



Local Eco-Entrepreneurship in Coffee Farming Communities of Sultan Kudarat, Philippines

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Abstract Eco-entrepreneurship refers to social enterprises formed to address local and global problems such as poverty and climate change. This study examines two developing coffee enterprises based in the municipalities of Kalamansig and Lebak in the province of Sultan Kudarat and employs focus group discussions and SWOT analysis to understand the strategies adopted by coffee farmer associations. A survey was conducted to assess the participants' readiness to engage in community-based entrepreneurial activities. The two producer associations represent less than 5% of the total coffee growers in their Barangays. These farmer associations were formed to access assistance from the government and other donors. Additionally, they aim to consolidate their production to meet the volume and quality specifications of major buyers in the future. Moreover, the members expressed interest in establishing a trading store to consolidate coffee beans from both members and nonmembers. However, they currently lack working capital, as the association is expected to pay cash upon delivery of Green Coffee Beans (GCB). Association members also face several ecological and erratic climatic conditions, such as heavy rains and landslides, which continually affect coffee production. These challenges present significant obstacles to their operations; however, the spirit of cooperation among members signals growth and progress. One of the community activities that the association members participated in was tree planting in forested areas to reduce landslide incidence. Despite entrepreneurial and environmental uncertainties, the association has been exploring consolidated trading by engaging with a cooperative for a possible market arrangement. The association plans to unite and enhance each member's competencies and inspire other farmers to join by implementing meaningful capacity building and entrepreneurial activities. Moreover, the association has joined a network of coffee farmers to collectively address the environmental and economic challenges they face.

Keywords eco-entrepreneurship, poverty, climate change, coffee farming

INTRODUCTION

Ecological or eco-entrepreneurship, which shares similar meanings with environmental, green, or sustainable entrepreneurship, is a relatively emerging subfield of entrepreneurship research (Gast et al., 2017). Eco-entrepreneurship refers to the inclusion of ecological considerations in livelihood

decision-making processes and the application of strategies to address current environmental challenges. This type of entrepreneurship is driven by key actors committed to preserving cultural, ecological, and environmental sustainability while simultaneously identifying pragmatic approaches to generate economic benefits.

Farming communities and their families face the daily challenge of survival, particularly in terms of securing food as a basic necessity. Sultan Kudarat is one of the top coffee-producing provinces in the Philippines. Recent typhoons have caused severe damage to rural farming communities, destroying infrastructure such as roads and bridges, causing the displacement of families, and disrupting their livelihoods. Smallholder communities face a recurring dilemma: how to recover after each typhoon hits. When their crops are destroyed by floodwaters, families regroup to replant their crops and hope to recover their losses. They remain eager and hopeful to receive available support from the government, such as the provision of seedlings, fertilizers, and technical assistance.

Eco-entrepreneurship initiatives have emerged to address local communities' concerns: starting a sustainable livelihood while protecting the environment. These communities engage in the sale of their agricultural produce to reduce wealth inequality.

This study focuses on two smallholder producer associations and how they demonstrate the characteristics of eco-entrepreneurs. Both associations began their entrepreneurial journeys recently during the post-pandemic period. While some members have been engaged in coffee farming for decades, they have only recently initiated a collective effort to market their produce.

OBJECTIVES

This study uses two case studies of entrepreneurial initiatives in coffee-growing communities to address local poverty and climate action issues. It also presents the results of an assessment of the personal entrepreneurial competencies of the officers from the two organizations.

METHODOLOGY

Primary data were collected using various research tools. First, an organizational assessment method was adopted from the Organizational Capacity Assessment (OCA) Tool. The OCA Tool served as the primary reference in developing the guide questions for the Focus Group Discussions (FGD). A series of FGD were conducted with the two producer associations in December 2023. A total of 32 participants, including both officers and members, attended. The participants were divided into three FGD groups: officers, board of directors/working committees, and members. The FGD outputs were further processed using the Strengths, Weaknesses, Opportunities, and Threats (SWOT) Analysis. Additionally, key informant interviews were conducted in March 2024.

Another tool used in this research was a self-assessment survey on personal entrepreneurial competencies (PEC). The text of this survey was translated into the local dialect, and enumerators were hired to interview 28 officers from the two associations. PEC is a framework originally developed by McClelland (1987) to assess 10 entrepreneurial characteristics.

RESULTS AND DISCUSSION

The FGD results were compiled using a thematic analytical framework. The six thematic areas are: (1) governance and leadership, (2) operations and management, (3) human resource development, (4) financial management, (5) business service delivery, and (6) external relations.

Case Study 1: Coffee Farmers Association of Hinalaan (COFAH)

COFAH was registered with the Department of Labor and Employment on February 28, 2023. It currently has 39 members. The main motivation for joining the association is to access government

support services and training, sell to Nestlé, and receive assistance from various stakeholders. Both officers and members express a collective goal for each member to succeed in coffee production. In the short term, the officers aim to establish a physical store for the association; however, a lack of financing hinders this goal. The association capitalizes on its internal network, particularly the influence of two members who are elected as village officials.

Table 1 Thematic analysis of FGD results

Thematic areas	Producer's group 1: COFAH	Producer's group 2: NCGA
Governance and leadership	To strengthen the organization, set up a store for their coffee trading; consultative leadership.	Coffee farming to reduce poverty incidence; Train members in coffee production, increasing their volume of production.
Operations and management	To engage in consolidation and trading of coffee, completing the registration process of the organization.	To engage in consolidation and partner with Bacbacan Cooperative
Human resource development	To undergo training provided by Nestle (or an international agribusiness company); train on how to manage an association	To undergo leadership trainings and team-building, farm management, and soil analysis
Financial management	To maintain a logbook of transactions; prepare an annual budget; and collect contributions of members for working capital	To keep records and report the transactions during the general assembly
Business service delivery	To buy GCBs from both members and non-members; consolidated trading	To sell in bulk quantities to both members and non-members
External relations	Limited connections so far; need to link to partners who can assist the organization.	Need information on what organizations to tap for various services.

Note: Six themes and concerns were compiled from the FGD of the two producer associations.

COFAH is currently involved in the buying, consolidation, and trading of green coffee beans (GCBs). On average, members own relatively large coffee farms, ranging from 2.5 to 7 ha. Each member contributes a certain volume of coffee to fulfill supply commitments to Nestlé, although some members also independently sell to other traders as well.

Case Study 2: Nulling Coffee Growers Association (NCGA)

The NCGA was registered as an association with the Department of Labor and Employment on May 31, 2021. Currently, it has 143 registered members in the group.

The FGD results indicate that all respondents' primary motivation for establishing the association was to gain access to government support services, such as seedlings and fertilizers, which are channeled through registered associations rather than to individual farmers. The officers acknowledged that several members are inactive and do not attend meetings because of their busy schedules related to coffee production and marketing. Since its inception in 2021, the respondents stated that the association had not engaged in any clearly defined business activities. The NCGA is actively seeking assistance from external stakeholders for the acquisition of materials and machinery. Currently, members rely on traders, independent lenders within the community, microfinance institutions, and cooperative banks to access financial services.

Both associations face the challenge of declining membership engagement. Complaints center around a lack of transparency in financial records and the failure of officers to implement clearly defined programs. These issues are particularly evident in the NCGA, which has been slow to transition into consolidated trading among its members. These concerns must be addressed promptly to prevent a decline in activity and possible dormancy of these producer associations.

Personal Entrepreneurial Competencies

This study used the Personal Entrepreneurial Competency (PEC) framework to determine the characteristics of community-based entrepreneurs. McClelland (1987) defined personal entrepreneurial competency as an underlying characteristic of a person that results in effective and superior performance in a business venture. There is a strong link between PECs and entrepreneurial motivation because individuals with strong PECs are more likely to demonstrate a higher level of willingness to start and manage a new business venture. Table 2 presents the ranking of PEC characteristics among the officers of the NCGA and COFAH. Most respondents identified two dominant characteristics; these multiple answers were tallied in the “number of respondents” column. Among NCGA officers, the most cited entrepreneurial trait was information seeking. Officers from this producer organization value the acquisition of new knowledge and technologies related to coffee production, marketing, and the management of their association. They continue to generate resources, such as the forthcoming coffee dehuller from the local government. This shows that, as entrepreneurs, they recognize that continuous participation in training programs and seminars is essential for enhancing their skills and capacities. Through this project, the NCGA established a plant nursery in the village center. Machinery acquisition, training, and nurseries are good value-adding strategies aimed at improving operations (Esnard et al., 2024).

The PEC results for COFAH showed a more balanced distribution across various traits. However, the key entrepreneurial trait among COFAH officers was goal setting, which denotes the importance of identifying clear objectives and purposes for collective action, as follows: One of COFAH’s primary goals is to establish a trading store that would function as a one-stop hub where traders can enter contracts and coordinate the transport of consolidated GCBs to processing units. During the off-harvest season, COFAH officers also plan to diversify into rice trading, which would be accessible to both members and non-members. COFAH also benefited from the extension services of the project with the construction of five units of elevated, all-weather dryers. These infrastructures will be useful in their post-harvest activities to achieve the goal of producing quality coffee beans.

Table 2 Entrepreneurial characteristics of officers of NCGA and COFAH

Rank	NCGA's characteristics	Number of respondents	%	COFAH's Characteristics	Number of respondents	%
1	Information-seeking	11	78.57	Goal setting	5	35.71
2	Self-confidence	3	21.43	Information-seeking	4	28.57
3	Commitment to the work contract	2	14.29	Commitment to the work contract	3	21.43
4	Systematic planning/controlling	2	14.29	Systematic planning/controlling	2	14.29
5	Persistence	1	7.14	Persistence	1	7.14
6	Demand for quality	1	7.14	Demand for quality	1	7.14
7	Goal setting	1	7.14	Self-confidence	1	7.14

Note: NCGA officers identified information-seeking as their top entrepreneurial characteristic. COFAH officers generally possess goal-setting abilities.

The NCGA PEC scores by gender are shown in Figure 1. Consistent with the findings in Table 2, both males and females exhibited a strong inclination toward information seeking. In addition, male officers demonstrated higher levels of self-confidence, whereas female officers showed stronger competencies in systematic planning and control, higher demand for quality, and a slight advantage in opportunity-seeking.

Figure 2 shows COFAH’s PEC scores disaggregated by gender. Both gender groups displayed goal-setting skills, although male officers tended to exhibit this trait more frequently. In contrast, female officers showed higher scores in self-confidence, persistence, and opportunity-seeking. Male officers exhibited information-seeking behavior, systematic planning, and self-confidence. The correction factor was used to determine whether a person tried to present a very favorable image of himself or herself.

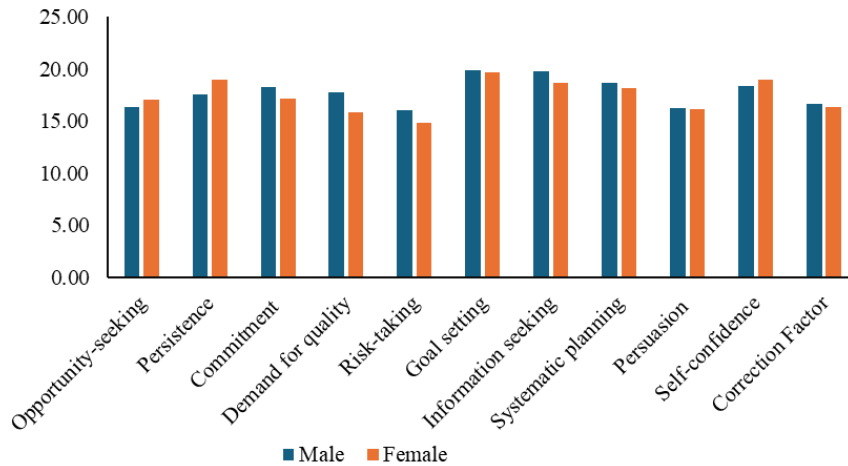


Fig. 1 Personal entrepreneurial competency by gender of NCGA

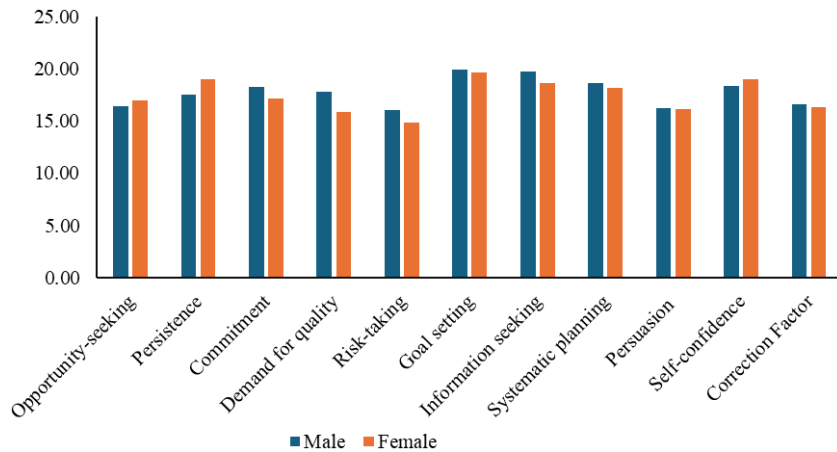


Fig. 2 Personal entrepreneurial competency by gender of COFAH

Environmental Challenges and Opportunities

The Philippines lies within the tropical biome and faces the highest disaster risk levels in the world. It is located in the “cyclone belt” and is one of the most cyclone-prone countries worldwide. Despite these challenges, the Philippines is endowed with favorable climatic conditions and a suitable environment, which are important prerequisites for producing high-quality coffee. The province of Sultan Kudarat has fertile soil and a cool climate that is highly favorable for coffee farming. However, the onset of heavy rain poses a significant threat to farming communities. Intense rainfall disrupts the formation and growth of coffee flowers, whereas flooding increases the risk of landslides that damage farms, erode coffee trees, and destroy critical infrastructure such as bridges, houses, and roads. These environmental threats make farmers feel less motivated to continue with coffee farming. In response to these challenges, members of the coffee associations encourage one another and frequently seek assistance from the Municipal Agriculturist’s Office (MAO), which provides new planting materials to replace damaged coffee trees.

To reduce damage from flooding and landslides, both groups of eco-entrepreneurs adopted the bayanihan method—a traditional Filipino practice of collective community effort. One of these activities is revegetation using native plants with deep roots, as their root systems help stabilize soil strength. They also involve all members in planting coffee and native trees along the slopes to act as natural barriers to reduce the incidence of landslides. During calamities, members help each other repair damaged infrastructure.

Both the NCGA and COFAH have adopted sustainable development practices that align with the preservation of ecological systems and resources. Their environmental efforts reflect a long-term commitment to safeguarding present and future generations. Other studies have documented how entrepreneurs contribute to community development and environmental protection while achieving profitability by utilizing available natural resources. Santiago (2013) highlights the importance of integrating sustainability into business strategies and suggests expanding educational and policy support to foster sustainable entrepreneurship. Social entrepreneurs can drive sustainable development in developing countries by balancing poverty reduction, profitability and environmental sustainability (Aquino et al., 2021; Azmat, 2013; Thiel, 2011). Supporting such entrepreneurs is crucial for fostering innovative approaches to face various challenges, which could generate benefits for people, profits, and the planet.

CONCLUSION

Coffee farming in Sultan Kudarat provides a vital source of livelihood for local communities. The increasing demand for coffee, both locally and in the international market, assures producers that it is a highly valued commodity. Their green coffee beans represent a potential pathway to lift their families out of poverty. Many farmers own relatively large planting areas that they can manage as enterprises, and the yield and quality of their coffee production largely determine their household income.

However, natural calamities continue to disrupt farming activities. The increasing frequency and intensity of typhoons visiting Central Mindanao, coupled with severe rainfall patterns, have destroyed coffee trees, caused landslides on farms, and damaged bridges and public roads. In the aftermath of such events, both farmers and non-farmers adopt the traditional bayanihan system to help rebuild and replant the affected farms.

Eco-entrepreneurs take the lead in addressing these pressing environmental problems. They are committed to preserving the community's ecological systems and resources. They acknowledge that these resources are essential for sustaining life in future generations. Coffee-based eco-entrepreneurship offers a case study of how smallholder farmers can adopt locally driven initiatives to combat poverty, mitigate climate risks, and protect their livelihoods and the environment.

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