

Strengthening and Facilitating Community Groups of The Dewata Orchid Program to Address Agribusiness Issues of Siamese Tangerines in Air Talas Village, Muara Enim Regency, South Sumatra

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ABSTRACT

Since the transmigration program to Air Talas Village, Muara Enim Regency, in 1987, the majority of the community has been cultivating Siamese tangerines (*Citrus tangerina*). As a result, this village is known as a producer of Siamese tangerines, with an annual production exceeding 300 tons. However, this high production has yet to be matched with good sales, leading to an oversupply and a decline in selling prices. The presence of Citrus Vein Phloem Degeneration (CVPD) disease poses a threat to tangerine production as it can degrade the quality of the fruit. This situation can reduce the income of farmers and women's groups processing Siamese tangerine derivative products. These conditions prompted the authors' team to initiate the Air Talas Tourism Village Agribusiness Program (Anggrek Dewata) to assist the village community in cultivating Siamese tangerines and marketing their processed products. In its second year, Anggrek Dewata is strengthening the beneficiary groups, namely the Tunas Hijau Farmers Group and the Subur Makmur Women's Farmers Group, to address the agribusiness issues of Siamese tangerines.

Keywords: Tangerines Agribusiness, CVPD, Support Groups, Anggrek Dewata

1. Introduction

The concept of community development has long been applied in Indonesia. Most initiatives have successfully improved various aspects of community life, including the economy, social conditions, health, and the environment. However, some have inadvertently created new problems, such as poverty. According to Korten (1987), community development focused on economic growth has not only caused various forms of social inequality but also led to other issues like hedonism, increased community dependence on centralized bureaucracy, and the erosion of family and kinship values.

Considering the above conditions, community development programs must meet the real needs of the broader community. This requires conducting a genuine needs analysis rather than merely compiling a list of short-term wants. Community development should involve efforts to enhance participation and a sense of ownership in the programs implemented and include elements of community empowerment (Zamhariri, 2008).

In the era of reform, there has been a paradigm shift in development roles, where the government is no longer seen as the "provider" but as the "enabler." The role of an enabler means that all development efforts should be based on the strengths and capabilities of the community itself, implying less reliance on government assistance. In its function within community development, the government can also be supported by stakeholders, including state-owned enterprises (SOEs), the private sector, and the community.

2. Literature Review

The formation of groups is crucial in the development of community development programs. Groups consisting of potential youth and women in the village enhance community solidarity and cooperation and also introduce innovations and ideas that are quickly and easily controlled. The capacity of these groups is enhanced so that, eventually, the members will be able to design their programs that suit the conditions and interests of the surrounding community (Suprijadi, 2018). This group approach is the most effective and most efficient in terms of resource use.

When developing groups, it is important to improve the abilities or capacities of group members so that discussions within the group can proceed efficiently. Enhancing group members' capabilities is expected to go hand in hand with the group development process, as group development serves as a vehicle for community development.

According to Mencher (1972), if a group engages in activities without going through the process of developing its members' capacities, the group members tend to get involved in work that "appears" productive but is not actually substantial. In such groups, some members may perceive a divide, believing some members are genuinely good while others are genuinely bad. This inefficiency in group activities can lead to potential conflicts and division among group members. Conversely, suppose a group undergoes a process of capacity development for its members. In that case, all members can perform substantial work and are committed to taking action rather than merely adapting to situations or accepting unresolved conflicts among the members.

Air Talas Village is a Trans Bali Village, where in 1987, the majority of residents were migrants from Less Village, Buleleng Regency, Bali. They not only brought Balinese culture to South Sumatra but also introduced Siamese tangerine seedlings from their homeland, which proved suitable for cultivation in Air Talas Village. The resulting Siamese tangerines have a sweet taste and are relatively large compared to typical Siamese tangerines. The village's tangerine groves can be harvested three times a year, yielding between 100 to 300 tons of tangerines annually. This has made Air Talas Village known as the largest producer of Siamese tangerines in Muara Enim. The tangerines are sold not only as fresh fruit but are also processed by women's groups into various derivative products. Thus, Air Talas Village has significant potential to become a tourist village.

Despite the abundant harvests, the tangerines have yet to be optimally utilized (lacking product diversification), leading to a decline in the selling prices of the tangerines and their processed products. This situation is exacerbated by the threat of Citrus Vein Phloem Degeneration (CVPD), a bacterial disease affecting the phloem vessels of tangerine plants, which has been lowering the quality of the tangerines in recent years.

In response to these conditions, PT Pertamina EP Limau Field, a stakeholder in Muara Enim, has proposed a solution through the planning of the Air Talas Tourism Village Agribusiness Program (Anggrek Dewata). This program involves managing the tangerine groves using an integrated farming system. Through this program, the community is assisted in the cultivation, processing, and marketing of Siamese tangerines, enabling them to maximize their potential.

3. Methodology

3.1. Research Design

The methodology employed in this research is qualitative, aiming to provide a detailed explanation of social phenomena occurring within the community. According to Creswell (2014), qualitative research is an approach used to gain an in-depth understanding of phenomena through interpretation and descriptive analysis. In this context, qualitative research utilizes both primary and secondary data gathered from focus group discussions and internal company reports, such as social mapping, implementation reports, and other relevant documents supporting this study.

Following the analysis of the qualitative data, PT Pertamina EP Limau developed and planned the Anggrek Dewata program to address the issues faced by the community in Air Talas Village through participatory activities. Some of the identified problems include the suboptimal marketing of Siamese tangerine derivative products, leading to an oversupply of the harvest, and the threat of CVPD disease

affecting the quality of the tangerines. This journal will discuss the progress of Anggrek Dewata in its second year, focusing on institutional strengthening and improving group facilities. This includes training on integrated pest and disease management, social marketing training, and the establishment of a bacterial research center for farmers.

4. Results and Discussion

4.1. Results

4.1.1. Program Implementation

The Anggrek Dewata program began in 2022 and is planned to conclude in 2026. At its inception, the company divided the program into two sub-programs, each implemented by a main group with distinct focus areas. These sub-programs are:

1. Organic Siamese Tangerines Cultivation (Bu Jusi): Managed by the Tunas Hijau Farmers Group, focusing on the cultivation of organic Siamese tangerines.
2. Air Talas Village Women Managing Tangerines (Bude Arta Maju): Partnering with the Sumber Makmur Women's Farmers Group (KWT), this sub-program focuses on village women's processing and management of Siamese tangerines.

Currently, this program has 40 beneficiaries. Each year, Anggrek Dewata's activities are monitored and evaluated. This process is crucial for tracking the program's progress and ensuring it remains aligned with the planned objectives.

A. Cultivation of Organic Siamese Tangerines (Bu Jusi)

The core activities within the Bu Jusi Sub Program aim to assist tangerine farmers in Air Talas Village in combating plant disease threats. Through a series of sustainable organic farming activities and several effective innovations, Bu Jusi is expected to contribute to increasing farmers' production and positively impact the social, economic, environmental, and cultural aspects of the local community.

Over the past two years, the Tunas Hijau Farmers Group has continuously developed its activities to meet the needs of tangerine farmers. These activities include:

- Promotion of Disease-Free Certified Tangerine Seeds: Conducted from February to May 2023, this initiative aimed to educate beneficiaries about disease-free certified tangerine seeds and the methods for selecting and caring for these seeds. The goal was to inform the community about the importance and contribution of disease-free seeds to sustainable agriculture development.
- Formation of a Plant Pest Control Task Force: This task force was established in response to the CPVD (Citrus Vein Phloem Degeneration) plant disease, which deteriorates the quality of tangerines and damages the land due to farmers' prevalent use of chemical fertilizers. The task force monitors and guides farmers in using *Trichoderma* sp. bacteria to control CPVD and organic fertilizers utilizing local microorganisms (MOL). This activity commenced in May 2023.
- Orchard Sanitation: Conducted routinely once a month since May 2023, this activity includes plant maintenance, soil management, organic fertilizer application, fruit thinning, and pest control. The objective is to ensure that tangerine plants grow in optimal conditions and to monitor the growth of weeds and wild grasses that could impede growth. Sanitation is crucial to maintaining the quality and quantity of tangerine production in Air Talas Village.
- Plant Disease Control Training: Held in May 2023, this training aims to provide understanding and skills in plant disease control. The training covers various aspects, such as disease identification, effective control techniques, and preventive measures.
- Plant Lab Testing: This activity analyzes nutrient elements and fungal/bacterial content. The goal is to understand the nutrient composition (nitrogen, phosphorus, and potassium) contained in *Trichoderma* sp. bacteria and evaluate its effectiveness in controlling CVPD disease in tangerine plants in Air Talas Village. The results of this bacterial testing are expected to be considered in developing more effective disease control strategies.

- Construction of Production Facility: The Production House, built in May 2023, serves as a study center for Trichoderma bacteria as a solution to the CVPD disease threat. This bacterium is used due to its antagonistic properties against CVPD-causing pathogens. Besides Trichoderma bacteria, this facility is also used for MOL products for organic fertilizer production.

B. Women of Air Talas Village Manage Tangerines (Bude Arta Maju)

The core activity of the Bude Arta Maju sub-program is to process sour Siamese tangerines (affected by CVPD) into valuable derivative products such as tangerine pies, tangerine jam, and tangerine syrup. The entire sub-program addresses the production decline faced by the Subur Makmur Women's Farmers Group (KWT) due to the low yield of tangerine produced by the group. Other challenges include competition in the external market due to delayed HALAL certification and limited market reach. The activities conducted under Bude Arta are as follows:

- Siamese Tangerine Management Training (Product Diversification): Held in May 2023, this activity focuses on processing tangerines into various derivative products. Through this training, the group is expected to optimize the use of sour tangerines to be sold and increase their income. Previously, sour tangerines harvested were considered waste and had no significant economic value.
- Social Market Training: This activity includes training in creating creative content, public speaking, and packaging to enhance the capacity of Subur Makmur KWT members and help communicate and market the processed products they produce. Conducted in May 2023, this training aims to address the challenges tangerine product producers face in accessing broader markets. The group is taught to use social media for marketing purposes and improve public speaking skills to communicate when marketing their products effectively.
- Business Incubator: Designed to facilitate group members' business development, this activity includes training in business management, business plan development, market analysis, and understanding legal and regulatory aspects related to business. Group members also have access to collaborate and share experiences with fellow members. They receive guidance from experts in various business fields.

4.1.2. Monitoring and Evaluation

Implementing the Tunas Hijau Farmers Group and the Subur Makmur Women Farmers Group (KWT) demonstrates a high commitment to maintaining orderly and structured governance through routine activity and financial record-keeping practices. This recording process is integrated as an inseparable part of the group's internal management system, aiming to ensure high transparency and accountability in every aspect of the group's activities. Thus, consistent record-keeping and reporting practices support better resource management and efficiency within the group's activities.

Anggrek Dewata was developed to enhance community welfare, especially in economic terms, increase social cohesiveness, and preserve the environment. Some positive impacts of strengthening and facilitating the group in Anggrek Dewata include:

- Increased Income for Tangerine Farmers and KWT Members

Previously, to combat CVPD pests, farmers used twice the amount of chemicals, resulting in an instant but short-lived tangerine production. With the Bu Jusi sub-program, the capacity of tangerine farmers in Air Talas Village has increased through organic farming practices that no longer require chemical fertilizers, thus making farming costs more efficient. The efficiency of organic farming practice is evidenced by the monthly expenditure of farmers on fertilizers, amounting to Rp 2,917,000/month, while the income from sales only reached Rp 2,250,000/month. The innovation of Trichoderma has solved the farmers' problem by reducing the expenditure on inorganic fertilizers by Rp 1,416,000/month, as they switched to using Trichoderma to combat CVPD pests. Consequently, farmers' income increased to Rp 3,750,000/month from the previous Rp 2,250,000/month.

Similarly, the women members of KWT Subur Makmur have been educated on utilizing sour tangerines through Bude Arta. These tangerines were previously discarded or considered waste and are now processed into valuable products such as tangerine pies, tangerine jam, and tangerine syrup. These Siamese tangerine

derivative products have become well-known in Muara Enim Regency, offering the potential to expand the market and increase product sales. The derivative products also impacted the economy of KWT members, with an average income of Rp 1,600,000/month per member.

- Increased Social Cohesiveness

Through strengthening the group in Anggrek Dewata, social cohesiveness among the Air Talas Village community has become more robust. The cohesiveness is seen in the behavioral change in the Tunas Hijau farmers group, who have begun working together to manage CVPD pests. Initially, they addressed plant disease and pest problems using inorganic methods, such as NPK45. Now, they use *Trichoderma* sp. to combat plant fungi. The formation of the Integrated Pest Control Task Force has helped farmers obtain education and socialization related to *Trichoderma* sp.

Furthermore, the most notable social impact is the Bude Arta Program, aimed at the women of KWT Subur Makmur. This program has increased women's role and involvement in agricultural and business activities. Thus, the Anggrek Dewata Program can help empower the local community by enhancing their independence and participation in economic activities.

- Environmental Preservation

This program raises environmental awareness among farmers and the local community about environmental conservation and sustainable farming practices. Anggrek Dewata encourages farmers to adopt organic farming practices, use *Trichoderma* sp. bacteria for plant disease control, and reduce dependence on chemical pesticides, helping maintain soil and water quality and reduce environmental pollution. Additionally, by utilizing household food waste for *Trichoderma* sp. media, compost, and MOL, this program helps sustainably manage organic waste. It is recorded that 16.8 tons of organic waste in Air Talas Village have been processed. This organic waste management also reduces carbon emissions by 5.651 tons of CO₂eq.

5. Conclusion

The strengthening of groups undertaken by Anggrek Dewata in Air Talas Village has been relatively easy to implement. As a Balinese transmigration village, the spirit of cooperation, or "gotong royong," as a form of social capital is still evident in the community. The community empowerment program has yielded satisfying results due to the active participation and engagement of the community and the institutions involved, such as the women's farming group and the tangerine farmer's group. These groups are highly willing to learn, grow, and consistently remain solid.

Based on data analysis, the total community satisfaction index regarding the quality of the Anggrek Dewata Program's implementation falls under the "Very Good" category, with a conversion index of 86.07% and an index of 3.44. The score indicates that Anggrek Dewata has effectively addressed the community's needs and challenges in Siamese tangerine agribusiness. Additionally, the strong performance of Anggrek Dewata has garnered positive responses from the village government, evidenced by the issuance of a decree (SK) mandating the use of organic fertilizers in tangerine farming activities, as stated in letter number 440/3/2022.

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