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PERCEPTION ON THE IMPLEMENTATION OF THE COMMUNITY/ HOUSEHOLD – LEVEL COCONUT PROCESSING PROJECT (CHLCPP) COMPONENT: THE CASE OF KIBAWE, BUKIDNON, PHILIPPINES

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Abstract

The Philippines' agriculture industry is crucial for economic development, employing 40% of the labor force and contributing up to 20% of the GDP. Despite a decrease in its share of the GDP, nearly one-third of the labor force still relies on agriculture for their living. However, households in this industry are among the poorest in the country, with farmers and fishermen being the most affected. The Philippine Coconut Authority created the Kasaganaan sa Niyugan ay Kaunlaran ng Bayan (KAANIB) Enterprise Development Project (KEDP) to promote the coconut and palm oil industry. One of the components of KEDP is the Community/ Household – Level Coconut Processing Project (CHLCPP). The study aimed to identify beneficiaries' socio-demographic profile, perception of the project's relevance, effectiveness, and sustainability, and their perception of the project's support system for coconut industry development, farm diversification, and credit facilities. The study uses descriptive research design and focused on one of the first beneficiaries of CHLCPP in Northern Mindanao, Kibawe, Bukidnon, Philippines. The research uses complete enumeration with 70 respondents with the help of the assigned agriculturist from the Philippine Coconut Authority Bukidnon Provincial Office. The research also uses descriptive statistics such as mean to identify the socio – demographic profile and the perception of the beneficiaries towards KEDP objectives. Results showed a positive outcome from the project. The beneficiaries were satisfied with the service the project had brought to them and accordingly, KEDP objectives were met.

Keywords: KEDP, CHLCPP, Perception, Farmers.

INTRODUCTION

An important factor in the economic development of the Philippines is the agriculture industry. It employed roughly 40% of the labor force and produced up to 20% of the GDP between the late 1990s and the early 2000s. Even while the sector's share of the GDP has decreased over time—from 12.7% in 2010 to 9.3% in 2018—nearly one-third of the labor force in the nation still depends on it for their living (World Bank, 2020).

Even while agriculture contributes to the economy, households in this industry are among the poorest in the nation. Farmers and fishermen comprise the greatest proportion of the poorest Filipino population, whose earnings are inadequate to cover their basic necessities, according

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to a 2018 poverty incidence study published by the Philippine Statistics Authority (PSA). With this, the researcher had the initiative to study the perception of the coconut farmer beneficiaries about the implementation of the project.

The Philippine Coconut Authority is mandated to be the policy of the State to promote the rapid integrated development and growth of the coconut and other palm oil industry in all its aspects and to ensure that the coconut farmers become direct participants in, and beneficiaries of, such development and growth (Philippine Coconut Authority, 1978).

In line with the corporate priorities and in pursuit of the sustainable development of a globally competitive coconut and other oil palm industry, the Philippine Coconut Authority created the Kasaganaan sa Niyugan ay Kaunlaran ng Bayan (KAANIB) Enterprise Development Project (KEDP) under the poverty reduction and empowerment of the poor and vulnerable key area. One of the components of the KEDP was the Community/ Household-Level Coconut Processing Project (CHLCPP) that aims to promote coconut-based enterprises in the different KAANIB sites for increased productivity and income/job generation. It also aims to foster the entrepreneurial skills of the community or household members of the community. Priority livelihood activities include coir-based processing including coir-based organic fertilizer production, coco sap sugar production and virgin coconut oil (VCO) production. This involved the establishment of processing facility and the provision of machineries and equipment such as decorticating machine, bailing, twining and looming machines for coir processing; expeller or pressing machine for VCO production and various equipment for coco sap sugar production (Philippine Coconut Authority, 2018).

The study aimed to identify the socio – demographic profile of the KAANIB Enterprise Development Project (KEDP): Community/ Household – Level Coconut Processing Project (CHLCPP) component beneficiaries and identify their perception in terms of level of attainment to the project's relevance, effectiveness, and sustainability. It also aimed to identify the beneficiary's perception towards the establishment of support system for coconut industry development, farm diversification and value – adding technologies, access to farm technology production, market linkages and credit facilities, and towards giving importance to every member especially women.

MATERIALS AND METHODS

A descriptive research design was used to examine the socio – demographic profile of the project beneficiaries and the level of attainment as perceived by the coconut farmer beneficiaries in terms of relevance, effectiveness, sustainability, and the objectives of the project 10 years after the implementation. The study covered the Municipality of Kibawe in Bukidnon, Philippines. Kibawe, Bukidnon was the first beneficiary of the Coconut Sugar processing technology of the Community Household – Level Coconut Processing Project component of KAANIB Enterprise Development Project. They were chosen because the community – based organization in the locality was also pro active and also very cooperative in terms of government extension projects. The respondents of the study were the 70 coconut farmer beneficiaries of Kibawe, Bukidnon. The study used complete enumeration with the help

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of the assigned agriculturist from the Philippine Coconut Authority Bukidnon Provincial Office. These respondents are members of the organization to which the project was given. They were the original members of the organization before the project started in their locality.

Primary data was collected from the 70 coconut farmer beneficiaries of the project to ensure proper results of the study. Questionnaires were given to the respondents pertaining to their socio – demographic profile and the level of attainment as perceived by the coconut farmer beneficiaries in terms of relevance, effectiveness and sustainability and to the objectives of the KEDP.

A letter of consent was approved by the Philippine Coconut Authority to conduct a study about the KAANIB Enterprise Development Project: Community Household – Level Coconut Processing Project component in Kibawe, Bukidnon. Upon approval, a letter of consent was sought out from the municipal Mayor asking permission to conduct a research in their respective municipality.

The research instrument that was used in the study includes a cover letter and the main questionnaire. The cover letter explains the objectives and the overall concept of the study asking for the commitments of the respondents to participate in the research. The researcher used the questionnaire adopted from the Philippine Coconut Authority with some degree of modification. It was not subjected to validation since it was the standard questionnaire used by the Philippine Coconut Authority. Nonetheless, it was subjected to proofreading, editing and pilot testing with a Cronbach's alpha result of 0.867.

The researcher used descriptive statistics such as mean in determining the socio – demographic profile and the level of attainment as perceived by the coconut farmer beneficiaries. And in order to validate the results of the statistical analysis, a Focus Group Discussion was made inviting 7 representatives from the group to discuss the validity of the data gathered and analyzed.

The research was conducted observing research ethics. A permission to conduct the study was sought from the municipal Mayor of Kibawe and an Institutional Ethics Review Committee (IERC) permit was secured from Central Mindanao University before the conduct of the study. The researcher assured confidentiality. Placing the name of the respondents was made optional to improve accuracy of responses and response rate.

RESULTS AND DISCUSSION

Socio – Demographic Profile

Results showed that eighty percent (80%) or about 56 beneficiaries were females and twenty percent (20%) or about 14 were males. This result undermines the 2002 Census of Agriculture and Fisheries (CAF) conducted by the Philippine Statistics Authority (2009), that male operators dominated the agriculture sector. Of the 4.8 million farmers, 89% were male operators while 11% comprises the female operators. The farmer beneficiaries mentioned during data validation that most of the males works in the farms while most of the females

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work in the processing site. Moreover, a study conducted by Lu (2007) shows that male farmers predominated than female. The organizations also employed women since it is one of the objectives of the KAANIB Enterprise Development Project. Nevertheless, it only shows that the agriculture sector is changing from a traditionally male dominated sector to a now female dominated sector.

Statistics results also reveals the age distribution of the coconut farmer beneficiaries. The finding implies that thirty one percent (31%) of the farmer beneficiaries belong to the 51 – 60 years old age group, eleven percent (11%) belong to the 70 years old and above and 41 – 50 years old group, nine percent (9%) belong from the 61 – 70 years old age group, and the remaining eight percent (8%) were the youngest which belongs to the 40 years old and below group. The average age of farmers engaged in coconut farming is 60 years old, with 84 years old as the oldest and 36 years old as the youngest. This goes to show that farmers were already at retirement age. This corroborates with the Department of Agriculture (DA) survey on 2017 that the average age of farmers was 60 years old (Inso, 2018). According to Abbott (2019), in the year 2019 the average age of farmers is 59 years old considered as "principal operator". Nonetheless, these farmers has a long range of experience in coconut farming and hopes to teach the cultural management practice of coconut to the next generations.

The results on the religious affiliations of the coconut farmer beneficiaries indicates that ninety four percent (94%) or 66 of the farmers were Roman Catholics and the remaining six percent (6%) or 4 farmers were divided to other religions like Jehovah's Witnesses and Baptists. Accordingly, there were only less than non-Catholic members because most of the non-Catholic members of the community lived along the mountains where communication is very difficult and roads were not very accessible. This indicates that among the farmers, Roman Catholicism is dominant in Kibawe, Bukidnon. This result conforms to the report of PSA (2010) that among the household population in Bukidnon, 76.5% were Roman Catholics which comprised the largest among the population.

The distribution of farmers according to educational attainment also revealed fifty one percent (51%) of the farmers were holders of high school level education, forty percent (40%) of the farmers has an elementary level degree, six percent (6%) were college degree holders while three percent (3%) were college level degree holders. This indicates that farmers attained basic education. Due to the lack of financial resources back then, the respondents were not able to go to higher education because the respondents were forced to do farming for them to have food in their tables. Thus, this result supports the PSA (2013) survey where they found that from the total household population, the largest portion of the population had finished utmost high school. In terms of employment status, ninety-eight percent (98%) of the beneficiaries were full – time farmers as their employment, and the remaining percentages were distributed to public and private employees which was one percent each (1%). This is because most of the farmer beneficiaries were not able to finish higher education courses and most of them only knew how to farm. Thus, farming plays an important role in the community. According to a study conducted by Jimenez, Santos, and Gomez (2018), agriculture is the main economic driver in Bukidnon, with farming being the primary agricultural activity.

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Data shows that in terms of number of years as coconut farmers, thirty – nine percent (39%) had been in the coconut farming for 11 – 15 years, thirty – four percent (34%) were farming for more than 20 years, thirteen percent (13%) were farming for 5 – 10 years, eleven percent (11%) were farming for 16 – 20 years, and the remaining three percent (3%) were just new at farming and had been doing so for 5 years and below. The farmer beneficiaries had been farming for more than 20 years due to familial ties and a lack of alternative livelihood options in the community, as supported by the focus group discussion. Moreover, farmers involved in farming for several years are expected to perform better than new ones. According to a study by Sivapragasam et al. (2019), coconut farming provides a stable source of income for many farmers in developing countries, where agriculture is the mainstay of the economy. As such, farmers who have invested significant time and resources in coconut farming may be reluctant to abandon their livelihoods. Also, farmers experience bridges theory and practice, which may affect farmers' openness in accepting and participating in agricultural programs (Francis et al., 2014). The distribution of farmers according to ownership status of the farm reveals eighty – six percent (86%) of the farmers were land owners. This indicates that most farmers work on their own farm. This result corroborates with the report of PSA (2009) that majority (80%) of the agricultural operations were engaged in their own landholdings.

The results also showed that one hundred percent (100%) of the farmer beneficiaries owned their households. A study conducted by the International Labour Organization (ILO) (2018), in the Philippines found that coconut farmers were among the poorest agricultural workers in the country, with high levels of debt and limited access to social services and financial resources. Though these beneficiaries were considered poor, these beneficiaries were able to build their own houses out from the small income they have from their farms.

Table 1: Socio – demographic profile of the coconut farmer beneficiaries

ITEM		FREQUENCY	PERCENT
Gender			
	Male	14	20
	Female	56	80
Total		70	100
Address			
	Kibawe, Bukidnon	70	100
Total		70	100
Age			
	70 years old above	11	16
	61 – 70 years old	9	13
	51 – 60 years old	31	44
	41 – 50 years old	11	16
	40 years old below	8	11
Total		70	100
Religion			
	Catholic	66	94
	Others (Jehovah's Witness and Baptist)	4	6
Total		70	100
Ethnicity			

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	Cebuano	58	83
	Boholano	11	16
	Ilocano	1	1
Total		70	100
Highest Educational Attainment			
	Elementary level	28	40
	High School level	36	51
	College level	2	3
	College graduate	4	6
Total		70	100
Employment Status			
	Employed	1	1
	Unemployed	0	0
	Farming	68	98
	Others	1	1
Total		70	100
Number of years as Coconut Farmer			
	20 years below	24	34
	16 – 20 years	8	11
	11 – 15 years	27	39
	5 – 10 years	9	13
	5 years below	2	3
Total		70	100
Ownership status of the farm			
	Owned	60	86
	Leased	0	0
	Tenanted	8	11
	Rented	2	3
Total		70	100
Housing ownership/ status			
	Owned	70	100
Total		70	100

Level of Attainment as Perceived by the coconut farmer beneficiaries

Table 2 below shows the farmer beneficiaries' perception towards the relevance of the general objectives of the KAANIB Enterprise Development Project (KEDP) in Kibawe, Bukidnon. In terms of relevance, the farmer beneficiaries' general perception was very much attained given the average mean of 4.3048.

The highest indicator of relevance is the indicator "Are the activities and outputs of the project is consistent with the intended impacts and effects which was to strengthen and intensify small coconut farmer organizations in providing support system and marketing assistance?" Which resulted to a mean value of 4.3571, with "very much attained" descriptive rating. According to the focus group discussion conducted, the project was able to provide support system in terms of training and raw materials on coconut sugar making and link the organization to the market through farmer field days and marketing forums inside and outside the region.

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The second highest indicator of relevance "Does the objective of the program still valid?". Has been perceived by most of the respondents as "very much attained", with 4.3286 weighted mean. Through the conduct of focus group discussion, it was found out that the project was able to create an integrated coconut based enterprise for the development of the coconut industry, able to make diversified products useful for additional income, gave access such as trainings to coconut sugar technology, and was able to create a gender equal working environment.

The indicator of relevance "Are the activities and outputs of the program are consistent with the overall goal and the attainment of objectives?" resulted to a mean value of 4.2286 with a "very much attained" descriptive rating. Hence, the activities and outputs of the program is still relevant with the goal and attainment of the program which was to increase income of the farmers, address food security in the community and was able to generate jobs for the people in the organization as gathered during the focus group discussion.

Table 2: Level of attainment of the KAANIB Enterprise Development Project objectives in terms of relevance

	INDICATORS	WEIGHTED MEAN	DESCRIPTIVE RATING
1	Does the objective of the program still valid?	4.3286	Very Much Attained
2	Are the activities and outputs of the program consistent with the overall goal and the attainment of its objectives?	4.2286	Very Much Attained
3	Are the activities and outputs of the program consistent with the intended impacts and effects?	4.3571	Very Much Attained
Average Mean		4.3048	Very Much Attained

Legend:

Range		Descriptive Rating	Qualitative Interpretation
0.01 – 1.00	-	Not Attained	Not Accomplished
1.01 – 2.00	-	Less Attained	Less Accomplished
2.01 – 3.00	-	Moderately Attained	Moderately Accomplished
3.01 – 4.00	-	Much Attained	Much Accomplished
4.01 – 5.00	-	Very Much Attained	Very Much Accomplished

Table 3 shows the level of attainment of the KAANIB Enterprise Development Project (KEDP) objectives in terms of effectiveness as perceived by the farmer – beneficiaries in Kibawe, Bukidnon. In terms of effectiveness, the farmer beneficiaries' general perception was "very much attained" given the average mean of 4.3143.

The indicator of effectiveness "Does the major factors in achieving the objectives of the project was effective?", got the highest weighted mean average of 4.4143, with a "very much attained" descriptive rating. Based on the findings, the project was able to add income of farmer beneficiaries and generate jobs because according to the data validation, members who do not

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have enough income was hired and still gets their share as member of the organization, thus, jobs were generated.

The indicator of effectiveness "Does the program increases the income of the farmer – beneficiaries?" was perceived by most of the respondent perceived as "very much attained", with a 4.3286 weighted mean. Hence, the project gives additional income to the farmer – beneficiaries. Before the KEDP started in their community, the beneficiaries were just tilling corn, rice, and coconut. Sometimes buying price of these commodities would just equate the farmers' sales and their expenses.

In the presence of the KEDP – CHLCPP component, the farmers were able to add income that they used to purchase additional assets useful for their daily living. The indicator of effectiveness states that the objectives of the program are likely to be achieved, which resulted to a 4.3 mean with a "very much attained" descriptive rating. Hence, the objectives of the program in increasing the farmers' income, addressing food security, and generating jobs were effective.

The indicator of effectiveness "Does the project provide livelihood to farmer beneficiaries?" resulted a weighted mean of 4.2143, with a "very much attained" descriptive rating. Hence, the project provides livelihood to the members of the organization. According to the farmers during validation, due to the livelihood provided by the Philippine Coconut Authority, members became pro – active in joining each monthly meeting for additional knowledge of current events and projects from the government.

Table 3: Level of attainment of the KAANIB Enterprise Development Project objectives in terms of effectiveness

	INDICATORS	WEIGHTED MEAN	DESCRIPTIVE RATING
1	Does the objective of the project likely to be achieved?	4.3	Very Much Attained
2	Does the major factors in achieving the objectives of the project effective?	4.4143	Very Much Attained
3	Does the project increase farmer – beneficiary's income?	4.3286	Very Much Attained
4	Does the project provide livelihood to farmer – beneficiaries?	4.2143	Very Much Attained
Average Mean		4.3143	Very Much Attained

Legend:

Range		Descriptive Rating	Qualitative Interpretation
0.01 – 1.00	-	Not Attained	Not Accomplished
1.01 – 2.00	-	Less Attained	Less Accomplished
2.01 – 3.00	-	Moderately Attained	Moderately Accomplished
3.01 – 4.00	-	Much Attained	Much Accomplished
4.01 – 5.00	-	Very Much Attained	Very Much Accomplished

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Table 4 shows the level of attainment of the KAANIB Enterprise Development Project (KEDP) objectives in terms of sustainability as perceived by the farmer – beneficiaries in Kibawe, Bukidnon. In terms of sustainability, the farmer beneficiaries' general perception was "very much attained" given the average mean of 4.4471.

The highest sustainability indicator states "Does the benefits of the project continue after the funding of the donor?" revealed a 4.5741 mean with a "very much attained" descriptive rating.

According to the farmers during data validation, the operation stopped because one of the coconut toddy collectors termed as "managuete" died and only one was left. Thus, the organization is still operating but on an order basis only.

Since they were given the complete set of technology like coconut "pugon", big wokes, big ladles, the operation continues after donor funding but on small amounts only. The beneficiaries were hoping to have a training for coconut toddy collectors to increase their production of coconut sugar.

The sustainability indicator which states "Does the resources like machineries and equipment given by the Philippine Coconut Authority to the beneficiaries helps in sustaining the income of the farmer beneficiaries?" had resulted to a mean value of 4.5286 with a "very much attained" descriptive rating. Hence, the items given by the Philippine Coconut Authority is useful in adding income to the beneficiaries.

The sustainability indicator "Does seminars and trainings help the farmer beneficiaries in managing and maintaining the project's feasibility?" was perceived by most of the respondent as "very much attained" with a 4.5143 weighted mean.

It is evident that the program gives additional knowledge to the farmer – beneficiaries through trainings and seminars for the sustainability of the project and increase or additional income of the farmers.

The last but not least sustainability indicator which states "Does that the major factors in achieving the objectives of the project influences the sustainability of the project?" had resulted to a weighted mean average of 4.1714 with a "very much attained" descriptive rating.

This finding revealed that major factors in achieving the objectives which was to increase income, address food security and generate job of the project influenced the sustainability of the project.

According to the focus group discussion conducted, recipients who feel valued have high commitments and can help the organization sustain in the long run.

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Table 4: Level of attainment of the KAANIB enterprise Development Project objectives in terms of sustainability

	INDICATORS	WEIGHTED MEAN	DESCRIPTIVE RATING
1	Does the benefits of the project continue after the donor funding?	4.5741	Very Much Attained
2	Does the major factors in achieving the objective of the project influences the sustainability of the project?	4.1714	Very Much Attained
3	Does seminars and training helps the direct farmer beneficiaries in managing and maintaining the project's feasibility?	4.5143	Very Much Attained
4	Does the resources like machineries and equipment given by the Philippine Coconut Authority to the beneficiaries helps in sustaining the income of farmers?	4.5286	Very Much Attained
Average Mean		4.4471	Very Much Attained

Legend:

Range		Descriptive Rating	Qualitative Interpretation
0.01 – 1.00	-	Not Attained	Not Accomplished
1.01 – 2.00	-	Less Attained	Less Accomplished
2.01 – 3.00	-	Moderately Attained	Moderately Accomplished
3.01 – 4.00	-	Much Attained	Much Accomplished
4.01 – 5.00	-	Very Much Attained	Very Much Accomplished

As stated by Dudzinska et al. (2017), education affects openness to changes. Better educated farmers are more willing to respond positively to change. Also, according to a study by Silva et al. (2020), farmers have a positive perception towards the establishment of support systems for coconut industry development. The respondents believe that these systems can improve the quality of their produce, increase their income, and enhance their livelihoods. However, the success of these support systems depends on several factors such as accessibility, affordability, and the quality of the services provided.

Accessibility to information is a vital aspect in the success of support systems for the development of the coconut industry. Farmers must have easy access to these support systems in order to properly benefit from them (Silva et al., 2020). According to Ndoen et al. (2018), a significant barrier for coconut growers is a lack of access to support services. They proposed that increasing the accessibility of support systems could boost agricultural production and income.

According to the data validated through focus group discussion, beneficiaries from Kibawe, Bukidnon was visited either monthly or quarterly depending on the available time of the agriculturist in charge in the area. The beneficiaries were excited whenever they get to be visited because they get to showcase their product to the agriculturist in charge.

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Affordability is another critical factor for the success of support systems for coconut industry development. Most of the beneficiaries were unemployed and only depend on farming as a source of income. The second highest weighted mean after result consolidation was to let the farmer beneficiaries apply for government interventions for economic improvement. These interventions are free as long as the farmers can sustain the livelihood given to them. According to a study by Rambaldi et al. (2018), the cost of support systems can be a barrier for farmers, particularly small-scale farmers who do not have the financial capacity to access these services.

And the quality of the services provided is crucial for the success of support systems for coconut industry development. Farmers expect high-quality services that meet their needs and expectations. The third, fourth and fifth statements according to weighted means explains the quality of services the Philippine Coconut Authority or the implementing agency gives to its beneficiaries. According to a study by Girsang et al. (2021), farmers who are satisfied with the quality of support services are more likely to use them regularly and benefit from them.

Thus, the farmer beneficiaries see KEDP as an integrated coconut – based enterprise that supports in establishing and developing the coconut industry if proper accessibility to information, affordability of raw materials, and quality of the services provided.

Table 5 shows the perception of the farmer beneficiaries towards the establishment of support systems for the development of the coconut industry in Kibawe, Bukidnon. The first objectives states that the KEDP encourages integrated coconut - based enterprises by establishing support systems for coconut industry development. The average weighted mean was 4.4572. Which shows a Very Much Attained descriptive rating.

The average weighted mean for the first objective was 4.4572 showing a very much attained objective according to the farmer beneficiaries in Kibawe, Bukidnon. Hence, they are positive of the establishment of support system for coconut industry development in their municipality.

The highest mean was the information dissemination about KEDP by the Philippine Coconut Authority. According to the beneficiaries, the PCA Bukidnon Provincial Office went to their municipality to introduce the project and asked them to prepare paper works. Since the organization was considered proactive to government extension projects, they were prioritized.

The second highest mean was the Philippine Coconut Authority conducting monthly monitoring of the projects given with a weighted mean of 4.5429. During focus group discussion, it was found out that they were visited quarterly but being called monthly as a form of monitoring to cater all the areas assigned to the agriculturist. Nonetheless, they were still satisfied with the monitoring of the in charge.

The third highest mean indicates a weighted mean of 4.4286. Beneficiaries were encouraged to apply for government interventions. According to the beneficiaries, the Philippine Coconut Authority pushed the organization to apply for these interventions. Also, the Philippine Coconut Authority were very hands on in helping the beneficiaries in the paper works and gets the needed certifications from concerned agencies.

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The Philippine Coconut Authority also linked the organizations to the market. The PCA invited the organization to market field days and forums. They were invited before to display their coconut sugar in SM Cagayan de Oro city, Misamis Oriental. This way, the organization was introduced to the market and has a direct linkage to the buyers.

According to the beneficiaries during focus group discussion, before project implementation they have no knowledge to any business proposal writing. When KEDP was introduced, one of the requirements was to produce a business proposal. The beneficiaries then seek help to the PCA and then the PCA invited speakers to train for the business proposal writing. It was the lowest because the beneficiaries were not given enough time to prepare for the business proposal, the training time was just short and there were still a lot of topics that needs to be discussed. Nonetheless, the beneficiaries were still grateful for the knowledge imparted to them regarding business proposal writing.

Table 5: Farmer – beneficiaries' perception towards the establishment of support systems for coconut industry development

	INDICATORS	WEIGHTED MEAN	DESCRIPTIVE RATING
1	Information dissemination about KEDP were conducted by the Philippine Coconut Authority and LGU concerned.	4.5429	Very Much Attained
2	The CBO's/ MSME's was encouraged to apply for government interventions for economic improvement.	4.4286	Very Much Attained
3	The Philippine Coconut Authority conducts trainings in business proposal writing.	4.3571	Very Much Attained
4	The Philippine Coconut Authority and other government agencies linked the CBO's and MSME's to the market.	4.4143	Very Much Attained
5	The Philippine Coconut Authority conducts monthly monitoring of the projects given.	4.5429	Very Much Attained
Average Mean		4.4572	Very Much Attained

Legend:

Range		Descriptive Rating	Qualitative Interpretation
0.01 – 1.00	-	Not Attained	Not Accomplished
1.01 – 2.00	-	Less Attained	Less Accomplished
2.01 – 3.00	-	Moderately Attained	Moderately Accomplished
3.01 – 4.00	-	Much Attained	Much Accomplished
4.01 – 5.00	-	Very Much Attained	Very Much Accomplished

The result of the study corroborates with the study conducted by Bramley et al. (2017); Elnagheeb et al. (2020) that states that the success of farm diversification and value-adding technologies may depend on the level of support and incentives provided by governments and other stakeholders. For example, providing training and extension services to farmers on these strategies can help to increase their knowledge and awareness of their potential benefits.

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Thus, the farmer beneficiaries perceived KEDP as a coconut – based enterprise model that provides diversification and value – adding to the coconut especially on the low buying price of copra in the market, and thereby improving the economic condition in the locality.

Table 6 shows the perception of the farmer beneficiaries towards farm diversification and value – adding technologies. The second objectives states that the KEDP provides coconut – based enterprise model through farm diversification and value – adding technologies as managed by the CBO or MSMEs for economic improvement. The average weighted mean was 4.4086. These data shows a very much attained descriptive rating. Also, for the program to be near perfection, a consultation with the farmers in a form of needs assessment should be done before the start of the program in order for the funding agency to identify properly the needs of the community and the farmer beneficiaries.

The highest indicator was the PCA gave the chance to the organization to manage the technologies given with a mean average value of 4.5857. Since the organization was proactive to government extension projects, they were also given the chance to manage their own enterprise development project. Thus, the technology given by the PCA was to promote value – adding to coconut products by processing raw materials into finished products.

The organization received coconut sugar processing technologies like coco pugon, big woks, big ladles, "sanggot', gallons, that were needed to produce coconut sugar, thus, gives rise to the next highest mean with a value of 4.4286. The organization were also given raw materials like coconut tree with cultivars suited for coconut sugar production. According to them, their job is just to attend trainings and produce coconut sugar because all the needed materials and equipment were already given.

Also, according to the farmers, they also received banana seedlings, cacao seedlings that can be use for additional income generating crops in their farms. Which was the third highest mean value of 4.3571. The seedlings were given and recommendations were also given to them to plant the banana and cacao seedlings under the coconut tree for shading, thus, intercropping.

The next highest mean has a value of 4.3571 where the beneficiaries were trained to do coconut sugar. Before the project, the beneficiaries only knew how to grow coconut tree and make copra. With the presence of the KEDP – CHLCPP component, their knowledge to coconut value – adding widens. They were trained and given technologies for them to increase income, address food security and generate jobs in the community.

Lastly, the lowest mean has a value of 4.3286. Socio demographic data shows an aging population of farmers. Thus, most of the farmers were at retirement age. They only know the traditional cultural management practice of growing coconut tree. But with the presence of KEDP, the knowledge the beneficiaries gained was added, new techniques were taught and new technologies were given.

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Table 6: Farmer – beneficiaries' perception towards farm diversification and value – adding technologies

	INDICATORS	WEIGHTED MEAN	DESCRIPTIVE RATING
1	KEDP beneficiaries has received additional knowledge about coconut production through trainings.	4.3286	Very Much Attained
2	KEDP beneficiaries received seedlings from the project other than coconut.	4.3571	Very Much Attained
3	KEDP beneficiaries were able to have hands on experience on value adding of coconut processing such as VCO Processing, Coco Coir Making and Cocosugar Production.	4.3429	Very Much Attained
4	Coconut Based Organizations/ Micro, Small and Medium Enterprises were able to receive coconut technologies for coconut processing and value adding.	4.4286	Very Much Attained
5	Coconut Based Organizations/ Micro, Small and Medium Enterprises were given the chance to manage the technologies given.	4.5857	Very Much Attained
Average Mean		4.4086	Very Much Attained

Legend:

Range		Descriptive Rating	Qualitative Interpretation
0.01 – 1.00	-	Not Attained	Not Accomplished
1.01 – 2.00	-	Less Attained	Less Accomplished
2.01 – 3.00	-	Moderately Attained	Moderately Accomplished
3.01 – 4.00	-	Much Attained	Much Accomplished
4.01 – 5.00	-	Very Much Attained	Very Much Accomplished

Table 7 shows the perception of the farmer beneficiaries' easy access to farm technology production, market linkages and credit facilities in Kibawe, Bukidnon. The third objectives states that the KEDP helps beneficiaries have easy access to farm technology production, market linkages and credit facilities. The average weighted mean was 3.4371. These shows only a much attained descriptive rating.

The results of the study relates to a study conducted by De los Santos and Aragon (2019) that the implementation of the Comprehensive Agrarian Reform Program (CARP) in the Philippines resulted in an increase in the income of farmer beneficiaries. The study found that the average annual income of farmer beneficiaries increased from PHP 49,695.42 to PHP 94,369.44 after they received land ownership under the program. This significant increase in income can be attributed to the beneficiaries' improved access to resources and credit, as well as their ability to make independent decisions about their land use and agricultural production.

If credit facilities were available then the farmers could apply for credit to financed their farms. Thus, the farmer beneficiaries of KEDP has a hard time in finding credit facilities or lending conduits in financing their coconut farms. With the rising prices of labor, acquiring raw materials such as coconut for processing is very hard because there are only few people who

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would accept the low price of labor in the community. Before the KEDP was implemented the only income that the beneficiaries had was sale from corn, rice and copra, accordingly. With the presence of KEDP at present times, the farmer beneficiaries' income was added. They were able to buy things they were just dreaming of before. Thus, the highest mean value of 4.6714 was achieved.

The next highest mean was 4.5286. The farmer beneficiaries were trained by the Department of Trade and Industry with regards to proper labelling and packaging of the produce product. This was done for them to be invited to farmer field days and market forums. In order for the product to compete to other local products. It was also done to link the beneficiaries to different markets inside and outside the province.

Kibawe, Bukidnon's coconut sugar was on an order basis only. Due to the death of their coconut toddy collector, the organization cannot cope up with the demand of the market. The board of members then decided to make it as order basis. The direct channels were the direct buyers of the organization who contacted them in the first place. Thus, a mean value of 4.3143 which was the third highest mean value calculated. Both indicators regarding credit facilities were the lowest, 1.8857 and 1.7857, because there was no credit involve in the project, accordingly. But they are willing to try to apply for loans if time permits. According to them, it was easy then to have no credits.

Table 7: Farmer – beneficiaries' perception on the access to farm technology production, market linkages and credit facilities

	INDICATORS	WEIGHTED MEAN	DESCRIPTIVE RATING
1	Income of beneficiaries has increased.	4.6714	Very Much Attained
2	Coconut Based Organizations/ Micro, Small and Medium Enterprises has direct channel of distribution to dispose their product.	4.3143	Very Much Attained
3	Products were linked to the market with the help of the Philippine Coconut Authority and other government agencies.	4.5286	Very Much Attained
4	Banks and Lending Conduits such as cooperatives linked by the Philippine Coconut Authority and other government agencies accepts credit from coconut farmers.	1.8857	Less Attained
5	The beneficiaries have high approval in terms of credit.	1.7857	Less Attained
Average Mean		3.4371	Much Attained

Legend:

Range		Descriptive Rating	Qualitative Interpretation
0.01 – 1.00	-	Not Attained	Not Accomplished
1.01 – 2.00	-	Less Attained	Less Accomplished
2.01 – 3.00	-	Moderately Attained	Moderately Accomplished
3.01 – 4.00	-	Much Attained	Much Accomplished
4.01 – 5.00	-	Very Much Attained	Very Much Accomplished

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Table 8 shows the perception of the farmer beneficiaries towards the importance of every member especially women in Kibawe, Bukidnon. The fourth objectives states that the KEDP gives important to every member especially women, to be successful entrepreneurs using coconut as medium. The average weighted mean was 4.8829, which shows a very much attained descriptive rating. According to a farmer beneficiary during data validation, women nowadays are more empowered and can do things like what men are doing unlike the traditional ways.

The results of the study supports with the statement expressed by IFAD (2011) that women empowerment in agriculture has been recognized as an important factor in achieving sustainable development and food security. According to the United Nations, women make up about 43% of the agricultural workforce worldwide and play a significant role in agricultural production (FAO, 2011). However, women face numerous challenges in agriculture, such as lack of access to land, credit, and markets, as well as gender-based discrimination and cultural barriers (IFAD, 2011).

Thus, the farmer beneficiaries identify women as part of the group, includes women in the decision – making and made the organization a gender equal organization.

The highest mean value was 4.9429. Most of the members of the Natulongan Small Coconut Farmers Organization in Kibawe, Bukidonon were females. The members were compensated fairly and treated equally. The women members were given jobs that also men can do. They have a part time coconut toddy collector that is a woman. Accordingly, they are happy and contented with the situation.

The next highest mean was 4.9. The organization promotes gender equality because the organization believes that for the organization to work you need both men and women cooperation, there were also LGBTQ members of the organization. Just like a happy household, having a Mother and Father, an organization should also have men and women for it to work together.

Because of the KEDP, more jobs were generated. Thus, giving rise to the next highest mean which was 4.8857. The presence of the coconut sugar processing encourages every member to be involved. Everyone was encouraged to join the workforce since the benefits of the program were for the members as well.

The organization is currently headed by a woman who was involved in different decision-making environments. Thus, the next highest mean was 4.8714. According to them, a woman as president in an organization makes the organization organized and well because of the detailed oriented attitude of a woman, accordingly.

And the lowest mean value was 4.8143. According to the data gathered during focus group discussion, the president and vice president were the ones who were sent to trainings and they were the ones who will be teaching the members. Both president and vice president were women. Thus, the organization believes that women can be trained and can train for value adding and coconut processing.

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Table 8: Farmer – beneficiaries' perception towards giving importance to every member especially women

	INDICATORS	WEIGHTED MEAN	DESCRIPTIVE RATING
1	Women were part of the decision making.	4.8714	Very Much Attained
2	Women were trained to work for the value adding and coconut processing.	4.8143	Very Much Attained
3	Women were treated and were compensated fairly.	4.9429	Very Much Attained
4	The Coconut Based Organizations/ Micro, Small and Medium Enterprises encouraged every member to be part of the workforce.	4.8857	Very Much Attained
5	The Coconut Based Organizations/ Micro, Small and Medium Enterprises promotes gender equality in the workplace.	4.9	Very Much Attained
Average Mean		4.8829	Very Much Attained

Legend:

Range		Descriptive Rating	Qualitative Interpretation
0.01 – 1.00	-	Not Attained	Not Accomplished
1.01 – 2.00	-	Less Attained	Less Accomplished
2.01 – 3.00	-	Moderately Attained	Moderately Accomplished
3.01 – 4.00	-	Much Attained	Much Accomplished
4.01 – 5.00	-	Very Much Attained	Very Much Accomplished

CONCLUSION

The KAANIB Enterprise Development Project (KEDP) benefited small-scale farmers, mostly Cebuanos, nearing retirement age. The project aimed to provide relevance, effectiveness, sustainability, support for coconut industry development, farm diversification, value-adding technologies, and importance to all members, especially women. The project also provided access to farm technology production, market linkages, and credit facilities, enhancing livelihoods and family income. Despite challenges in financial needs acquisition, the project achieved desired results.

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DOI: 10.5281/zenodo.11147037

Literature Cited

1) Abbott, R. (2019). Ratio Analysis: Gross Profit Margin. GuruFocus.

2) Bramley, C., Herrero, M., Stirling, C., & Richards, R. (2017). The role of government in supporting innovation by Australian farmers. International Journal of Innovation and Sustainable Development, 11(1), 35-51.

3) De los Santos, C.C., & Aragon, C. C. (2019). An Assessment of Comprehensive Agrarian Reform Program (CARP) Beneficiaries' Livelihood Improvement in the Philippines. Asia Pacific Journal of Multidisciplinary Research, 7(3), 17-24. doi: 10.2478/apjmr-2019-0016

4) Dudzinska, M., Prus, B., Bacior, S., & Kowalczyk, C. (2017). Farmers' educational background, and implementation of agricultural innovations illustrated with an example of land consolidation. Retrieved from https://llufb.llu.lv.conference.REE.2017 .Latvia.Univ.Agricult.REEP.proceedings-268-276.

5) Elnagheeb, A. H., Mohammed, A. A., & Hossain, M. A. (2020). Agricultural policies and diversification of farming systems in Sudan. Land Use Policy, 99, 104924.

6) FAO. (2011). The State of Food and Agriculture 2011: Women in Agriculture: Closing the Gender Gap for Development. Rome: FAO.

7) Francis, C., Nicolaysen, A.M., Morse, S., Breland, T.A., & Lieblen, G. (2014). Bridging farming experience and science: Learning for agroecological design of sustainable farming systems. Retrieved from https://orgprints.org/24012/1/24012%20BRIDGING%20FARMMER%20 EXPERIENCE%20AND%20SCIENCE_MM

8) Girsang, W. Y., Runtunuwu, E. K., & Sihombing, A. S. (2021). Farmers' Satisfaction on Coconut Planting Material Support Services in North Sumatra Province, Indonesia. IOP Conference Series: Earth and Environmental Science, 752(1), 012031.

9) IFAD. (2011). Rural Poverty Report 2011: New Realities, New Challenges: New Opportunities for Tomorrow's Generation. Rome: IFAD.

10) International Labour Organization. (2018). Coconut Farming in the Philippines: An Overview of Challenges and Opportunities. Retrieved from https://www.ilo.org/wcmsp5/groups/public/---asia/---robangkok/documents/publication/wcms_632718.pdf

11) Inso, F.A. (2018). Declining farmer population. Retrieved from https://cebudailynews.inquirer.net/191635/declining-farmer-population.

12) Jimenez, M. A. L., Santos, P. B., & Gomez, M. L. (2018). Economic contributions of agriculture in Bukidnon, Philippines. Bukidnon State University Research Journal, 7(1), 1-13.

13) Lu, J.L. (2007). Gender differentiation among farmers in the agricultural sector in Benguet, Philippines. Retrieved from https://pdfs.semanticscholar.org/a621/575789d2943c7beb295b399ec32c6dcc5fe3.

14) Ndoen, M. J., Bumame, S. O., & Sopamena,J. (2018). Developing a sustainable coconut plantation: Challenges and opportunities in North Sulawesi, Indonesia. Asian Journal of Agriculture and Rural Development, 8(1), 40-51.

15) Philippine Coconut Authority. (1978). *Revised Coconut Industry Code.* Quezon City: Offical Gazette.

16) Philippine Coconut Authority. (2018). *PCA Programs and Projects.* Quezon City: Philippine Coconut Authority.

17) PSA (Philippine Statistics Authority). (2009). Women in agriculture. Retrieved from https://psa.gov.ph/content/women-agriculture.

The Seybold Report
ISSN 1533-9211
DOI: 10.5281/zenodo.11147037

18) PSA (Philippine Statistics Authority). (2010). 2010 census of population and housing in Bukidnon. Retrieved from https://psa/gov.ph/sites/default/files/BUKIDNON_FINAL%20PDF.

19) PSA (Philippine Statistics Authority). (2013). The educational attainment of the household population (2010 census). Retrieved from https://psa.gov.ph/content/educational-attainment-household-population-results-2010-census

20) Philippine Statistics Authority. (2018). *Selected Statistictics on Agriculture.* Quezon City: Philippine Statistics Authority.

21) Rambaldi, G., Yatbantoong, N., Wattanapenpaiboon, N., & Wahlqvist, M. L. (2018). "Growing old gracefully": a pilot study of the challenges for smallholder coconut farmers in Thailand in maintaining productivity and sustainability. Journal of Agriculture and Rural Development in the Tropics and Subtropics, 119(1), 1-14.

22) Silva, A. M. A., de Sá, V. F., Lavorante, A. F., de Sá, R. F., & Furtado, A. L. (2020). Perception of coconut farmers in the state of Pernambuco on the use of a service centre for their agribusiness. Revista Caatinga, 33(1), 91-100.

23) Sivapragasam, C., Krishna, V. V., & Krishnasamy, V. (2019). Determinants of adoption and intensity of adoption of coconut cultivation technologies by farmers in Tamil Nadu, India. Agricultural Research, 8(2), 183-191. doi: 10.1007/s40003-019-00329-1

24) World Bank. (2020). *Transforming Philippine Agriculture During COVID - 19 and Beyond.* The World Bank IBRD IDA| World Bank Group.