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MARKETING PRACTICES OF CORN FARMERS IN KIORAO, KIBAWE, BUKIDNON, PHILIPPINES: BASIS FOR POLICY AND INTERVENTION

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Abstract

There is a growing concern about the reported low profitability among corn farmers especially in geographically isolated and disadvantaged areas as influenced by problematic marketing activities. This study primarily investigated the current marketing situation of corn farmers in Kiorao, Kibawe, and Bukidnon, Philippines. A descriptive research design was employed to attain the objectives of the study. The study had a complete enumeration and used the responses of 31 corn farmers. Primary data were collected through a structured survey questionnaire and Focus Group Discussion (FGD). Qualitative analysis of data was done by synthesizing the narratives of the respondents. Quantitative analysis of data was conducted through frequency counts, percentages, and means. Results revealed that corn farmers at Kiorao Kibawe, Bukidnon, most of them are middle-aged 30- 60 years old, less educated, married, and rely on farming as their primary source of income. Corn farmers sold their commodity as corn kernels. Most of them perform post-harvest and value-adding activities which include shelling and drying amidst the high cost and limited availability of facilities. Farmers sell their produce to corn traders with low-quality control measures. Farmers are just price takers. Corn traders picked up and consolidated the corn kernels and delivered them to big feed milling companies in Cagayan de Oro City. Corn farmers incur high costs of labor and transportation in bringing the commodities from the farm to the barangay. Other challenges include low buying prices, poor road conditions, high costs of inputs, lack of source of capital, and limited availability of solar dryers. These contribute to their low profitability. Hence, this study suggests government intervention in subsidizing costs, prices, and provision of additional post-harvest facilities to reduce the marketing costs of corn farmers and maximize their profitability.

Keywords: Marketing Practices, Corn, Marketing Assessment.

INTRODUCTION

The agricultural sector in the Philippines undeniably contributes significantly to the country's economy. The Department of Agriculture, through the DA-Bureau of Agricultural Research, envisioned achieving food security, increased productivity and profitability, poverty eradication and people empowerment, sustainable agricultural development, and global competitiveness. The department utilizes approaches that include relevant and innovative technology and information generation, community-based technology development, and validation, agribusiness development, and the like to advance agricultural production performance (Bureau of Agricultural Research, 2021).

As the global pandemic affected the world, the Philippine Statistics Authority reported that during the 3rd quarter of 2020, agricultural production growth in the country slowed to 0.7% compared to a 2.3% rise in the same quarter in 2019 as higher crops and fisheries production was offset by declines in livestock and poultry output (Ochave, 2020).

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Barangay Kiorao is located in Kibawe, Bukidnon, Philippines (a second-class municipality) and is approximately 16 kilometers from the center of trade. It is the 2nd poorest barangay in the municipality of Kibawe and has been identified as a Geographically Isolated and Disadvantaged Area (GIDA). The locale relies on agriculture, specifically corn production, as their primary source of income, yet there are several challenges that the community is facing that hinder them from maximizing the utility of their agricultural operations (Kibawe Municipal Planning and Development Office, 2020). Based on the needs assessment conducted in their community, one of their major problems is the unstable market price of corn and low profitability. There is a growing concern among farmers about the marketing of their corn since they frequently suffer from low buying prices during marketing activities which leads to losses most of the time.

Marketing assessment in Barangay Kiorao will provide a clear picture of the actual marketing practices of the corn farmers to gain a deeper understanding of the situation in the community. The result of the study will guide decision-makers, particularly in the Kibawe local government unit and other government agencies, to come up with well-planned strategies to help facilitate a smoother marketing activity of the farmers for higher and better profitability. This research study will respond to the challenges that these corn farmers are facing. Thus, the result of the study looks forward to serving as a guide in formulating appropriate and pro-farmer policies and interventions for poverty alleviation.

Objectives

The main objective of this research was to describe the current marketing situation of corn farmers in Kiorao, Kibawe, Bukidnon. Specifically, it sought to establish the profile of corn farmers; describe the marketing practices of corn farmers; identify the marketing channels of the corn grains; and determine the constraints and challenges in their marketing operations.

Significance of the Study

The Local Government Unit (LGU) of Kibawe and other government agencies like the Municipal Agriculture Office and Negosyo Centers can use the result of the study as a baseline for any possible intervention or program that they can conduct that will suit the situation and practices of the farmers at Barangay Kiorao, Kibawe, Bukidnon. The local corn farmers of Barangay Kiorao can consider the possible recommendation of the research to improve their marketing practices. They can take advantage of the suggestions generated. The results of this study can be utilized by the academe and other non-government organizations. They can base their extension, livelihood, and other similar projects on community development.

Limitations of the Study

The marketing practices in this study focused on the practices in the post-harvest and marketing of yellow corn kernel, as this is the standard form of product that is demanded. On the other hand, only farmers registered in the Registry System for Basic Sectors in Agriculture (RSBSA) were included in the study. There is also a low response rate among the target respondents of the study. Out of 87 corn farmers, only 31 participated in the study.

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METHODOLOGY

A descriptive research design was used in the study. Primary data were obtained through Key informant interviews (KII) and focus group discussions (FGD). A structured interview with the use of a survey questionnaire was conducted. A complete enumeration of the corn farmers was conducted. A total of 31 corn farmers in Barangay Kiorao, and 1 trader (assembler and wholesaler) in Poblacion Kibawe, Bukidnon participated in the study.

The survey questionnaire has three (3) main sections. The first section of the questionnaire was about the socio-demographic profile of the respondents. The second section of the questionnaire tackles the marketing practices of the corn farmers. The third section of the questionnaire evaluated the constraints and challenges of corn farmers in their marketing operation. A Focus Group Discussion (FGD) was also conducted to validate the survey results.

Descriptive measures like mean, frequency counts, and percentages were used to analyze the data. Qualitative analysis of data was done by synthesizing the narratives of the respondents. This study secured an Institutional Ethics Review Committee (IERC) permit from Central Mindanao University to ensure that the procedures for conducting the study were ethical.

RESULTS AND DISCUSSIONS

Socio-Demographic Profile of Corn Farmers

The next section presents the socio-demographic profile of corn farmers at Kiorao, Kibawe, Bukidnon, Philippines. The data gathered include age, gender, educational attainment, civil status, household size, source of income, and membership in any organization.

Table 1: Age of Corn Farmers

Age	Frequency	Percentage (%)
21-30	3	10
31-40	9	29
41-50	9	29
51-60	8	26
61-70	2	6
Total	31	100%

Most of the corn farmer respondents were middle-aged. Young corn farmer respondents aged 21-30 constitute only 10%. On the other hand, only 6% of them were senior citizens. This result is quite contrary to the report of the Southeast Asian Regional Center for Graduate Study and Research in Agriculture{SEARCA) (2023) that the average age of Filipino farmers ranges from 55-59 years old. On the other hand, this result is consistent with the statement of the Department of Agriculture (2023) that the younger generation is interested in engaging in agriculture.

Based on their registry system, the average age of farmers in the country has decreased to about 49 to 50 years old. This could mean that the younger age bracket had started to get attracted to agricultural production. With this, the Department of Agriculture launched projects that are centered on young farmers.

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One of them is the Young Farmers Challenge which offers financial grant assistance to youth who will engage in agro-fishery enterprise. Scholarships are also offered to students who are taking agriculture-related courses (Presidential Communication Office, 2023).

Table 2: Gender of Corn Farmers

Gender	Frequency	Percentage (%)
Male	15	48
Female	16	52
Total	31	100

The distribution of corn farmer respondents in terms of gender is close to equal. There is a noticeable high participation of men and women in corn production activities. This result is similar to the report of Food and Agriculture Organization of the United Nations (2010) that women in rural areas undertake various production activities, yet their actual contribution to food production and economic activities remains undervalued and not so visible.

However, according to Ani and Casasola (2020), the Philippine government released mandates like the Philippine Development Plan of Women, Women in Development and Nation Building Act, and the Magna Carta for Women that lead to the empowerment of women in agriculture.

Gender equality and women empowerment in agriculture is still yet to be fully realized. Then, in the long run, this could lead to equal and full representation of men and women in the decision-making process in crafting agriculture-related initiatives and programs.

Table 3: Educational Attainment of Corn Farmers

Level	Frequency	Percentage (%)
Elementary Level	3	10
Elementary Graduate	4	14
High School Level	9	30
High School Graduate	12	40
College Level	1	3
College Graduate	1	3
Vocational	1	3
Total	31	100

The most considerable percentage falls into corn farmer respondents who graduated high school. However, many of them did not finish high school. Very few reached the tertiary level of education. This result conforms to the report of The New Humanitarian (2013) that the average educational attainment of Filipino farmers is at the elementary level due to limited access to education in the past years.

This result is also consistent with the report of Briones (2017) that Filipino workers have finished at least secondary school. With this, the promotion of non-formal education through various modalities is deemed to be necessary to increase the knowledge of farmers in terms of farming and marketing. Increasing their knowledge can contribute to their awareness and adoption of new agricultural technologies that could lead to increase in their productivity.

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Table 4: Civil Status of Corn Farmers

Status	Frequency	Percentage (%)
Married	23	75
Lived-in	5	16
Widow/Widower	2	6
Separated	1	3
Total	31	100

Most of the corn farmer respondents were married. Few farmers were in civil union while others were separated and widowed. This result is consistent with the study by Puerto et al. (2021) that farming is dominated by married individuals.

According to Nudelman & Gillet (2015), farmers and agricultural workers marry each other. People seem to be compatible with someone who shares the same kind of schedule where they can relate to each other's compassion for work. Farming is considered one of the major occupations of families in the Philippines. It is there source of income to be able to provide to their families.

Table 5: Household size of corn farmers

Number of Family Members	Frequency	Percentage (%)
1-5	23	75
6-10	8	25
Total	31	100

Most of the corn farmer respondents have few members in the family and their household. This result is consistent with the study of Puerto et al. (2021) that the average household size of Filipino farmers is around 5-6 members in each household. This result is higher compared to the ideal family size in the Philippines.

According to United States Agency for International Development (USAID) (2017), married Filipino families have an ideal family size of 3. In 2019, the Philippines ranked 13th as the country with the highest population with a rate of 3 babies born per minute.

This could indicate a need for developing policies for the future of young people to maximize their potential for economic growth (UNFA Philippines, 2019).

Table 6: Main source of income of corn farmers

Source of Income	Frequency	Percentage (%)
Farming	31	100
Total	31	100

All the corn farmer respondents rely on farming as their main source of income. According to the Food and Agriculture Organization (2022), agriculture is the primary source of livelihood for 25-30% of the labor force and contributes to 10% of the Philippine Gross National Product (GNP). With this, there is a need to increase and stabilize farm incomes and food production in developing countries to reduce poverty. Increased access to non-agricultural income is also encouraged (Noack & Larsen, 2019).

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Table 7: Membership of Corn Farmers to Organizations

Organization	Frequency	Percentage (%)
Farmer's Organization	11	10
Cooperative	0	0

Most of the corn farmer respondents were not members of any farmer's organization. None of them were a member of any cooperative. The study by Ballesteros and Ancheta (2020) mentioned that there are existing farmers' association. However, many of these organizations have low level of organizational maturity, and it suggests improvements in the organizations' commitment to the organization.

Marketing Practices of Corn Farmers

Corn farmers in Kiorao, Kibawe, Bukidnon conduct various post-harvest activities as part of value-adding activities. These activities include shelling, drying, sacking, and storing.

Table 8: Number of farmers performing post-harvest activities on corn

Activity	Frequency	Percentage (%)
Shelling	28	90
Drying	31	100
Sacking	31	100
Storing	3	10

After harvest, most of the corn farmer respondents perform shelling while very few of them sell their corn on cobs. Based on the Focus Group Discussion (FGD), farmers who sell their corn on cobs do not want to take the post-harvest risk and settle for a lower buying price of their product. According to Rahayu, Dewi, and Febrianti (2020), most of the corn farmers have no specific risk management strategy due to limited information and awareness both in production and marketing. Some of them resort to selling corn on cobs if they only have very few or small volumes of harvest. On the other hand, farmers who shell their corn, take advantage of higher buying prices despite the post-harvest costs that will incur along the process.

The shelling activity usually takes place on the farm location if the farm road is passable. The costs for the shelling machine are Php 2.00 per sack or gallon, and labor costs are Php 250.00 per man per day. Once the corn kernels were separated from the cobs, the drying process followed. The corn cobs were then transported to the drying area of the farmers.

Table 9: Means of Transportation of Corn from Farm to Barangay Road

Means of Transportation	Frequency	Percentage (%)
Horse	30	97
Motorcycle	1	3
Total	31	100

On average, the distance of the corn farms to the nearest barangay road was 2.72km. Around 97% of corn farmers use horses as their means of transportation from their farm to the barangay proper or where the drying will occur. Many of the farm locations is passable only by horse. A

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single horse can carry a maximum of 2 large sacks of corn or three small sacks of corn. Only 3% of farmers can use the motorcycle to transport their produce. The costs of transportation range from Php 24.00 to Php 55.00 per sack of corn. This situation is consistent with the report of The World Bank (2013) that farm-to-market roads in Mindanao are not in good condition. The roads are commonly bumpy and muddy, which leads to longer travel time and high costs for transportation. In 2020, the Department of Agriculture issued Administrative Order No. 5 and 28 series of 2020 assigning the Bureau of Agricultural and Fisheries Engineering (BAFE) to craft the Farm-to-Market Road Network Plan (FMRNP). The plan will list all existing and proposed roads that will link agri-fishery production areas, processing plants, trading posts, local markets, and agri-tourism sites and be prioritized (Bureau of Agricultural and Fisheries Engineering, 2022).

Drying takes place either at a solar dryer at the barangay plaza or in laminated sheets (trapal) if the dryer is not available. The grains are sun-dried for several days, depending on the weather conditions. Commonly, sun drying will take 2-3 days under good (sunny) weather conditions while 3-5 days under bad (gloomy) weather conditions. Gragasin, Maruyama, & Kikuchi (2004) mentioned that farmers dry their commodities to increase their income. Manual solar-dring is used by most farmers, and none adopts mechanical dryers to ensure a higher rate of return. Farmers do not use a grain moisture meter or any device to determine the moisture content of the corn grains if it already reached the acceptable/required moisture of the corn grains to the corn buyers. They just use the manual feel method as their means of estimation. Once they find the kernels have already achieved the desired moisture content, the corn kernels will then be sacked. After sacking, 90% of the farmers sell their produce directly to the buyer while 10% of them store their produce in their respective households. Many farmers sell their produce directly to avoid storage problems like weevil infestation. In rare instances, farmers store their produce due to the desire of the corn farmers to wait for a better buying price of their produce especially when it is at the peak of harvest season when supply is high, which drives the price to go down. Once the corn kernels are ready for marketing, the commodity is picked up by corn buyers/traders using trucks.

Table 10: Source Market Information of Corn Farmers

Source	Frequency	Percentage (%)
Buyer	31	100
Government	0	0
Others	0	0
Total	31	100

Market information is essential for corn farmers. It serves as the basis for selecting where and to whom they will sell their produce. In barangay Kiorao, farmers rely only and entirely upon the marketing information provided by the buyers through personal inquiry. It is their sole source of information, particularly on prices and marketing outlets. They have no other source of information. Farmers in the Philippines still have difficulty in accessing the market and in creating market linkages (The World Bank, 2020). In the case of information verification, they just verify prices from one corn buyer to another.

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Table 11: Price Verification of Corn Farmers

Particular	Frequency	Percentage (%)
Yes	14	45
No	17	55
Total	31	100

Some farmers verify the buying price of corn, while other farmers do not. Those farmers who do price verification utilize information from other buyers. Farmers do not verify it to other government or non-government institutions. The Department of Agriculture through its Municipal Agriculture Offices regularly conducts price monitoring of basic agricultural commodities. Then, they disseminate their data online. However, despite the increased access to the internet and mobile phones, digital literacy remains low among Filipino farmers (Arceo, 2023). Thus, farmers might not access price information on the internet.

Corn commodities are all sold at Kibawe, Bukidnon. Buyers of corn are classified as corn traders/ wholesalers. There are only four (4) main buyers of corn in Kibawe, where farmers sell their produce. According to the farmers during the Focus Group Discussion (FGD), the basis for their selection of buyer is mainly on who offers the highest buying price. Farmers always take advantage of higher prices to maximize their profitability. Other consideration includes the "suki" relationship between buyers and farmers. Others also opt to sell their products to those buyers who offers financial and input credit especially at the beginning of the production period.

Table 12: Buyers of corn

Type of Buyers	Frequency	Percentage (%)
Assembler-Wholesaler	31	100
Assembler-Retailer	0	0
Total	31	100

According to the corn farmers during the Focus Group Discussion (FGD), upon the selling of corn, it is the buyer who dictates the buying price of corn all the time. In general, it is difficult for corn farmers to bargain with the buying price of their produce since, most of the time, the price is already fixed, and they do not have any knowledge about the buying price of dried corn grains on the market other than the buyers. There are some instances that farmers can request or bargain for increase in the price, but only if the quantity of corn to be sold is large. Some farmers cannot lobby for increase in the buying price, especially if they have standing credit to the buyer. Because of their "suki-system" or credit arrangement, most participants indicated they did not confirm the price. Others, however, stated that regardless of the number of sacks they had, they preferred to clarify the price first before selling the dried corn grains to the buyers. The corn products are picked up by the buyers in the barangay after prior negotiations. Corn products are paid for by buyers through cash. For farmers who have credit to the buyers, their payables will be deducted from the sales they generate. According to Salazar, Elca, Lapina, & Salazar (2021), corn buyers in Bukidnon practice competitive pricing against competitors. They usually asked buying prices of their competitors before setting their buying price to be able to offer a competitive price.

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Marketing Channels of Corn

Corn products are bought by traders from Kiorao and other nearby barangays of Kibawe and neighboring municipalities. They establish connections with farmers to identify potential sources of products easily. They go to barangays to personally seek farmers who offer corn commodity. These traders in Bukidnon are either small or big depending on the scale of their procurement (Salazar, Elca, Lapina, & Salazar, 2021).

Corn traders will classify the corn into classes A, B, and C. Corn grain is classified as class A if it is of good quality, has a premium variety, it reached the required/accepted moisture content. Class B is characterized as a not premium variety but achieved the required/standard moisture content. Class C are those corn grains characterized to have defects like "butikol" and have not attained the required/standard moisture content. Class A and B command a higher price compared to Class C. For corn, the ideal moisture content is 14%. In case when the corn grains are classified as class C, there will be deductions either or both on the volume of the corn and price depending on the situation or condition of the corn grains. The deduction of volume and price usually ranges at 5%-10%. The quality classification of corn grains can sometimes be variable from one trader to another. On the other hand, there is an existing grading of corn set by the Philippine National Standard. The Premium Grade has a moisture content of 14%, with only 1% broken kernel and 3% damaged kernels. Grade No. 1 has a moisture content of 14% with 2% broken kernels and 5% damaged kernels. Grade No. 2 has a moisture content of 14% with 4% broken kernels and 7% damaged kernels. Grade No. 3 has a moisture content of 14% with 6% broken kernels and 10% damaged kernels (Bureau of Agriculture and Fisheries Standards, 2017). The buying price of corn that the traders set is based on the buying price of their buyer in Cagayan de Oro City plus their charge for the trucking services for the transportation of the products from Kibawe to Cagayan de Oro City, then markup added.

Commonly, the only activity related to value-adding that these buyers performed is drying. They will dry those commodities which fail to attain the ideal moisture content. They perform a such action to be able to maximize the buying price of their buyers by reaching the desired quality of the product. After such, the corn products were delivered to Cagayan de Oro City. Corn traders shoulder the transportation cost of product delivery, usually through a 10-wheeler truck. The big-time buyers of corn from the assembler-wholesaler include B-MEG, UNACHO, CJ Feeds, and Limketkai Corporation. These buyers are classified as processors. These companies use corn products to produce feeds for poultry and livestock. They set the buying price, and the corn traders are price takers. According to Salazar, Elca, Lapina, & Salazar (2021), the local supply of corn cannot cope with the needs of the feed millers due to increasing meat demand in the country.

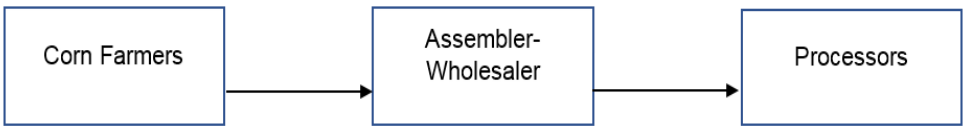

Figure 1: Marketing Channel of Corn Grains

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Constraints and Challenges in Marketing

In the post-harvest and marketing of corn, several problems are experienced by the farmers. These problems affect their productivity and efficiency of their farm activities. Most importantly, it affects their profitability.

Table 13: Challenges Encountered by Corn Farmers

Aspect	Yes	Percentage (%)	No	Percentage (%)
Price	33	100	0	100
Financing	33	100	0	0
Farm to Market Road	25	76	8	24
Buyer	5	15	28	85
Labor	4	12	29	88
Facilities	2	6	31	94

The main problem of corn farmers is the fluctuation of the price, where most of the time, the buying price of corn is generally low. These farmers are just price-takers on the buying price set by the corn traders. These corn traders also just based their prices on their buyers. Especially during the peak season of harvest when supply of corn is high, the buying price of corn tends to go down, which results to lower profitability. In the worst case, some farmers even experience a net loss due to lower buying prices. In 2020, corn farmers in the Philippines suffered an all-time-low buying price of corn, as low as Php 9.00/kg. This situation was due to continuous importation of the country of corn substitute products (Cooperative Development Authority, 2020).

Another problem among corn farmers is financing or inadequate capital. These farmers lack funds to finance their production. Commonly, they resort to borrowing just to secure the needed capital, even at high-interest rates. The interest rate for the money borrowed from neighbors and informal lenders can go up to 20%. Some farmers also tap corn traders in borrowing capital provided that they will sell their products to that corn trader after the production period. The high interest rate in borrowing also significantly reduces their profitability. This situation conforms to the report of Salazar, Elca, Lapina, & Salazar (2021) which mentioned that farmers in Bukidnon can either self-finance or lend money for their farm operation. The working capital for one cropping cycle ranges from Php 30,000- 40,000 per hectare. For farmers who lend money, the interest rate is 6% per cropping season, and an additional 5% on top of the initial interest is paid in case of late payments.

The road situation in Kiorao is also a struggle for many corn farmers. Most of the farms are very distant from the barangay proper. Then the road condition from the farm to the barangay was described to be “difficult to pass by” by the farmers. This results in difficulty in transporting their produce from the farm to the barangay proper. In most cases, only horses can be used as a means of transportation since these roads are not passable by motorcycles. Hauling costs range from Php 25.00 to Php 55.00 per sack. Hired labor costs range from Php 200.00 to Php 250.00 per man per day. In addition, the road from barangay Kiorao to Poblacion Kibawe is not yet concrete which limits the entry of some buyers going to Kiorao to buy the commodity of the farm. Most of the farm-to-market roads in Mindanao are not in good

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condition. The streets are commonly bumpy and muddy, which leads to longer travel time and high costs for transportation (The World Bank, 2013).

In some instances, some farmers have problems hiring laborers to conduct some of the farm activities. The utilization of family labor is the easiest way to address such concerns. Currently, the Philippines at present, is at risk of a critical shortage of farmers, considering that the average age of Filipino farmers is 53 years old. In 2018, the number of Filipinos employed in agriculture went down to 9.99 million, which is the lowest since 1995 (Business Mirror, 2021).

The availability of a solar dryer is also a concern among corn farmers. There is a dryer in the barangay, and they take turns using it. On the other hand, the barangay solar dryer on its plaza was already covered with a roof for the barangay's social and other relevant activities. Corn farmers usually dry their corn grains using a tarpaulin. The use of mechanical dryers is not so utilized in the Philippines since it tends to decrease the rate of return of the farmers (Gragasin, Maruyama, & Kikuchi, 2004). The limited availability of solar dryers sometimes causes delays in their post-harvest activities.

During the Focus Group Discussion (FGD) conducted, there were other problems were brought up by corn farmers. The high cost of inputs is another burden among corn farmers. This is somehow contrary to the report of Salazar, Elca, Lapina, & Salazar (2021) that input suppliers develop loyalty among customers by giving discounts or lower fees. Most of the farmers interviewed preferred to plant Pioneer, costing Php 6,000 per 9 kg bag, and Evogene, which cost Php 2,800 per 9 kg bag. The high and continuously increasing cost of farm inputs reduces their profitability. Specifically, the costs of synthetic fertilizer and the costs of hybrid corn seeds together with the pesticide are of significant concern. These farmers do not have choice but to acquire these necessary products. However, there are free inputs given by the Municipal Agriculture Office, like seeds and fertilizer yet, not all receive such assistance.

CONCLUSIONS

Corn farmers at Kiorao Kibawe, Bukidnon, Philippines tend to be at middle age of 30- 60 years old. There is likely equal participation of men and women in corn production. They are also less educated. Most of the corn farmers are married, with 1-5 members in their household. All of them rely on farming as their primary source of income. Then, very few of them are members of the farmer's associations.

After harvest, corn undergoes value-adding activities. For corn, corn on cobs is shelled using a sheller machine. It is then transported from the farm to the barangay using horses as primary means of transportation at high cost.

Then, it is dried for 2-5 days using a solar dryer or tarpaulin to attain the desired moisture content. Then, the corn traders in Kibawe, Bukidnon, picked up the corn kernels from the farmers in Barangay Kiorao, where the corn buyers shoulder the transportation costs. Corn farmers are price takers. The marketing channel of corn is simple and non-complex. For the corn, corn kernels are sold from the farmers of Kiorao to the corn traders of Poblacion, Kibawe, Bukidnon. Then, the corn kernels do not undergo other value-adding activities at the end of the

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intermediaries (corn traders) except for drying if the corn grains sold by farmers does not meet the desired moisture content. Thus, further drying is conducted. The corn kernels will then be transported through 10-wheeler truck to feeds processors at Cagayan de Oro.

There were typical marketing constraints and challenges that were faced by corn farmers. They are greatly affected by the fluctuation of the buying price of corn grains and where it is low most of the time. Another problem is a limited source of capital for production and marketing. The high costs of farm inputs are also a significant burden among farmers. The poor road situation in Kiorao, both farm to barangay and barangay to market (Poblacion Kibawe), is a significant problem that leads to high transportation costs. The limited availability of solar dryers also causes delay and some problems in conducting their post-harvest activities.

RECOMMENDATIONS

Based on the results of the study, the researchers came up with the following recommendations to the Local Government Unit (LGU) and Department of Agriculture (DA):

Provision of sheller machine. The LGU can provide at least one communal sheller machine to Barangay Kiorao under the supervision and custody of the barangay officials. The barangay will then craft an ordinance on the procedures, guidelines, and fees for using the sheller machine, provided that the costs that will be imposed is lower than the existing private sheller machine. Such action will reduce the post-harvest expenses of the farmers.

Provision of a grain moisture meter. The availability of a communal grain moisture meter or any device that can be used to measure the moisture content of corn in Kiorao can be beneficial for farmers to check the moisture content of their products so that they can market it only when the correct moisture content was already attained through their initial evaluation using the moisture meter. With this, the buying price and volume of production that is sold will no longer be deducted since the acceptable moisture content was already attained.

Concreting of the Kiorao to Poblacion, Kibawe Bukidnon Road. It is recommended that the national, together with the provincial and local government, will add to their priorities the concreting of the Kiorao to Población Kibawe Road. Making the road more passable will reduce the transportation costs of farmers especially the corn farmers, in marketing their products. In addition, concreting the road will lead traders from other municipalities and cities to expand their business operations at Kiorao. Such a situation will possibly lead to higher prices of corn grains due to increase in the competition among traders. Thus, it will be very beneficial to the farmers. In addition, the transportation costs will also decrease since the road is already passable and passable compared to the rocky and slippery road. More means of transportation like “bao-bao”, multicab, tricycles, and the like can already be utilized for easier and faster transportation of products.

Construction of additional solar dryer. The provision of additional solar dryers in Barangay Kiorao will help corn farmer’s fast-track their post-harvest activities. Also, it can accommodate and help more farmers. This can also help reduce their costs and post-harvest losses. Thus, ensuring higher volume of produce and a higher profitability.

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Organizing a Farmer's Association or a Farmer's Cooperative. Organizing a cooperative will help empower the farmers. Once organized as cooperative, they can purchase farm inputs in large quantities. Thus, they can avail of discounts and other provisions. Upon marketing, farmers can then sell their produce at the cooperative then, the cooperative will sell the product in bulk. Thus, it can reduce transportation costs and can bargain for higher prices. The existence of a cooperative can also help address the concerns of the individual farmers and lobby the concerned authorities.

The Local Government Unit (LGU), through the Department of Agriculture (DA) and Department of Trade and Industry (DTI), should strengthen their implementation of regular checking of the weighing scale of the corn buyers. Regular monitoring and calibration of all the measuring tools used by traders should be conducted. This is to ensure that all these tools are functional and accurate. Through this, it can prevent any fraud and strengthen the linkage between farmers and traders. This will serve as farmers' means of verification of the current prices. As such, they can select buyers who offer a price that they can maximize their profitability.

The Department of Agriculture is already conducting price monitoring. It is recommended that the update on the prices of corn products shall be disseminated among farmers through the agricultural technician assigned in Kiorao and through the barangay officials and purok leaders. This will guide the farmers in choosing the buyers to maximize their profitability from their commodity.

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