. The initiative aims to increase the added value of red chili products, thereby boosting income for women farmers. Additionally, it supports the economic empowerment of rural women and strengthens the sustainability and independence of micro, small, and medium enterprises (MSMEs) in the area. By improving product quality and marketing reach, this program contributes to rural development and the enhancement of local agribusiness competitiveness.

Keywords: Women Farmer Group, Product Downstreaming, Red Chili, Women Economic Empowerment, Rural MSMEs

INTRODUCTION

Indonesia is recognized as one of the largest chili-producing countries in Southeast Asia, contributing significantly to regional agricultural output (FAO, 2021). Red chili is a crucial commodity for many small-scale farmers, yet price volatility in the market often leads to economic instability for producers who primarily sell raw harvests (Sari & Putra, 2020). Such fluctuations can cause substantial income losses, undermining the financial welfare and sustainability of farming households (Widodo et al., 2019).

Women play a vital role in agricultural activities, particularly in smallholder farming systems. They contribute extensively to cultivation, harvesting, and post-harvest handling (Kurniawati & Rahayu, 2018). However, women farmers frequently encounter barriers such as limited access to agricultural technology, processing facilities, and financial management skills, which restrict their capacity to add value to their products and improve household incomes (Astuti & Wulandari, 2022). Additionally, marketing strategies remain largely traditional, limiting their ability to reach wider or more profitable markets (Halim & Saputra, 2020).

The Women Farmer Group (Kelompok Wanita Tani/KWT) in Dalung Village, Serang City, is an example of such a community. Although the group actively engages in red chili cultivation, their sales predominantly depend on traditional markets, exposing them to price instability and restricted market access (KKM Universitas Bina Bangsa, 2025). To overcome these challenges, KKM Group 03 from Universitas Bina Bangsa launched the community engagement program titled “From Farm to Table: Red Chili Downstreaming by Women Farmer Groups for Household Economic

Empowerment.” The program aims to introduce downstream product processing strategies to enhance product value and open new market opportunities (Universitas Bina Bangsa, 2025).

This initiative involves training on product processing, packaging, basic financial recording, and digital marketing. Such interventions have been shown to empower women economically by increasing their entrepreneurial capacity and improving the sustainability of rural micro, small, and medium enterprises (MSMEs) (Nurhayati & Santoso, 2021). Moreover, collaboration between university students and local farmer groups fosters knowledge exchange and promotes inclusive rural development (Dewi et al., 2023).

By enhancing the value chain of red chili products, this program supports women farmers in achieving greater economic independence and resilience. It aligns with national policies emphasizing rural empowerment and the development of agricultural MSMEs as key drivers of economic growth and poverty alleviation (Ministry of Agriculture Indonesia, 2022). Ultimately, empowering women through capacity-building in product downstreaming can contribute to the sustainable development of agricultural communities in Indonesia.



Figure 1 Group photo of the community service team in the form of KKM

LITERATURE REVIEW

Women's Economic Empowerment in Agriculture

Women's economic empowerment in agriculture is vital for enhancing household welfare and driving rural economic development. Empowerment involves increasing women's technical skills, access to resources, and strengthening their roles in the agricultural value chain. When empowered, women transition from merely labor contributors to independent entrepreneurs who manage and develop agricultural products effectively. Economic empowerment emphasizes women's control over production resources and managerial capabilities to achieve financial independence and sustainability (Kabeer, 2012; Malhotra, Schuler, & Boender, 2002).

Agricultural Product Downstreaming and Value Addition

Downstreaming agricultural products refers to processing raw agricultural outputs into higher-value products through production, packaging, and marketing stages. This strategy aims to increase the economic value of products and broaden market access. Value addition enhances the

competitiveness of local products and raises farmers' income, especially for women groups involved in processing. The adoption of appropriate technology and digital marketing plays a crucial role in strengthening downstream products' market presence, enabling small producers to reach wider consumers effectively (Porter, 1985; Kotler & Keller, 2016).

METHODS AND PROSEDUR

This community engagement initiative was carried out using a Participatory Action Research (PAR) approach, which emphasizes the active involvement of the community members in all phases of the program, promoting shared learning, capacity building, and sustainable development. The PAR framework ensures that the Women Farmer Group (Kelompok Wanita Tani, KWT) in Dalung Village is not just a recipient of assistance but an active partner in identifying problems, designing solutions, and implementing improvements. The program was implemented through several stages, as detailed below.

1. Initial Observation and Potential Mapping

The initial stage involved comprehensive field visits conducted by the Kuliah Kerja Mahasiswa (KKM) students from Universitas Bina Bangsa. These visits took place directly on the agricultural plots managed by the KWT members. The primary objective was to observe existing farming practices, product handling, and marketing activities. The students engaged with group members through informal interviews and discussions to identify specific challenges faced in processing and marketing red chili products. Potential opportunities for value-added product development were also mapped during this phase, including possibilities for product diversification and improved packaging. This initial assessment laid the foundation for designing training modules tailored to the actual needs and capacities of the women farmers.

2. Technical Training on Product Downstreaming

Following the initial assessment, a series of technical training sessions were organized to enhance the practical skills of KWT members in downstreaming red chili products. These sessions focused on the production of several value-added products, including bottled chili sauce, dried chili flakes, and chili powder. Emphasis was placed on hygienic and safe processing techniques suitable for micro-scale production to ensure product quality and consumer safety. The training included step-by-step demonstrations, the use of locally available materials, and discussions on quality control measures. Participants were encouraged to practice the techniques hands-on, fostering confidence and competence in producing market-ready chili products.

3. Managerial and Marketing Training

To complement the technical skills, workshops on managerial and marketing aspects were conducted. These sessions covered essential topics such as basic financial literacy, with a focus on

calculating the Cost of Goods Sold (COGS) to enable members to understand their production costs and set profitable selling prices. Additionally, participants were introduced to digital marketing strategies to expand their market reach. Training included practical use of popular digital platforms like WhatsApp Business and Instagram, where members learned to create product listings, communicate with customers, and promote their products effectively online. This training aimed to equip women farmers with the knowledge to manage their businesses independently and adapt to the increasing digitalization of marketplaces.

4. Product Development Mentoring and Evaluation

Throughout the implementation period, KKM students provided continuous mentoring and hands-on assistance in product development activities. This involved direct support in practicing production techniques, documenting processes, and troubleshooting any issues encountered. Collaborative evaluation sessions were held regularly with KWT members to monitor progress, discuss challenges, and identify areas needing improvement. Feedback from these sessions informed subsequent training adjustments and problem-solving approaches. This iterative process ensured that the program remained responsive to the community's evolving needs and strengthened the KWT's capacity to sustain product development efforts beyond the program's duration.



Figure 2 Implementation of Community Service activities from discussions to activity results

RESULTS OF ACTIVITIES AND DISCUSSION

Results of Activities

Enhancement of Product Processing Capabilities

KWT members acquired practical skills in transforming raw red chili into processed products, including bottled sambal, chili powder, and dried chili. These products offer longer shelf-life and higher market value compared to raw chili. Key aspects of the training included simple sterilization techniques and the selection of cost-effective yet attractive packaging materials.

Understanding Cost of Goods Sold (COGS) and Pricing Strategy

Many micro-entrepreneurs within KWT lacked awareness of comprehensive production cost calculations. Simulation exercises on COGS were conducted, covering raw material costs, labor, and overhead. The training resulted in improved comprehension among participants regarding the importance of setting sustainable pricing strategies rather than merely following fluctuating market prices.

Basic Financial Recording Practices

The financial literacy component introduced a simple daily cash book system, enabling participants to monitor business cash flow effectively. Additionally, digital tools such as BukuWarung and Akuntansiku applications were introduced to facilitate easier financial management for micro-businesses.

Digital Marketing Strategy Implementation

KWT members were trained to utilize digital platforms, specifically WhatsApp Business and Instagram, to broaden their market reach. The training included practical exercises on creating digital catalogs, writing persuasive product captions, and storytelling techniques. Promotional strategies such as seasonal campaigns (e.g., Eid, Independence Day) and free product testers were also explored to increase local community engagement.

Immediate Impact of the Program

Evaluation results indicated a significant improvement in KWT members' understanding of product processing and basic business management. The promotion of KWT products through social media platforms began to attract interest beyond their immediate community. Furthermore, participants expressed high enthusiasm and readiness to sustain and expand their entrepreneurial activities.

DISCUSSION

The initiative demonstrated that targeted capacity-building programs focusing on product downstreaming and digital literacy can significantly enhance the economic resilience of women farmers in rural areas. By equipping KWT members with practical skills in product innovation, cost management, and online marketing, the program fostered the development of community-based MSMEs that are adaptive and market-oriented.

These findings align with previous studies emphasizing the importance of downstreaming agricultural products as a strategy to stabilize farmers' income and mitigate market risks (Sari, 2021). Moreover, integrating digital platforms into MSME operations proves crucial in the digital economy

era, especially for rural entrepreneurs who previously had limited market access (Kementerian Koperasi dan UKM, 2022).

This program also highlighted the necessity of ongoing mentoring and participatory evaluation to ensure sustainable progress. Future initiatives should consider involving broader stakeholder collaborations, such as local cooperatives and government support programs, to scale up the impact and sustainability of women-led rural enterprises.

CONCLUSION

The “From Farm to Table” community engagement program successfully enhanced the capacity of the Women Farmer Group (KWT) members in Dalung Village in processing and downstreaming red chili products. By focusing on product diversification, improved packaging, basic financial literacy, and digital marketing, the program empowered women farmers to add value to their harvests and reach broader markets. This comprehensive approach contributed significantly to increasing household incomes and supporting the growth of independent, community-based micro, small, and medium enterprises (MSMEs). The collaboration between university students and local farmers fostered effective knowledge transfer and skill development, enabling sustainable business practices. These efforts highlight the importance of grassroots-level interventions in rural areas, especially amid the rise of the digital economy. By equipping women with modern entrepreneurial skills and digital tools, the program promoted economic resilience and self-reliance within the community. Overall, this initiative serves as a model for empowering rural women and strengthening local agribusinesses.

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