

## Empowerment Model for Coffee Farmers in Dogiyai Regency, Papua: Effective Strategies for Capacity Building



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**ABSTRACT:** This study emphasizes the necessity of empowering coffee farmer organizations to improve agricultural capacity in Dogiyai Regency, Papua. However, this empowerment has yet to be optimized due to various restrictions. The study is based on the community empowerment theory, which covers enabling, strengthening, safeguarding, supporting, and maintaining elements. The research method adopted is qualitative, with a descriptive focus. The data were gathered by observation, interviews, and documentation with 25 informants. Data analysis involved data reduction, presentation, and verification. The findings demonstrate that local government policies prioritize infrastructure over improving farmer groups' capacities. This is shown by the low level of support for the community's potential and the culture of coffee farmer associations.

Furthermore, a lack of problem-solving knowledge and farmer groups' confidence are hurdles. Local government protection is inadequate, and coffee grower groups face discrimination. The absence of helpful advice and a favorable environment for farming endeavors impedes effective empowerment. The proposed empowerment model entails providing researchers and extension services, helping with an emphasis on enabling aspects, altering knowledge, attitudes, and abilities, and boosting production and revenue. The goal is to empower and improve the welfare of coffee farmer groups in Dogiyai Regency.

**KEYWORDS:** empowerment, coffee farmer groups, empowerment model, agricultural capacity, local government policy.

### INTRODUCTION

Dogiyai Regency's aims for developing its natural resource potential are outlined in regional regulation No. 5 of 2018, which governs the Medium-Term Regional Development Plan for 2017-2022. This plan integrates the Regent's vision and objective, with one mission focusing on improving the regional economy and community welfare through people-centered economic development and community-benefiting investment (Dogiyai Regency Regional Regulation Number 5 of 2018). Economic growth in Dogiyai seeks to provide broad possibilities and access for all community members, particularly indigenous Dogiyai and local communities, to participate in production, consumption, and distribution activities to improve welfare (Bappenas, 2020).

In 2016, the forestry sector contributed 3.58% to Dogiyai's Gross Regional Domestic Product. The majority of Dogiyai's forest land is dedicated to restricted production forests (54.35%), natural reserves, and conservation areas (21.96%) (Dogiyai Regency Central Statistics Agency, 2017). Dogiyai's principal plantation crops include coconut, palm oil, cocoa, coffee, cloves, sugarcane, kapok, cinnamon, and red fruit, accounting for the most significant acreage and production. In 2016, the coffee plantation area was 150 hectares, producing 7.5 tonnes, while the red fruit plantation area was 46 hectares, yielding 2,300 tonnes. Coffee in Dogiyai can generate local money, with an average annual growth rate of 15.42% between 2013 and 2016 (Dogiyai Regency Regional Financial and Asset Management Agency, 2017).

Dogiyai's climate and soil features make it perfect for cultivating Arabica coffee (Hulupi, 2019). In 2009, the Arabica coffee plantation area was 2,134 hectares, with a dry bean production of 970.44 tonnes. Unregulated tree branches, variable tree heights, narrow planting intervals, dense shade trees, and unmanaged weeds are among the barriers to coffee cultivation in Dogiyai. These issues originate from a lack of awareness and support from appropriate agencies. The younger generation in Dogiyai is unwilling to develop coffee, and inherited coffee plantations are frequently abandoned (Wahyuni & Santoso, 2021). Despite Dogiyai's long history of coffee cultivation, productivity is low, and conventional processing methods rely on outdated equipment and manual procedures (Technology Assessment and Application Agency, 2020).

Dogiyai, a regency established in 2008, has 4,237.4 km<sup>2</sup> with ten districts and 79 villages (Dogiyai District Central Statistics Agency, 2019). It has considerable potential for agricultural development, particularly in coffee, red fruit, and orchids. However, problems such as poorly managed government programs, limited marketing outlets, and a lack of established operational

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methodologies stymie agricultural development. Better access to resources, facilities, and financing is required, as is the growth of coffee plantation areas in Kamuu and Mapia (Dogiyai Regency Government, 2021).

The fundamental purpose of this study is to create a paradigm for improving coffee growers' ability to become more empowered. This includes identifying current challenges faced by coffee farmer groups in Dogiyai Regency, evaluating the effectiveness of existing local government policies in assisting coffee farmers, developing strategies to improve their knowledge, skills, and confidence, proposing a comprehensive empowerment model to boost productivity and income, and ensuring long-term welfare and empowerment. Farmers are selling raw coffee, red berries, and orchids, resulting in price fluctuations and losses. Future efforts should concentrate on refining these commodities into higher-value products.

Empowerment theory stresses giving individuals and communities the resources, opportunities, and support to take charge of their lives and actively participate in development (Narayan, 2002; Samah & Aref, 2011). Economic, social, political, and psychological variables should all be considered when developing empowerment models (Alsop et al., 2006; Mosse, 2020; Kabear, 2005). An integrated co-productive approach that includes both top-down and bottom-up approaches has been proposed as a comprehensive framework for long-term empowerment (Sánchez-Betancourt & Vizcarra-Bordi, 2021). This model emphasizes community and institutions' active participation, supporting collaboration, capacity building, and shared decision-making (Haugaard 2012; Zimmerman 2000). Successful empowerment initiatives necessitate a holistic approach that addresses the varied nature of poverty while enabling local communities to participate in development actively (Sachs, 2005; Alkire & Deneulin, 2009).

### RESEARCH METHODS

This study uses qualitative approaches to assess the status of natural things, with the researcher serving as the primary instrument. Aside from that, this study uses descriptive methodologies to characterize the situations or phenomena systematically and accurately under investigation. Literature reviews, interviews, observations, and recordkeeping are some data collection strategies used. FGDs and interviews were held with a variety of key informants, including the Regent of Dogiyai Regency, department heads, section heads, section heads, field heads, coffee farmer groups from various districts, foundation managers, and Modio and Freansiscus Coffee managers in Dogiyai Regency. Observations are conducted by meticulously recording every finding in the field and assessing them immediately after observation to ensure data consistency and reliability. Documentation includes gathering papers about legislation and regulations, media stories, and other information about strengthening coffee farming organizations in Dogiyai Regency. This research is being conducted in Dogiyai Regency, Papua Province, emphasizing empowering local coffee farmer groups.

### RESULT AND DISCUSSION

#### Results

Based on research results, empowering coffee farmers in Dogiyai Regency includes five main aspects: enabling, strengthening, protecting, supporting, and maintaining. Enabling focuses on creating an atmosphere that promotes the development of community potential. Strengthening aims to increase farmers' knowledge and abilities in overcoming problems and meeting their needs. Protection is directed at protecting weak groups of farmers from discrimination and exploitation. Support includes guidance and technical support to carry out their role as coffee farmers. Maintenance focuses on maintaining conditions conducive to the sustainability of coffee farming.

**Table 1. Program and Expenditure Standards for Empowering Coffee Farmers 2022 in Dogiyai Regency**

Aspect	Program	Output	Expenditure Standard (IDR)
Possibility	Provision of agricultural production facilities	Availability of adequate production facilities	2,700,000,000
Strengthening	Training and workshops	Increasing farmer knowledge and skills	1,800,000,000
Protection	Monitoring and advocacy	Protection for farmer groups is weak	1,500,000,000
Support	Monitoring and advocacy	Protection for farmer groups is weak	2,048,000,000
Maintenance	Infrastructure improvements	Adequate and sustainable infrastructure	2,000,000,000

**Source:** Dogiyai Regency Regional Financial and Asset Management Agency. (2023).

Although the programs and budget allocations detailed in the table cover essential aspects of empowering coffee farmers, program implementation and effectiveness still need improvement. Interview results show that the existing budget is insufficient or

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distributed optimally. The local government needs to evaluate and improve program implementation to ensure that the funds allocated reach the target and have a significant positive impact on coffee farmers in Dogiyai Regency.

This research identifies several main challenges faced by coffee farmers in Dogiyai Regency. These challenges include farmers' lack of knowledge and skills, limited access to resources and funding, and inadequate infrastructure. Apart from that, the marketing of coffee products is still hampered by difficult access and unstable prices. The younger generation is less interested in coffee cultivation, causing less than optimal workforce regeneration.

The interviews with various informants, including the Regent, heads of departments, and coffee farmers, revealed that regional government programs are still not well-targeted and poorly coordinated. The capital assistance and technical support provided have not been able to overcome the problems faced by coffee farmers. Farmers also face obstacles in accessing competitive markets and obtaining quality seeds and fertilizer. Some of the main issues found were:

1. **Lack of Knowledge and Skills:** Many coffee farmers still use traditional methods in cultivating and processing coffee. This is caused by insufficient training and technical guidance from relevant institutions. Limited knowledge about modern cultivation practices, pest control, and post-harvest processing causes low productivity and poor coffee quality.
2. **Limited Access to Resources and Funding:** Coffee farmers experience difficulty in accessing the capital and resources needed to increase productivity. Financial assistance from the government and financial institutions is still limited and distributed unevenly. Restricted access to superior seeds, fertilizer, and agricultural equipment is also an obstacle in developing coffee plantations.
3. **Inadequate Infrastructure:** Supporting facilities such as roads, irrigation, and agricultural equipment are still very limited. This hampers the distribution and marketing of farm products. Difficult access to plantation locations and a lack of post-harvest facilities cause crop losses and reduced product quality.
4. **Limited Marketing and Distribution Channels:** Coffee farmers in Dogiyai often face problems marketing their products. Marketing is still done traditionally, and access to a broader market is still limited—a lack of market information and marketing networks results in farmers selling products at unprofitable prices.
5. **Low involvement of the younger generation:** The younger generation in Dogiyai tends to be less interested in coffee cultivation, causing a lack of workforce regeneration in this agricultural sector. Many inherited coffee plantations are not managed well due to a lack of interest from the next generation.

By understanding these challenges, strategies for empowering coffee farmers in Dogiyai Regency can be designed more comprehensively to overcome the problems and sustainably increase coffee farmers' productivity, income, and welfare.

## **DISCUSSION**

Based on these findings, this research develops an empowerment model that focuses on strengthening the capacity of coffee farmer groups. This model includes several essential aspects: enabling, strengthening, protecting, supporting, and maintaining.

1. **Enabling:** Involves efforts to maintain an atmosphere conducive to the growth of farmer groups and changing the culture that hinders productivity. This can be done through outreach programs and awareness campaigns to change farmers' mindsets.
2. **Strengthening:** Providing better access to information and funding. This includes technical training, workshops, and educational programs aimed at improving the knowledge and skills of coffee farmers.
3. **Protection:** Focus on protecting weak farmer groups from discrimination and injustice. It includes providing legal assistance and policy advocacy that supports farmer welfare.
4. **Support:** Provide ongoing technical guidance and support. Agricultural extension workers are essential in providing regular field consultation and advice.
5. **Maintenance:** Creating conditions conducive to the continuation of farming. This includes infrastructure improvements, agricultural technology development, and market support to ensure farmers can sell their products at a fair price.

This empowerment model is expected to increase the productivity and income of coffee farmers in Dogiyai. With increased knowledge, skills, and resource access, coffee farmers will be more empowered to manage their farming businesses. Apart from that, the active involvement of the younger generation in the agricultural sector needs to be increased through programs that attract their interest in getting involved in coffee cultivation.

## **Development of a Coffee Farmer Group Empowerment Model**

Empowering coffee growers in Dogiyai Regency is a long-term strategy for increasing productivity, revenue, and welfare. Given Dogiyai Regency's significant potential for establishing coffee plantations, a comprehensive empowerment paradigm incorporating multiple stakeholders is required. The conceptual model developed in this study (Figure 1) considers the external and internal factors determining empowerment success and empowerment techniques such as capacity building, company development, and market access and marketing.

This conceptual model was created by considering the unique constraints and needs of Dogiyai Regency, such as low productivity, a lack of farmer knowledge and skills, weak farmer institutions, and limited market access and product marketing. As a result, the empowerment strategy focuses on increasing farmer capacity through education, training, and counseling, promoting

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sustainable business development by expanding land, providing production facilities, processing processed coffee products, and improving market access through marketing facilitation and collaboration with actors.

This methodology is unique in that it actively involves a variety of key stakeholders in the empowerment process, including local government, farmer groups, academia, and the private sector (business players). Each stakeholder has specific tasks and responsibilities based on their capacity and knowledge, allowing empowerment to be applied seamlessly and effectively.

This model of empowering coffee growers in Dogiyai Regency considers both the external and internal environment, which determines the success of empowerment. The external environment consists of local government regulations governing coffee plantation development, program and budget support, and market access for coffee goods. Meanwhile, the internal environment includes human resources (farmers' knowledge and skills, as well as institutional capacity), natural resources (plantation land and climate conditions), and facilities and infrastructure (access to advanced seeds and processing equipment).

The three primary components of Dogiyai's coffee farmer empowerment plan are capacity building, business growth, and market access and marketing. Capacity building is accomplished through education and training, field counseling, and establishing farmer organizations. Business development entails increasing plantation area, providing production infrastructure, and processing processed coffee goods to improve additional value. Meanwhile, market entry and marketing are made more accessible by delivering product marketing help and forming alliances with business actors.

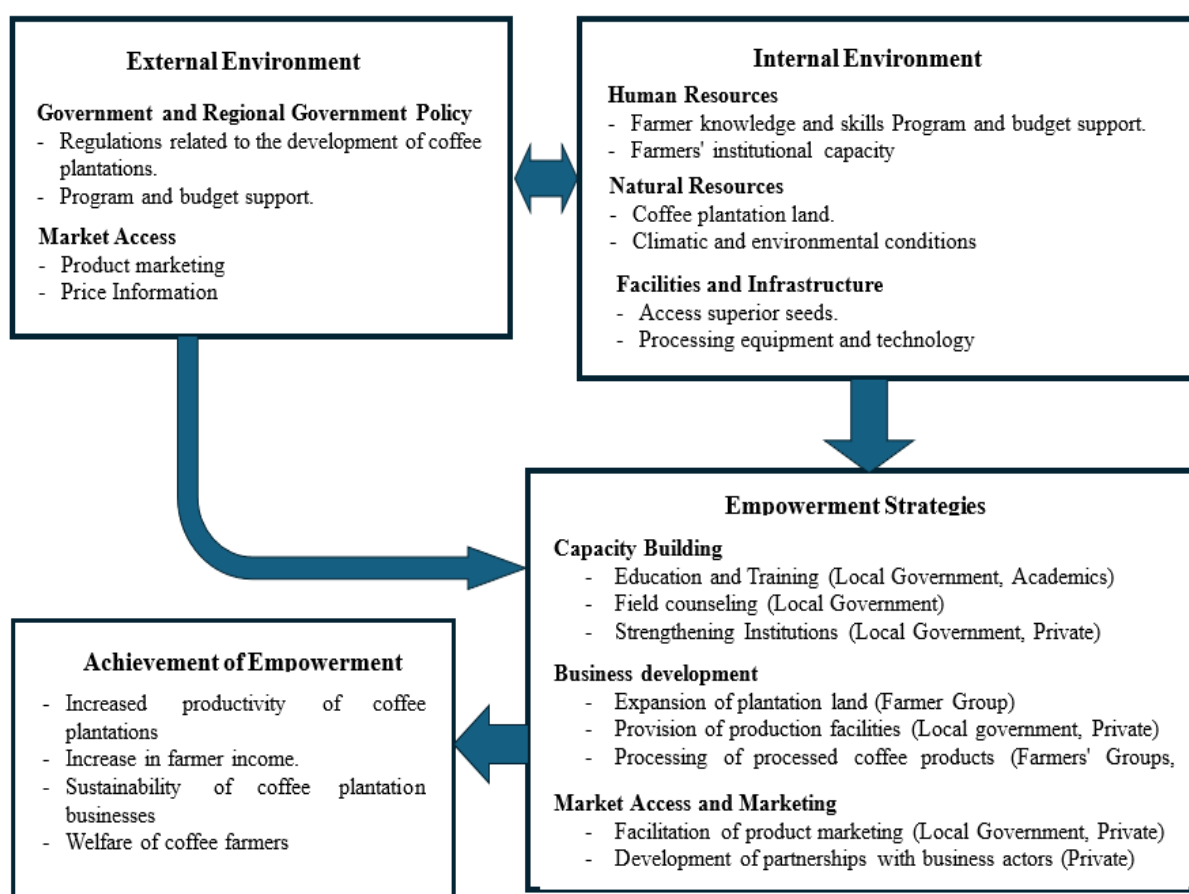


Figure 1. A Conceptual Model for Coffee Farmer Empowerment in Dogiyai Regency

Through education and training, capacity building attempts to improve farmers' knowledge and abilities in sustainable coffee growing, including plantation management, pruning, fertilizing, and pest and disease control. Field extension is carried out by extension officers who provide technical assistance and accompany farmers directly to the field. Production facilities entail providing excellent seeds, fertilizer, and agricultural equipment to promote quality coffee production.

Strengthening farmer institutions aims to improve coffee farmer group organizations, increase management capacity, and make resources and marketing more accessible. Coffee farmer groups serve as the focal point for empowerment efforts, allowing farmers to engage in decision-making, share information, and develop coffee plantation enterprises. It is hoped that by applying this empowerment model, the goal of empowering coffee farmers in Dogiyai will be met, which includes enhancing coffee plantation production, farmer income, the sustainability of coffee plantation enterprises, and the long-term welfare of coffee farmers.

This model describes the conditions and requirements for empowering coffee farmers in Dogiyai, including the constraints of low productivity, a lack of farmer knowledge and skills, weak farmer institutions, and limited market access and product

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marketing. As a result, the empowerment plan focuses on building farmer capacity, promoting long-term business development, and improving market access.

This conceptual approach for empowering coffee growers in Dogiyai Regency incorporates the participation of key stakeholders such as local government, farmer groups, and the private sector.

### 1. Increasing Capacity:

- a) Education and training entail collaboration between local governments (via the Department of Agriculture and Plantations) and academic or research organizations to supply materials and qualified trainers.
- b) Field extension is carried out by regional government extension workers who provide technical guidance to farmers.
- c) Strengthening farming institutions by bringing together local government and the private sector (commercial players) to help form and develop influential farmer groups.

### 2. Business Development:

- a) Farmers are responsible for expanding plantation acreage, with support from local governments through permits and regulations.
- b) Local governments and the commercial sector supply production facilities such as superior seeds, fertilizer, and equipment.
- c) Farmer groups handle processing processed coffee goods, with marketing and partnership help from the private sector.

### 3. Market Access and promotion:

- a) Local governments and the private sector collaborate to provide market knowledge and establish networks for product promotion.
- b) The private sector collaborates with business actors to facilitate product marketing and information transfer.

By incorporating diverse stakeholders based on their responsibilities and capacities, the approach to empowering coffee producers in Dogiyai will be effective and sustainable. The active participation of farmers in decision-making and management of coffee plantation operations is also critical to the achievement of this empowerment.

Finally, the empowerment model created is consistent with empowerment theory, which promotes a comprehensive and participative approach (Narayan, 2002; Samah & Aref, 2011; Alsop et al., 2006; Sánchez-Betancourt & Vizcarra-Bordi, 2021; Haugaard, 2012). Farmers' active participation in the empowerment process, from planning to evaluation, along with assistance from many stakeholders (government, research institutions, and commercial players), is critical to the success of long-term empowerment (Sachs, 2005; Alkire & Deneulin, 2009).

## Policy Implementation and Implications.

This model's implementation requires the complete assistance of local governments, financial institutions, and civil society organizations. Regional governments must implement policies that support coffee growers' capacity building, including enough funding for training programs and infrastructure development. Collaboration with financial institutions can also help farmers gain better access to funding.

This empowerment concept has significant consequences for local economic growth. The Dogiyai community's well-being is expected to improve as coffee farmers' output and revenue rise. This situation will also promote inclusive and long-term economic prosperity in the region. This empowerment strategy, which takes a holistic and complete approach, can serve as an example for other regions facing comparable issues in expanding their agricultural sectors. Thus, this empowerment effort benefits coffee producers in Dogiyai and contributes significantly to national agricultural development.

## CONCLUSION

This research succeeded in identifying various challenges faced by coffee farming groups in Dogiyai Regency, including lack of knowledge and skills, limited access to resources and funding, inadequate infrastructure, limited marketing and distribution channels, and low involvement of the younger generation. Based on these findings, an empowerment model was developed that focuses on strengthening the capacity of coffee farmer groups through five main aspects: enabling, maintaining, protecting, supporting, and nurturing.

Implementing this model is expected to increase the productivity and income of coffee farmers in Dogiyai. By improving knowledge, skills, and resource access, coffee farmers will be more empowered to manage their farming businesses. Apart from that, the active involvement of the younger generation in the agricultural sector can be increased through programs that attract their interest in getting involved in coffee cultivation. Overall, this empowerment model has the potential to encourage more inclusive and sustainable local economic development and make a significant contribution to the welfare of the Dogiyai community.

## REFERENCES

- 1) Alkire, S., & Deneulin, S. (2009). The human development and capability approach. In S. Deneulin & L. Shahani (Eds.), *An introduction to the human development and capability approach* (pp. 22-48). London: Earthscan.
- 2) Alsop, R., Bertelsen, M. F., & Holland, J. (2006). *Empowerment in practice: From analysis to implementation*. Washington, DC: World Bank.



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- 3) Bappenas. (2020). Regional Economic Development Strategy. Jakarta: National Development Planning Agency.
- 4) Dogiyai Regency Agriculture and Plantation Service. (2017). Plantation Sector Annual Report 2017.
- 5) Dogiyai Regency Central Statistics Agency. (2017). Dogiyai Regency Regional Statistics 2017.
- 6) Dogiyai Regency Government. (2021). Dogiyai Regency Agricultural and Plantation Development Strategic Plan 2021-2025.
- 7) Dogiyai Regency Regional Financial and Asset Management Agency. (2017). Dogiyai Regency Regional Government Financial Report 2016.
- 8) Dogiyai Regency Regional Regulation Number 5 of 2018 concerning Regional Medium Term Development Plans for 2017-2022.
- 9) Haugaard, M. (2012). Rethinking the four dimensions of power: Domination and empowerment. *Journal of Political Power*, 5(1), 33-54.
- 10) Hulupi, R. (2019). Potential and Opportunities for Development of Arabica Coffee Agribusiness in Dogiyai Regency. *Agribusiness Journal*, 8(2), 85-96.
- 11) Kabeer, N. (2005). Gender equality and women's empowerment: A critical analysis of the third-millennium development goal 1. *Gender & Development*, 13(1), 13-24.
- 12) Mosse, D. (2020). *The aid effect: Giving and governing in international development*. London: Routledge.
- 13) Narayan, D. (2002). *Empowerment and poverty reduction: A sourcebook*. Washington, DC: World Bank.
- 14) Papua Province Plantation Service. (2018). *Papua Province Plantation Sector Annual Report 2018*.
- 15) Sachs, J. D. (2005). *The end of poverty: Economic possibilities for our time*. New York: Penguin Press.
- 16) Samah, A. A., & Aref, F. (2011). The theoretical and conceptual framework and application of community empowerment and participation in community development processes in Malaysia. *Journal of American Science*, 7(2), 186-195.
- 17) Sánchez-Betancourt, D., & Vizcarra-Bordi, I. (2021). Empowerment models for sustainable development: A case study in rural communities of Mexico. *Sustainability*, 13(6), 3269.
- 18) Technology Assessment and Application Agency. (2020). *Final Report on the Study of Arabica Coffee Development in Dogiyai Regency, Papua*.
- 19) Wahyuni, S., & Santoso, H. (2021). Factors that Influence the Young Generation's Interest in Coffee Farming in Dogiyai Regency. *Indonesian Agribusiness Journal*, 9(1), 1-12.
- 20) Zimmerman, M. A. (2000). Empowerment theory. In J. Rappaport & E. Seidman (Eds.), *Handbook of Community Psychology* (pp. 43-63). Boston, MA: Springer.



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