

Development of Sekarwangi Coffee as a Superior Product in Cibeureum Village, Kuningan Regency: A Study of Potential, Production Process, and Local Economic Value

Muhammad Fadil Himawan^{1*}, Abdul Robi Padri², Muhammad Gian Al-Farizi³

Politeknik Siber Cerdika Internasional, Indonesia

Corresponding Author: fadilhmawan.1311@gmail.com, alfarijigian@gmail.com

Accepted: 20-08-2026 Approved: 03-09-2026 Published: 28-10-2026

Abstract

Background: Coffee is one of the plantation commodities that plays a strategic role in strengthening rural economies. Cibeureum Village, Kuningan Regency, has local coffee potential developed by the Sekarwangi Coffee MSME. However, evidence on how a village-scale coffee MSME links local raw materials, on-site processing, and community economic benefits remains limited.

Objective: This study aims to analyze the potential of Sekarwangi Coffee in terms of raw materials, production processes, and its contribution to local economic empowerment.

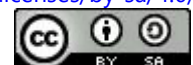
Method: This research employs a qualitative descriptive approach through field observations, interviews with MSME actors, and documentation studies. Key informants (the MSME owner and production workers) were selected purposively, and the data were analyzed interactively with source and technique triangulation.

Results: The results indicate that Sekarwangi Coffee utilizes raw materials from highland areas with distinctive flavor characteristics and is managed through a simple yet quality-oriented production process. The presence of Sekarwangi Coffee MSME contributes to increasing the added value of local coffee commodities, creating employment opportunities, and strengthening the economic identity of Cibeureum Village. Processing comprises sorting, drying, roasting, grinding, and packaging using simple equipment, while marketing remains concentrated on local consumers.

Conclusion: Sekarwangi Coffee retains coffee value within the village by converting local beans into a ready-to-consume product. This study is expected to serve as a reference for developing local potential-based MSMEs and enhancing the competitiveness of village coffee products at the regional level. Village government and extension services should therefore prioritize processing standardization and market access.

Keywords: Sekarwangi Coffee, MSMEs, rural economy, local coffee, Cibeureum Village

This is an Open Access article distributed under the terms of the Creative Commons Attribution 4.0 International license <https://creativecommons.org/licenses/by-sa/4.0/>



INTRODUCTION

Coffee is one of the plantation commodities that has high economic value and a strategic role in rural economic development. Indonesia as one of the world's coffee producers has advantages in terms of variety diversity, agroclimatic conditions, and the involvement of village communities in the coffee cultivation and processing process (Sia et al., 2025; Yusuf et al., 2022). In addition to functioning as an export commodity, coffee is also a driver for the growth of MSMEs based on local potential. However, Indonesian smallholders mostly carry out cultivation and limited post-harvest handling, and they sell sun-dried beans through village collectors and traders, which limits the share of value they capture (Haryono et al., 2024).

The development of village-based coffee is one of the important strategies in increasing the added value of agricultural products and strengthening the local economy. Improving processing knowledge and shifting sales from coffee cherries to processed beans has been identified as a way to add value and strengthen the livelihoods of Indonesian coffee farmers (Wulandari et al., 2022). MSMEs act as a bridge between the agricultural sector and the market, so that they are able to increase farmers' income and create new jobs (Durroh et al., 2025). Strengthening coffee MSMEs is also in line with the concept of local economic development which emphasizes the sustainable use of local resources (Navarro-Valverde et al., 2022).

In the context of village-based economic development, the relationship between agricultural production and downstream processing deserves particular attention. Suryana et al. (2024) discusses structural challenges in Indonesian coffee development, particularly the limited share of processed products and the position of small producers. Meanwhile, Navarro-Valverde et al. (2022) emphasize the productive use of local resources in economic development. These perspectives suggest that examining the activities of village MSMEs can clarify how local agricultural commodities acquire added value before reaching consumers.

Kuningan Regency has mountainous geographical conditions that are suitable for coffee cultivation, especially Arabica coffee. One of the areas that has this potential is Cibeureum Village. In this village, Sekarwangi Coffee MSMEs are developing that process local coffee into ready-to-consume coffee powder products. The existence of Sekarwangi Coffee not only reflects the potential of the village's natural resources, but also becomes part of the economic identity of the local community (Azkar et al., 2025).

The quality potential of locally grown coffee also depends on how raw materials are handled after harvesting. Cassamo et al. (2022) highlights the relevance of growing conditions and coffee quality, while Febrianto and Zhu (2023) discuss the technical challenges of coffee processing. Taken together, these studies provide a basis for examining not only the origin of coffee beans but also the successive processing activities and the capacity of small-scale producers to maintain product consistency. For Sekarwangi Coffee, these considerations are particularly relevant because production relies on local beans and simple MSME-scale equipment.

However, the development of village coffee still faces various challenges, such as limitations in processing technology, quality consistency, and product marketing (Durroh et al., 2025; Nuraisyah et al., 2025). Therefore, this study aims to examine the potential of

Sekarwangi Coffee in Cibeureum Village from the aspects of raw materials, production processes, and its contribution to the local economy.

Although previous literature has discussed Indonesian coffee development policy (Suryana et al., 2024), coffee quality and growing conditions (Cassamo et al., 2022), and processing technology (Febrianto & Zhu, 2023), the specific connection among local raw material sourcing, village-scale processing practices, and community-level economic value has not been examined in the cited literature through the case of Sekarwangi Coffee. This constitutes the research gap addressed in the present study. The urgency of examining this case lies in the need to understand how a village MSME can preserve the added value of coffee within its local economy while facing constraints in production consistency and market reach.

The novelty of this study lies in its integrated, context-specific description of Sekarwangi Coffee as a village flagship product, linking the potential of locally sourced coffee beans, the actual sequence of small-scale processing activities, and the qualitative forms of contribution to the surrounding community. Rather than measuring economic effects in monetary terms or testing processing performance experimentally, the study focuses on documenting these interconnected dimensions in the conditions experienced by the MSME. Accordingly, the study seeks to examine the potential of Sekarwangi Coffee in Cibeureum Village in terms of raw materials, production processes, and its contribution to the local economy, and to provide a contextual basis for improving production quality and market access.

RESEARCH METHOD

This study used a qualitative descriptive approach to examine the condition and potential of Sekarwangi Coffee MSMEs. Data were collected through field observations of the coffee production process, interviews with Sekarwangi Coffee MSME actors, and documentation of village data and relevant literature on coffee and MSMEs. The data were analyzed through the stages of data reduction, data presentation, and conclusion drawing, following Mihas (2023). The study was focused on Sekarwangi Coffee MSMEs in Cibeureum Village, Kuningan Regency.

The observation, interview, and documentation materials were examined in relation to three aspects reported in the results: the origin and geographical characteristics of coffee raw materials; the sequence of sorting, drying, roasting, grinding, and packaging, including the use of simple production equipment and local marketing; and the qualitative contribution of processing activities to employment opportunities, product added value, and village identity.

During data reduction, information relevant to these aspects was selected and organized. Data presentation was structured as descriptive findings and summary tables, followed by conclusion drawing based on the patterns identified across the available field materials. The economic contribution was described qualitatively rather than estimated in monetary terms, because the study does not report quantitative measurements of income, employment, or sales.

RESULT AND DISCUSSION

The results of the study show that the development of Sekarwangi Coffee in Cibeureum Village is influenced by several main aspects, namely the source of raw materials, the

production process, and the impact of the local economy. These characteristics are summarized in Table 1.

Table 1. Characteristics of Sekarwangi Coffee Development in Cibeureum Village

Aspects		Description
Raw material source		Coffee beans come from local farmers in Cibeureum Village and its surroundings
Geographical conditions		Highland regions with relatively cool temperatures
Processing process		Seed sorting, drying, roasting, grinding, packaging
Production technology		Simple, MSME-based equipment
Quality orientation		Maintain the consistency of the taste and aroma of coffee
Market segmentation		Local consumers and limited scale marketing

Source: Primary data from field observations, interviews, and documentation (processed by the authors).

Based on Table 1, Sekarwangi Coffee shows a strong relationship between the agricultural sector and village MSMEs. The use of local raw materials strengthens the village economy and supports the concept of development based on local potential (Durroh et al., 2025; Sia et al., 2025).

Raw Material Potential of Sekarwangi Coffee

The first finding concerns the raw material base. Coffee beans processed by the MSME are sourced from local farmers in Cibeureum Village and its surroundings, which means that procurement takes place over a short supply distance and relies on the existing cultivation activities of village households. The highland setting and relatively cool temperatures of the village constitute the main natural asset of this raw material, as such conditions are generally associated with slower cherry maturation and the development of more pronounced aroma and acidity (Cassamo et al., 2022; Wang et al., 2022).

For the MSME, this local sourcing pattern provides two advantages: it reduces dependence on external suppliers, and it allows the product to be identified with a specific place of origin. At the same time, dependence on a limited local supply implies that the volume and quality of the raw material are strongly influenced by the cultivation and harvesting practices of the surrounding farmers.

Production Process of Sekarwangi Coffee

The second finding relates to the production process. As summarized in Table 1 and illustrated in Figure 1, the processing of Sekarwangi Coffee follows five sequential stages. Sorting is carried out first to separate defective or broken beans and foreign material from sound beans, since bean uniformity is a precondition for even roasting. Drying then reduces

the moisture content of the beans to a level that prevents mould growth and allows them to be stored safely before roasting (Anokye-Bempah et al., 2023; López-Rodríguez et al., 2024).

Roasting transforms the beans into an aromatic product through heat-induced chemical reactions that develop colour, flavour, and aroma (Vezzulli et al., 2023; Wang et al., 2022); this stage is therefore the most decisive for the sensory character of the final product (Vezzulli et al., 2023). The roasted beans are subsequently ground into powder and packaged to protect the product from moisture and oxygen, which would otherwise accelerate the loss of aroma.

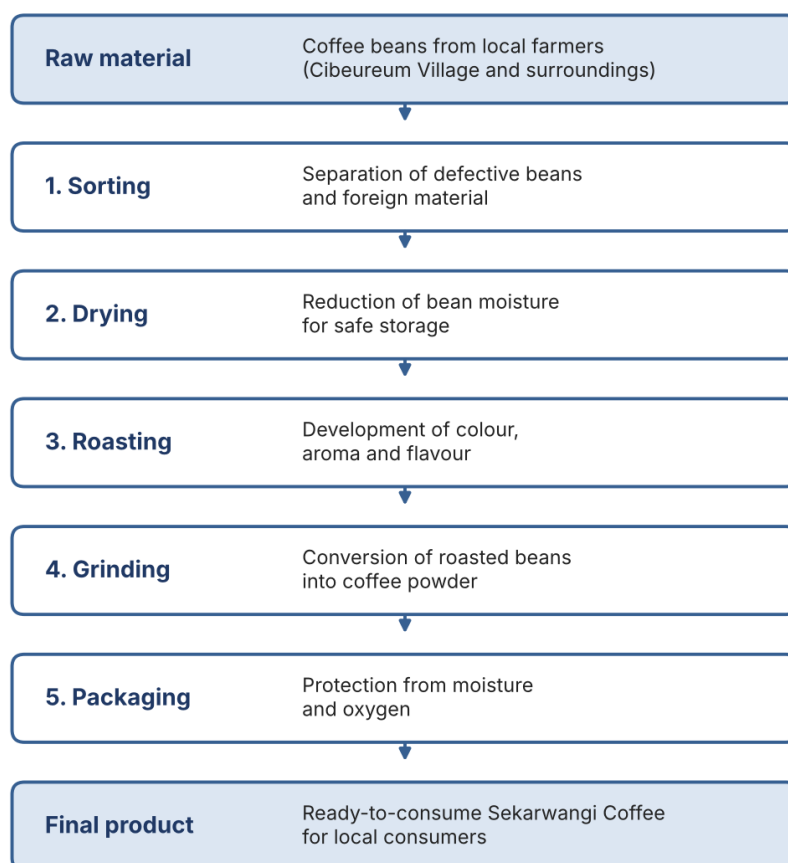


Figure 1. Production Process Flow of Sekarwangi Coffee

Source: Compiled by the authors from field observations and interviews.

All processing stages are performed using simple, MSME-scale equipment. This technological level is consistent with the limited capital typical of village enterprises, but it also explains the challenge of quality consistency raised in the Introduction: when roasting and grinding rely on simple equipment and on the experience of the operator, the colour, aroma, and fineness of the product may vary between batches (Azkar et al., 2025; Durroh et al., 2025). Experimental evidence also shows that coffee roasted to the same nominal roast level on different drum roasters can follow different time–temperature and mass-loss behaviour, which illustrates why roasting outcomes depend on how the process is controlled (Debona et al., 2022). The orientation of the MSME toward maintaining the consistency of taste and aroma indicates an awareness of this risk. Translating this orientation into measurable process

parameters, such as target moisture content, roasting temperature and duration, and grind size, would strengthen the consistency that the MSME seeks to maintain.

With regard to marketing, the product is directed mainly at local consumers and is marketed on a limited scale. This market orientation reflects the early stage of the enterprise and corresponds to the marketing constraint identified for village coffee in general (Azkar et al., 2025). Nevertheless, the domestic market itself is substantial, since most Indonesians consume coffee regularly and demand for specialty coffee is stronger in urban areas (Ashardiono & Trihartono, 2024). Selling to local consumers enables the MSME to build recognition and trust within its immediate community, but it also restricts sales volume and, consequently, the scale of the economic benefits that can be generated for the village.

Contribution of Sekarwangi Coffee to the Local Economy

In addition to general characteristics, the contribution of Sekarwangi Coffee MSMEs to the local economy can be seen from the socio-economic impact produced. These impacts are presented in **Table 2**.

Table 2. The Contribution of Sekarwangi Coffee MSMEs to the Local Economy of the Village

Indicator	Impact
Employment	Opening up job opportunities for the surrounding community
Community income	Increase the selling value of local coffee
Product added value	Raw coffee is processed into ready-to-consume products
Village identity	Sekarwangi Coffee as a village flagship product
Economic sustainability	Supporting MSMEs based on local potential

Source: Primary data from field observations, interviews, and documentation (processed by the authors).

Table 2 shows that the existence of Sekarwangi Coffee MSMEs not only has an impact on the economic aspect, but also on strengthening village identity. This finding is in line with the concept of sustainable local economy that places MSMEs as the main driver of village development (Barrett et al., 2022; Navarro-Valverde et al., 2022). The contribution summarized in Table 2 operates through several connected channels. The processing of raw coffee into ready-to-consume products constitutes the core mechanism of value addition: rather than leaving the village as a raw commodity, the coffee is roasted, ground, and packaged locally, so that the margin generated by these activities is retained within the village economy.

This processing activity in turn requires labour, which opens job opportunities for members of the surrounding community, and provides a local outlet for farmers' beans, which increases the selling value of local coffee. Beyond these economic effects, the positioning of Sekarwangi Coffee as a village flagship product strengthens the collective identity of Cibeureum Village and provides a symbolic asset that can be used to promote the village. It should be noted that these contributions are documented qualitatively; their magnitude has not been quantified in monetary terms in this study.

Discussion

The findings of this study are consistent with, and extend, several previous studies. Suryana et al. (2024) identified the low share of processed coffee products and the weak position of smallholders as structural constraints of Indonesian coffee development. The case of Sekarwangi Coffee illustrates a village-level response to this constraint: by processing local beans into a finished product, the MSME shifts part of the value-adding activity from outside the village to within it. Whereas the analysis of Suryana et al. (2024) operates at the level of national policy, the present study shows how this shift materializes concretely in a single village enterprise.

With respect to raw materials and processing, the present findings support Wang et al. (2022), who emphasized that the quality of Arabica coffee is determined jointly by the growing environment and post-harvest handling. In the case of Sekarwangi Coffee, the highland origin provides the environmental basis for quality, while the processing stages determine whether this potential is realized in the final product.

Previous studies have demonstrated that controlled roasting (Vezzulli et al., 2023) and fermentation (Braga et al., 2023; Elhalis et al., 2023; Febrianto & Zhu, 2023) influence the sensory quality of coffee. In contrast to these studies, which were conducted under controlled conditions, the Sekarwangi Coffee MSME operates with simple equipment under field conditions, which explains why the consistency of taste and aroma emerges as a central concern for the enterprise. This divergence suggests that the technical knowledge generated by earlier studies has not yet been fully transferred to village-scale processors, indicating an important role for agricultural extension services.

From a development perspective, the findings align with the view that local economic development relies on the productive use of local resources by local actors (Navarro-Valverde et al., 2022). Viewed through the value chain framework of Barrett et al. (2022), the Sekarwangi Coffee MSME performs its primary activities within the village: inbound logistics through the procurement of local beans, operations through sorting to packaging, and outbound logistics and marketing to local consumers.

Its current strengths lie in inbound logistics and operations, which are anchored in local resources, whereas marketing remains the weakest link in the chain. This pattern suggests that the next stage of development should focus on strengthening marketing and quality standardization, so that the value created through local processing can reach wider markets. Overall, the study confirms that a small village enterprise can function as a bridge between the agricultural sector and the market, as argued by Durroh et al. (2025), while also showing that the extent of this function depends on processing quality and market access.

CONCLUSION

Sekarwangi Coffee is a superior product of Cibeureum Village, Kuningan Regency which has significant economic and social potential. The coffee processing process by local MSMEs is able to provide added value to the coffee commodity and contribute to the economic empowerment of the village community. Strengthening production quality, product innovation, and marketing strategies are important steps to increase the competitiveness of Sekarwangi Coffee in the wider market.

Local coffee beans and processing stages, including sorting, drying, roasting, grinding, and packaging, underpin the product. The findings indicate opportunities for local employment, increased product value, and stronger village identity. However, limited marketing reach and challenges in maintaining consistent quality constrain development. These contributions were identified qualitatively rather than measured financially. Production standardization and improved market access are therefore relevant priorities for stakeholders.

ACKNOWLEDGEMENT

The authors thank the owner and production workers of the Sekarwangi Coffee MSME for their time, openness, and willingness to share information during the field observations and interviews. Appreciation is also extended to the Cibeureum Village Government, Kuningan Regency, for permission and support during data collection, and to Politeknik Siber Cerdika Internasional for its academic support in completing this study.

REFERENCES

- Anokye-Bempah, L., Han, J., Kornbluth, K., Ristenpart, W., & Donis-González, I. R. (2023). The use of desiccants for proper moisture preservation in green coffee during storage and transportation. *Journal of Agriculture and Food Research*, 11, 100478. <https://doi.org/10.1016/j.jafr.2022.100478>
- Ashardiono, F., & Trihartono, A. (2024). Optimizing the potential of Indonesian coffee: A dual market approach. *Cogent Social Sciences*, 10(1), 2340206. <https://doi.org/10.1080/23311886.2024.2340206>
- Azkar, R., Darma, R., Amir, A. A., Syam, S. H., Kasim, M., Bakheet Ali, H. N., Amandaria, R., & Astaman, P. (2025). Sustainability of the Toraja Arabica coffee value chain in Indonesia: Economic, cultural, environmental, and certification dimensions. *Frontiers in Sustainability*, 6, 1691977. <https://doi.org/10.3389/frsus.2025.1691977>
- Barrett, C. B., Reardon, T., Swinnen, J., & Zilberman, D. (2022). Agri-food value chain revolutions in low- and middle-income countries. *Journal of Economic Literature*, 60(4), 1316–1377. <https://doi.org/10.1257/jel.20201539>
- Braga, A. V. U., Miranda, M. A., Aoyama, H., & Schmidt, F. L. (2023). Study on coffee quality improvement by self-induced anaerobic fermentation: Microbial diversity and enzymatic activity. *Food Research International*, 165, 112528. <https://doi.org/10.1016/j.foodres.2023.112528>
- Cassamo, C. T., Manguze, A. V. J., Leitão, A. E., Pais, I. P., Moreira, R., Campa, C., Chiulele, R., Reis, F. O., Marques, I., Scotti-Campos, P., Lidon, F. C., Partelli, F. L., Ribeiro-Barros, A. I., & Ramalho, J. C. (2022). Shade and altitude implications on the physical and chemical

- attributes of green coffee beans from Gorongosa Mountain, Mozambique. *Agronomy*, 12(10), 2540. <https://doi.org/10.3390/agronomy12102540>
- Debona, D. G., Louvem, R. F., da Luz, J. M. R., Nariyoshi, Y. N., de Castro, E. V. R., Oliveira, E. C. da S., Guarconi, R. C., de Castro, M. G., de Oliveira, G. F., Partelli, F. L., da Silva, M. de C. S., Bellon, A. P., & Pereira, L. L. (2022). Heat and mass transfer kinetics on the chemical and sensory quality of Arabica coffee beans. *Agronomy*, 12(11), 2880. <https://doi.org/10.3390/agronomy12112880>
- Durroh, B., Darsono, Irianto, H., & Riptanti, E. W. (2025). Integrated model for the sustainable development of the Arabica Java Ijen Raung specialty coffee agroindustry: A two-stage approach. *International Journal of Sustainable Development and Planning*, 20(12), 5271–5288. <https://doi.org/10.18280/ijstdp.201220>
- Elhalis, H., Cox, J., & Zhao, J. (2023). Coffee fermentation: Expedition from traditional to controlled process and perspectives for industrialization. *Applied Food Research*, 3(1), 100253. <https://doi.org/10.1016/j.afres.2022.100253>
- Febrianto, N. A., & Zhu, F. (2023). Coffee bean processing: Emerging methods and their effects on chemical, biological and sensory properties. *Food Chemistry*, 412, 135489. <https://doi.org/10.1016/j.foodchem.2023.135489>
- Haryono, A., Juniarti, I., Matajat, K., Suroso, A. I., & Soesilo, M. (2024). Partnership development of smallholder coffee cultivation: A model for social capital in the global value chain. *Economies*, 12(12), 349. <https://doi.org/10.3390/economies12120349>
- López-Rodríguez, C., Verheecke-Vaessen, C., Strub, C., Fontana, A., Schorr-Galindo, S., & Medina, A. (2024). Reduction in Ochratoxin A Occurrence in Coffee: From Good Practices to Biocontrol Agents. *Journal of Fungi*, 10(8), 590. <https://doi.org/10.3390/jof10080590>
- Mihas, P. (2023). Qualitative research methods: Approaches to qualitative data analysis. In R. J. Tierney, F. Rizvi, & K. Ercikan (Eds.), *International encyclopedia of education* (4th ed., pp. 302–313). Elsevier.
- Navarro-Valverde, F., Labianca, M., Cejudo-García, E., & De Rubertis, S. (2022). Social innovation in rural areas of the European Union: Learnings from neo-endogenous development projects in Italy and Spain. *Sustainability*, 14(11), 6439. <https://doi.org/10.3390/su14116439>
- Nuraisyah, A., Wulandari, E., Indrawan, D., & Othman, Z. (2025). The roles of stakeholders in supply chain sustainability challenges: The case of coffee chain in West Java Province, Indonesia. *Discover Sustainability*, 6(1), 247. <https://doi.org/10.1007/s43621-025-01004-3>
- Sia, R., Darma, R., Salman, D., & Riwu, M. (2025). Sustainability assessment of the Arabica coffee agribusiness in North Toraja: Insight from a multidimensional approach. *Sustainability*, 17(5), 2167. <https://doi.org/10.3390/su17052167>
- Suryana, A. T., Saleh, Y., Dewi, T. G., & Rahayu, H. S. P. (2024). Global competitiveness of coffee products: A comparative study of Indonesia and Vietnam. *Coffee Science*, 19, e192237. <https://doi.org/10.25186/v19i.2237>
- Vezzulli, F., Lambri, M., & Bertuzzi, T. (2023). Volatile compounds in green and roasted Arabica

- specialty coffee: Discrimination of origins, post-harvesting processes, and roasting level. *Foods*, 12(3), 489. <https://doi.org/10.3390/foods12030489>
- Wang, X., Wang, Y., Hu, G., Hong, D., Guo, T., Li, J., Li, Z., & Qiu, M. (2022). Review on factors affecting coffee volatiles: From seed to cup. *Journal of the Science of Food and Agriculture*, 102(4), 1341–1352. <https://doi.org/10.1002/jsfa.11647>
- Wulandari, S., Djufry, F., & Villano, R. (2022). Coping strategies of smallholder coffee farmers under the COVID-19 impact in Indonesia. *Agriculture*, 12(5), 690. <https://doi.org/10.3390/agriculture12050690>
- Yusuf, E. S., Ariningsih, E., Ashari, Gunawan, E., Purba, H. J., Suhartini, S. H., Tarigan, H., Syahyuti, Hestina, J., Saputra, Y. H., Wulandari, S., Ilham, N., & Ariani, M. (2022). Sustainability of Arabica coffee business in West Java, Indonesia: A multidimensional scaling approach. *Open Agriculture*, 7(1), 820–836. <https://doi.org/10.1515/opag-2022-0144>