

# Kankanaey and Ibaloi Communities and Local Government Partnership for Local Level Farming Adaptation Priorities for Resiliency and Food Security

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**Abstract** - *The basic and direct services of the local government units (LGU) mandated by law assure indigenous farmers of a partner on agriculture improvement. In Pangasinan, the Mapita indigenous cultural community (ICC) composed of Kankanaey and Ibaloi people are residing in the mountainous part of Municipality of Aguilar with drought and limited water supply as their problems. With the request of the ICC farmers from LGU Aguilar, a partnership was formed. Data in this study were gathered from November 2018 to January 2019 through focus group discussion with ten ICC farmers who are members of the Mapita Tribal Council and an interview with Municipal Agricultural Officer of Aguilar. There were series of substantial training conducted by the LGU from 2014 to 2016, spearheaded by the Municipal Agricultural Office and in cooperation with a savings bank, related to pest control and management and production of high-valued crops like tomatoes and bell pepper. These high-valued crops were directly supplied to an institutional market. But their transaction with this institutional market is short-lived. The concerns of the Mapita ICC farmers are stories fabricated by farmers in other provinces on their former institutional market and agriculture in nature just like pest infestation and limited water supply. Social problems are along with disunity among tribe members and the decreasing number of young farmers. As to recommendations, the LGU should spearhead needed training on farming methodologies, provision of farm equipment, and monitoring of Mapita production. For the Mapita ICC, they should build a stronger and more united community and encourage their youth to engage in crop production.*

**Keywords** – *indigenous people, rainfed farming, partnership, resiliency, food security*

## INTRODUCTION

The share of the agriculture sector in Philippine's gross domestic product is 12 percent in 2010 [1] and 10 percent in 2015 [2]. This is the contribution of 29.1 million farmers in the whole country [3].

Moreover, the World Bank shows an average value added of the agricultural sector at 21.36 percent from 1960 to 2016 with a minimum computed percentage of 9.65 in 2016 and a maximum of 31.06 percent in 1974. This is a sad truth that the percent of valued added from the agriculture sector is declining [4]. And since people need to consume food every day, farmers accommodate this need and strive to secure food security. The 1996 World Food Summit stated that food security is about the access of people to sufficient and safe food which meet their dietary needs [5].

There are 14 to 16 million indigenous peoples in the Philippines [6]. More than half

of the indigenous peoples are found in Mindanao while the rest are in Luzon and Visayas. Kankanaey and Ibaloi are residing in Cordilleras, Northern Luzon [7] and in Pangasinan. In Pangasinan, the Kankanaey and Ibaloi are living in Sitio Mapita, Barangay Laoag in Aguilar. Originally, they are from Bugyas, Benguet. In 1961, about four families from this community moved to Pangasinan in 1961. Sitio Mapita is located at the top of a mountain and approximately 18 kilometers away from Aguilar Municipal Hall. Farming is their main source of living but the area is vulnerable to drought. These are the same problems experienced by indigenous farmers in Ifugao [8] and Benguet [9]. However, there is literature that provides helpful tips for rainfed farmers. There are five indigenous farming practices that enhanced food security and these are agroforestry, crop rotations, mixed cropping, polyculture, and water harvesting [10]. Also, managerial practices

such as improved cultivars, water harvesting, and site-specific nutrient management are recommended under rainfed conditions [11]. These practices could be executed as part of community-based risk assessments, mitigation measures, and other capability building activities for resilient farm community just like what farmers did in Bokod, Benguet [9]. The indigenous farmers are challenged with agricultural and environment-related concerns, and they need partners to overcome these challenges.

## METHODOLOGY

The objectives of this study are to describe the assistance provided by the LGU to Kankanaey and Ibaloi indigenous cultural community (ICC) for local level farming adaptation priorities for resiliency and food security, the result of such partnership, and the current problems of Kankanaey and Ibaloi farmers. This case study was conducted from August 2018 to February 2019 in Aguilar, Pangasinan. The respondents of this study are Kankanaey and Ibaloi farmers in Sitio Mapita, Barangay Laoag, Aguilar. Based on the interview, they came from Bugyas, Benguet, moved to Sual, Pangasinan, and finally settled in Aguilar, Pangasinan in 1961. From four households, the Mapita ICC has a current number of 165 households.

This study followed the process required by the National Commission on Indigenous Peoples. Initial coordination of the researcher with the NCIP-Pangasinan Office officers Dr. Enrique P. Delos Santos, Jr., Atty. Allan O. Belde, and Mr. Lito S. Atiwen was carried out last September 5, 2018. In this meeting, the researcher was informed of the indigenous knowledge systems research and documentation. Required documents like an application form and research proposal were prepared and filed at the NCIP-Region Office 1 on October 25, 2018, as the basis for the issuance of Certificate of Precondition. After the approval was granted by the NCIP-RO1, the researcher attended the required activities like the conference and disclosure meeting with the Kankanaey and Ibaloi Mapita ICC leaders in November 26, the community decision meeting with Mapita ICC leaders in November 27, and the negotiation of terms and conditions and signing of memorandum of

agreement last December 4, 2018 in Sitio Mapita, Barangay Laoac in Aguilar. After the ICC leaders and the research proponent signed the memorandum of agreement with the presence of the NCIP-Pangasinan Office staff and faculty members of Pangasinan State University (PSU) in Sitio Mapita in Aguilar, the researcher prepared the interview guide as a research instrument for the focus group discussion. This instrument was made by the researcher, validated by faculty members of Pangasinan State University-Lingayen Campus, and approved by the NCIP-RO1.

There were ten Kankanaey and Ibaloi men and women farmers present during the focus group discussion in Mapita Tribal Hall, Barangay Laoac last January 17, 2019. It includes five (5) Mapita Tribal Council members, the Chieftain, and four (4) elders. They are farmers planting tomatoes, bell pepper, rice and other crops in Mapita. The respondents during the focus group discussion are qualified since they are all farmers and members of the Mapita Tribal Council. The information sought from farmer-respondents was validated through a personal interview with the Municipal Agricultural Officer Charito B. Rosario on February 1 in local government unit (LGU) Aguilar. The answers to key informants are presented in the next section.

## RESULTS AND DISCUSSION

There are 165 Kankanaey and Ibaloi families living in Sitio Mapita and farming is their main source of living. Some of their crops are rice, bell pepper, cucumber, Baguio beans, cabbage, tomato, peanuts, and corn. They are selling these crops every Tuesday, Friday, and Sunday in Aguilar market.

### *Assistance provided by the LGU to Kankanaey and Ibaloi indigenous cultural community*

In 2014, the Kankanaey and Ibaloi farmers started selling tomatoes and bell pepper to their institutional market, the Jollibee Corporation. This project is the result of the National Greening Program under the Ninoy Aquino administration where farmers situated in a mountainous area as the main beneficiaries. This program was launched in 2011 by virtue of Executive Order No. 26. It

was during these times when the massive information dissemination, technology transfer, and provision of farm equipment from LGU Aguilar took place. This partnership between the ICC farmers and the LGU Aguilar was formed through the request of the ICC farmers association for farm assistance.

As to assistance related to resiliency, the Kankanaey and Ibaloi farmers said that the LGU Aguilar through the Municipal Agricultural Officer (MAO) provided one water tank in 2014 and several trainings on pest management from 2014 to 2016. These services are expected to be delivered by the municipality. The Local Government Code of the Philippines stated that the main purpose of the creation of municipalities is to deliver basic and direct services including agriculture and fisheries. The farmers said that aside from LGU Aguilar, the Department of Agriculture (DA) provided polyethylene hose and seven water tanks from 2015 to 2016. This water system is helpful to the farmers since the source of water for farms is limited. The farmers are dependent on rain every wet season and spring water from the lower and farther side of the mountain. They store rain water in big clay pots. Water harvesting is useful for crop irrigation and during the dry season. This result is consistent with the finding of More on the positive result of capturing and storing water for later use [12]. For clarity, MAO explained that they only assist the ICC farmers in minor areas like controlling of pests and provision of one water tank. The one that provided most of the farm demonstrations, technical assistance, as well as the financial assistance and farm production supervision was Gulf Bank.

On the other hand, the farmers said that the pest problem started in 1990. They use pesticide to control pests like fruit fly and snail, and scarecrow for Maya. With road improvement project of Department of Agrarian Reform and Asian Development Bank that started in 2003, the farmers notice the increase of pests in their farms, thus pest control training provided by the LGU Aguilar were helpful but they need more effective ways to control it.

For food security, both MAO and the ICC farmers said that training on the

production of high-value crops was provided to twenty (20) farmers as well as the provision of seedlings and 4-wheel tractor from 2014 to 2016. These training were conducted in collaboration with Gulf Bank.

#### ***Result of the partnership***

With regards to the result of a partnership between the ICC farmers and LGU Aguilar, the farmers were able to plant and harvest crops even during the dry season. They harvested high-value crops like tomatoes and bell pepper. According to the farmers, they have supplied one thousand (1,000) kilos of tomatoes and five hundred (500) kilos of bell pepper twice a week to Jollibee Corporation from 2014 to 2016.

#### ***Problems of Kankanaey and Ibaloi farmers***

As to the current problems of ICC farmers, these are a water source, farm pests, and lost of the institutional market. According to reports, the government has not developed the needed infrastructure for farmers like irrigation system, drying facilities, and other facilities [4]. It has been four years since the LGU Aguilar and DA provided the water system. Now, polyethylene hose has breakage and holes. Some have electrical tapes to cover these holes and prevent further damage. However, they need new and longer hose from the water source to farm areas. For farm pests, the farmers said they are encountering low production because of fruit flies. As a local government that is mandated to assist farmers, MAO said that they are willing to provide pest control and management training if there will be a request coming from the ICC farmers. MAO only had one baseline survey conducted in 2016. For the lost of the institutional market, the farmers are frustrated for this. The Mapita ICC farmers said that some group of farmers in other province felt jealous of their booming farm business and able to construct negative stories and eventually succeeded in taking over the business of supplying tomatoes and bell pepper. The MAO knew about this and recommended Urdaneta City as their alternative market. But for now, the Mapita ICC sells its products in Aguilar every Tuesday, Friday, and Sunday.

MAO also revealed some reasons why Mapita ICC farmers are experiencing low

production of palay, tomatoes, bell pepper, and their usual planted crops. These are a decrease of a number of farmers, a faction among farmers, and their shift from high-value crops to bamboo. In the article, general manager Henk Hermans of the East-West Seeds Philippines said that young people's disenchantment in agriculture made farmers the second poorest sector in the Philippines [4]. The average age of Filipino farmers is 57-59 years old and only 25.96 percent of Filipinos are employed in the agricultural sector as of November 2017. Therefore, there is a great need to encourage the young population to get involved in crop production to ensure food security.

## CONCLUSIONS

The partnership between LGU Aguilar and Mapita ICC farmers is beneficial to the latter. This partnership resulted in the provision of basic services to farmers like a water tank and a series of training in 2014. These basic and direct services are mentioned in the Local Government Code of the Philippines. Aside from LGU Aguilar, the DA also provided water system. This farm assistance helped farmers to find ways to slowly control farm pests and to water their farms, thus attracted an institutional market for their tomatoes and bell pepper. However, their contract to an institutional market did not last long. This decrease in production demand resulted in low production. They are currently concentrating on the local market. The problems of the farmers are along agricultural, financial and social.

## RECOMMENDATIONS

On the part of the Municipal Agricultural Office of Aguilar, the Office should conduct a follow-up survey in order to know the status, problems, and possible farm assistance needed by Mapita ICC farmers. Another, this Office should also provide new hose to farmers to cover the distance from the source of water to the farmlands. There is also a need to introduce new and effective methodologies on fruit fly control and to assist the farmers in establishing Urdaneta City as a new local market of their crops. Lastly, a study on the profitability and sustainability of

bamboo production in Mapita is recommended.

On the other hand, the Mapita ICC farmers should maintain continuous and effective partnership with the Municipal Agricultural Office of Aguilar through submission of important farm production data, farm-related problems, and proposals or request needed for the provision of basic services and farm equipment and product marketing. The farmers should also encourage some younger but committed people to engage in farming to increase their number. Finally, the Mapita Tribal Council should rebuild a better community with a strong sense of unity and cooperation through shared responsibility and benefits.

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