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Scoping The Needs And Challenges Of Farmers And Fisherfolks In The AMIA (Adaptation And Mitigation Initiatives In Agriculture) Villages In San Francisco, Quezon Towards Developing A Community-Based Enterprise

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ABSTRACT

The climate change repercussions in the Philippines prompted the Department of Agriculture (DA) to come up with measures that will counter its economic effects, most especially among vulnerable and marginalized communities. The flagship program of DA to address this concern is the Adaptation and Mitigation Initiative in Agriculture (AMIA). This program intends to enable communities to manage risks of climate change while pursuing sustainable livelihoods through Climate Resilient Agri-Fisheries (CRA) approach. This study is a follow-up investigation on the inputs, training, and other activities given to the program's beneficiaries. Intending to develop a baseline for a community-based enterprise of the beneficiaries of the AMIA program in San Francisco, Quezon, this study attempted to uncover their needs and challenges that block their agricultural pursuits. Designed in a mixed-methods – sequential explanatory approach, the study used key informant surveys and conducted Focus Group Discussions (FGDs) in 3 barangays of the municipality where the AMIA villages are situated. These are Casay, Huyon-uyon, and Sto. Nino. Data revealed that their primary agricultural produce include banana, coconut, swine, poultry, yam, and rice. However, among these crops, yam was the top raw agricultural product with the potential for product development. The beneficiaries of the program expressed their interest in making products derived from yam. However, challenges as to sufficient training, adequate machinery and equipment, business capital, and market linkage were also apparent. In addition, the villagers also encounter problems concerning potable water supply and shortage of other ingredients. Taken all together, the identified needs and challenges required additional assistance and inputs to constitute a community-based enterprise. A plan of action for establishing a sustainable community-based enterprise as a result of this is hereby set forth.

Keywords: AMIA project, Climate change-resilient agriculture, Enterprise development, Social enterprise

Introduction

The climate change repercussions in the Philippines prompted the Department of Agriculture (DA) to come up with measures that will counter its economic effects, most especially among vulnerable and marginalized communities. The flagship program of DA to address this concern is the Adaptation and Mitigation Initiative

in Agriculture (AMIA). This program intends to enable communities to manage risks of climate change while pursuing sustainable livelihoods through Climate Resilient Agri-Fisheries (CRA) approach.

The results of the Climate Risks and Vulnerability Assessment (CRVA) conducted by Gutierrez, Colladilla, Villasanta, and Montero (2017) of Southern Luzon State University in 2015-2016 showed that among the 39 municipalities and two cities in the province of Quezon, the municipality of San Francisco has the highest risk or vulnerability index primarily because of its geographical location and low adaptive capacity rating. Because of this, the AMIA program was piloted by the DA Regional Field Office IVA in the said municipality along with Guinayangan, Quezon. AMIA Villages were formed in 3 barangays that include Casay, Huyon-uyon, and Sto. Nino. From the participatory CRVA with various stakeholders, including community leaders, elders, youth, women, farmers, and fishers, baseline data was generated to provide necessary interventions. In addition, Climate Resilient Agriculture (CRA) technologies were introduced by DA to the communities. This includes but is not limited to crop diversification, agroforestry, income source diversification, and planting multi-stress tolerant varieties.

Building on these previous efforts, further initiatives were implemented for the continuous improvement of the community. The work of Luistro, Gregorio, Narvacan, and Obligado (2019) on CRA in the CALABARZON Region highlighted the various interventions they introduced in San Francisco and Guinayangan. Participatory Learning Trials (PLT) were conducted in the said municipalities. In San Francisco, the identified priority commodities of the pilot barangays were rice, corn, yam, and native pig. Climate-resilient value chain interventions were done in training and seminars for corn charcoal briquette making, soybean processing, native pig meat processing, and business planning for yam powder processing. Yam Growers Cooperative was also put in place to ensure a more sustainable livelihood for the AMIA villagers.

Given the extensive provision of CRA technologies and interventions among these communities in San Francisco, Quezon, it is expected that they will have sustainable income-generating activities. However, according to the Municipal Agriculturist Office (MAO) of the said local government, the COVID-19 pandemic has presented an enormous challenge among the villagers to continue their agricultural and entrepreneurial pursuits. Some community members were looking for reinforcement programs to assist them in advancing their produce and products to help them compete in the market, given the drastic change and sudden shift of the economic landscape due to the pandemic. They also had difficulty accessing more technology-driven markets. Therefore, revisiting the linkages between the AMIA villages and other support services agencies may be conducted to identify the community's present needs.

Guided by the results and recommendations of the previous research and development projects for AMIA villages in San Francisco, Quezon, it is vital to revisit the AMIA Villages villagers' anecdotal experiences, observations of the other stakeholders, and the conditions brought about by the COVID-19 pandemic. Through this, stakeholders can identify their needs in coming up with more viable products derived from their agricultural produce and forming a more sustainable enterprise that is climate-change resilient and relevant in the present time. A multi-approach and interdisciplinary community-based participatory action research approach will be undertaken to ensure that all the gaps and needs of the stakeholders will be uncovered to form new intervention strategies that will address the hindering factors for the sustainability of the community-based enterprise.

Objectives of the Study

The study was intended to assess the needs and challenges of AMIA villagers in making a sustainable community-based enterprise.

Specifically, this sought to:

1. Identify the different agricultural products available in AMIA Villages;
2. Determine the existing products derived from agricultural produce in AMIA Villages;
3. Assess the level of knowledge and skills of the villagers on product and enterprise development;
4. Find out the training preferences of the villagers for product and enterprise development; and
5. Recognize the challenges faced by the villagers related to product and enterprise development.

Methodology

Research Design

This project was carried out using a multi-approach and interdisciplinary community-based participatory action research (CBPAR). CBPAR is an applied research methodology that actively involves stakeholders throughout the research process at a community level. This approach is well-suited to the nature of the project since it will enable farmers within the AMIA villages to analyze, elicit, and evaluate their situations and develop a common perspective on their needs, local knowledge, agricultural practices, community potentials, and business endeavors. It is a research framework that aims to address the practical concerns of people in a community and fundamentally changes the roles of the researcher and who is being researched. “The CBPAR framework begins with a community’s issue, proposed action, or strategy and then supports or enhances this action with research that is community-based and engaged” (Burns, Cooke, & Schweidler, 2011, p. 5). It is an assessment and learning process that empowers farmers to create the information base for participatory

planning and action. Outsiders (i.e., project team, market stakeholders, extension workers) contribute facilitation skills and external information and opinions.

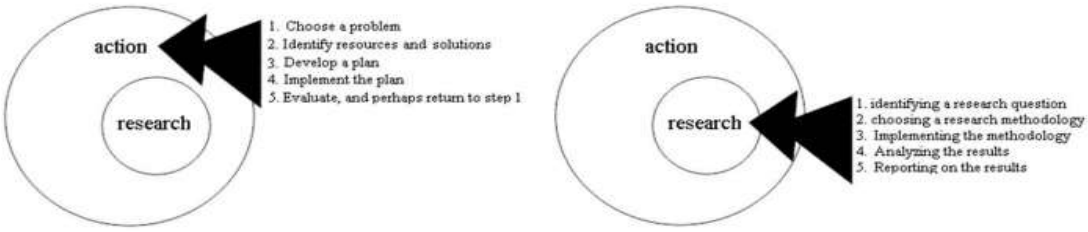

Figure 1. **Community-based Participatory Action Research Framework**
(Burns et al., 2011)

Research Locale and Participants
San Francisco is identified with a high vulnerability index (Gutierrez et al., 2017). It is situated in the southern tip of Quezon province. The land resources of San Francisco are predominantly used for crop production, which is the primary source of livelihood among their residents. They engaged in farming and fishing as their economic activity. To address the pressing issue encountered by San Francisco as one of the municipalities with the highest climate vulnerability, the DA-BAR implemented the AMIA village project in Casay, Huyonuyon, and Sto. Niño. Through this project, participants identified priority commodities: rice, corn, and yam. The project introduced technologies and innovations among the participants to increase farm productivity and income. Furthermore, linkages with support services such as credit, insurance, and market enhanced resilience capacity of agri-fisheries communities were also introduced.
The study involved 49 completely enumerated participants from AMIA villages at Brgy. Casay Casay, Brgy. Huyon-uyon, and Brgy. Sto. Niño, San Francisco, Quezon. Their average age is 50 with youngest at the age of 17 and the oldest at the age of 82. Forty five percent are males while 55% are females. An overwhelming majority (82%) are married. On average, they have 5 dependents and earn an average monthly income amounting to 4,808.16 pesos. In terms of number of years in farming, the average is 26 years, the least is less than a year, and the longest is 56 years. Most of them reached elementary level (61.22%).

Research Instruments
In this study, the researchers used key informant surveys, semi-structured interviews, and Focus Group Discussions (FGDs). The survey instrument was developed by the researchers. This is composed of 5 parts. The first part covers the profile of the participants, the second one refers to their agricultural produce, the third part is focused on the products derived from the produce, the fourth part intends to uncover their training needs, and the last one is for the challenges they are encountering. Meanwhile, the FGD guide is formatted as a semi-structured interview with 4 major questions with corresponding prompts that reflect the objectives of their study. Both instruments were developed based on the reports on the previous activities conducted at the AMIA villages of San Francisco, Quezon and underwent expert validation and pilot testing to ensure its validity.

Data Gathering Procedures and Ethical Considerations
Necessary permits and coordination protocols were secured from concerned government offices along with research clearance. Guidelines set by the Inter-Agency Task Force for the Management of Emerging Infectious Diseases were strictly complied. Both the key informant survey and the FGDs were conducted in August 2021 through face-to-face visits in the 3 barangays covered in this study. Informed consent forms were executed prior to data collection to explain the nature, terms, and conditions of the study.
The data collected formed a thorough assessment that will serve as a basis for farmers' knowledge, skills, and technology inputs to improve existing products and build new ones out of the agricultural produce. The data through this approach lead to participatory development cooperation that will involve training, seminars, orientation, technology transfer, establishing social support linkages, and other types of interventions which will be covered in the next phases of the project.
Data Analysis and Interpretation
Following the mixed-methods – sequential explanatory research design, the quantitative data were given more emphasis while the qualitative data were used to strengthen and validate the quantitative results. Quantitative data were reported through frequency count, percentage distribution, and rank while the qualitative data underwent coding and thematic content analysis. Member checking and inquiry auditing were undertaken as trustworthiness measures to secure validity of the results.

Results

The significant findings are presented following the order of specific objectives. Table 1 presents the type of agricultural products available in AMIA villages. As indicated in the table, most of the participants are

producing banana (83.67%), coconut (81.63%), corn (75.51%) swine (57.14%), poultry (53.06%), cassava (51.06%), yam or *ube* (42.86%), and rice (40.82%). Notably, only few are harvesting cacao (4.08%), freshwater fish (4.08%), soya bean (6.12%), and saltwater fish (10.20%). Others are also raising goats (34.69%) and producing ginger (26.53%).

Table 1. Types of agricultural products available in AMIA villages

Types of Agricultural Products	***f***	**Percentage**	**Rank**
Banana	41	83.67%	1
Cacao	2	4.08%	13.5
Cassava	25	51.02%	6
Coconut	40	81.63%	2
Corn	37	75.51%	3
Freshwater Fish	2	4.08%	13.5
Ginger	13	26.53%	10
Goat	17	34.69%	9
Poultry	26	53.06%	5
Rice	20	40.82%	8
Saltwater Fish	5	10.20%	11
Soya Bean	3	6.12%	12
Swine	28	57.14%	4
Yam	21	42.86%	7

N=49; multiple response

They also are engaging into livestock and poultry raising as an alternative to their common agricultural produce. There were instances that typhoons hit their plantations, to cope with: "*Meron sana kaming kikitin sa niyog, pero binagyo naman kaya until now ay walang kinikita kaya ngayon po ay aming pinagkakakitaan ay pag-aalaga ng baboy, kambing, itik, at manok*."

Table 2 exhibits the existing products derived from agricultural produce in the AMIA villages. Most of the villagers are making coconut charcoal (51.02%), dried fish (26.53%), coconut vinegar (22.45%), and rice-based delicacies or *kakanin* (20.41%). Other products that some of the farmers are making include baked products (8.16%), banana chips (8.16%), pepper (8.16%), sardines (8.16%), crispy corn (6.12%), turmeric powder (6.12%), yam or *ube* powder (6.12%), cassava starch (4.08%), coconut soap bar (4.08%), local cured sausage or *longganisa* (4.08%), smoked fish or *tinapa* (4.08%), and local wine or *lambanog* (4.08%).

Table 2. Existing products from agricultural produce in AMIA villages

Existing products from agricultural produce	***f***	**Percentage**	**Rank**
Baked Products	4	8.16%	6.5
Banana Chips	4	8.16%	6.5
Cassava Starch	2	4.08%	14
Coconut Vinegar	11	22.45%	3
Coconut Charcoal	25	51.02%	1
Coco Soap Bar	2	4.08%	14
Crispy Corn (*Cornik*)	3	6.12%	10
Dried Cured Meat (*Tapa)*	0	0%	-
Dried Fish (*Tuyo*)	13	26.53%	2
Local Cured Sausage (*Longganisa*)	2	4.08%	14
Pepper	4	8.16%	6.5
Rice-based Delicacies	10	20.41%	4
Sardines	4	8.16%	6.5
Smoked Fish (*Tinapa*)	2	4.08%	14
Soy Milk	0	0%	-
Cocoa Balls (*Tablea*)	0	0%	-
Turmeric Powder	3	6.12%	10
Yam (*Ube*) Jam	0	0%	-
Yam (*Ube*) Powder	3	6.12%	10
Wine (*Lambanog*)	2	4.08%	14

N=49; multiple response

Table 3 shows the level of knowledge and skills of the villagers on product and enterprise development. The descriptive results disclosed that almost all (91.84% to 100%) of the villagers have no knowledge and skills in product and enterprise development. All of the villagers have no knowledge and skills on the application for FDA license to operate. However, others (2.04%) have higher knowledge and skills on yam or *ube* powder

processing, meat processing, and vegetable processing. Further, some (2.04%) have moderate knowledge and skills on meat processing, baking, cooking, food hygiene, good manufacturing practices, financial literacy, and business planning. Interestingly, some were trained but still have low knowledge and skills on meat processing (4.08%), fruit processing (2.04%), vegetable processing (2.04%), fish processing (10.20%), baking (6.12%), cooking (4.08%), food hygiene (6.12%), good manufacturing practices (6.12%), standard sanitation operating procedure (2.04%), Philippine mandatory labelling and packaging (4.08%), marketing (2.04%), cost and benefit analysis or product costing (2.04%), basic accounting (2.04%), and business planning (2.04%).

The participants strongly expressed that they really need further trainings especially on the area of food processing. To them, this is something they can commence as a family business initiative: "*Yung food processing lang po, malaking tulong kung kami ay matututo nito. At even sabihin na pang family lamang yung magiging sistema ng pagpo-produce nito, at least may training kami, may kaalaman kami on how to do this product.*" This type of training can help intervene in their low profit business endeavors due to unfair market bargaining: "*May dadating na mamimili, binabarat naman kami. If ever matuto kami ng different sistema ng mga processing, kahit papaano kami ay kikita.*"

Meanwhile, some argued that they already underwent some trainings but those were not enough to make them proficient in a particular area. To make it effective, it should be continuous: "*Meron na po kaming naging training sa ube processing noon, training po sa kababaihan. Hindi lang po nagtuloy-tuloy dahil na din po sa pandemic.*"

Table 3. Level of knowledge and skills of the villagers on product and enterprise development

Trainings	High		Moderate		Low		No	
	f	%	*f*	%	*f*	%	*f*	%
Food Processing								
Yam (*Ube*) powder	1	2.04	0	-	0	-	48	97.96
Meat processing	1	2.04	1	2.04	2	4.08	46	93.88
Fruit processing	0	-	0	-	1	2.04	48	97.96
Vegetable processing	1	2.04	0	-	1	2.04	47	95.92
Fish processing	0	-	0	-	5	10.20	44	89.80
Baking	0	-	1	2.04	3	6.12	45	91.84
Cooking / Cookery	0	-	1	2.04	2	4.08	46	93.88
Food Hygiene	0	-	1	2.04	3	6.12	44	89.80
Good Manufacturing Practices	0	-	1	2.04	3	6.12	45	91.84
Standard Sanitation Operating Procedure	0	-	0	-	1	2.04	48	97.96
Philippine Mandatory Labelling & Packaging	0	-	0	-	2	4.08	47	95.92
Application for FDA License to Operate	0	-	0	-	0	-	49	100
Marketing	0	-	0	-	1	2.04	48	97.96
Cost and Benefit Analysis/ Product Costing	0	-	0	-	1	2.04	48	97.96
Basic Accounting	0	-	0	-	1	2.04	48	97.96
Financial Literacy	0	-	1	2.04	0	-	48	97.96
Business Planning	0	-	1	2.04	1	2.04	47	95.92

N=49

Table 4 features the preferred training of the villagers for product and enterprise development. The descriptive results revealed that the leading preference of the villagers for product development is yam (*ube*) power production (48.98%) while in terms of enterprise development the highly prefer business planning (48.98%). Meanwhile, the other leading training preferences include marketing (44.90%), vegetable processing (40.82%), financial literacy (26.53%), and fruit processing (24.49%).

Table 4. Training preferences of the villagers for product and enterprise development

Trainings	Preference		Rank
	f	%	
Food Processing			
Yam (*Ube*) powder	24	48.98	1.5
Meat processing	7	14.29	8
Fruit processing	12	24.49	6
Vegetable processing	20	40.82	4
Fish processing	2	4.08	13
Baking	4	8.16	9.5
Cooking / Cookery	8	16.33	7
Food Hygiene	3	6.12	11.5
Good Manufacturing Practices	4	8.16	9.5
Marketing	22	44.90	3
Cost and Benefit Analysis/ Product Costing	1	2.04	14
Basic Accounting	3	6.12	11.5
Financial Literacy	13	26.53	5
Business Planning	24	48.98	1.5

N=49; participants were asked to choose 3 preferred trainings

Looking at the participants' narratives, they explicitly explained the many advantages of turning to yam or *ube* for product development. They foresee to process yam or *ube* into jam and powder. As one of the participants narrated: "*Napakaganda sana po Ma'am doon sa ube na maturuan kami kung paano yung proseso. Katulad ng ube halaya o kaya poweder. Yun po sanang maganda rin sa ube para madagdagan ang aming kaalaman at aming kita. Isa rin yung pangunahing produkto dito, yung pag-uube nga.*" Aside from that, corn was commonly agreed as another potent agricultural produce to translate into viable products: "*Ang number one po dito sa amin ay mais."* They can make cornik or crispy corn: "*Sa aming nagmamais, kung itong harvest ay wala talagang presyo (no value) ay maturuan ninyo kaming magproseso po ng pagko-cornik. Baka maibenta namin sa kabilang bayan at ma-deliver-an namin ng cornik na kami ang nagproseso at kami na po ang magsu-supply.*" Aside from the crispy corn, corn produce can be processed to become poultry feeds: "*Ang tanim ko po ay yellow corn, dinala ko po sa Lucena ay ginawa pong pang-feeds."*

To them, there is a need for them to be knowledgeable and skillful on food processing to compliment their agricultural production: "*Kaya po kami binabarat ng middleman, kasi nga no choice. Hindi kami marunong magproseso kaya ibibigay na namin ng murang halaga kaysa mabulok."*

In terms of business planning, they also expressed their need for stronger market linkage to ensure profit or income: "*Tapos wala rin pong permanenteng kumukuha. Pagdating po sa market, wala hong market na kumukuha talaga ng maramihan.*

In addition, they need to be trained on marketing these products afterwards: "*Kaya yun pa rin ang hiling din namin, na bigyan kami ng pag-aaral tungkol sa marketing bukod sa pagpo-proseso. Paano ang paggawa eh wala namang market. Wala din. Mas lalo kaming lugi kung mura lang ang benta. Kailangan may market talaga para sure na."* The same is true with corn: "*Pag nagtanim po kami ng mais, talagang tonelada ang ani namin. So ang number one problema naman po namin ay market. Ngayon, may market kami ay sinasamantala naman. Masyadong mababa."* This also results to unfair market bargaining: "*Meron ngang mamimili, sinasamantala naman yung presyo, binabagsak ang presyo. Kapag manggagaling po sa mamimili ang presyo, kontrolado po nila."*

Table 5 exhibits the challenges faced by the villagers related to product development specifically on food preparation and processing as an economic activity. As indicated in the table, the descriptive results revealed that more than half of the participants are experiencing lack of water supply (71.43%), absence of potable water source (61.22%), limited access to needed ingredients (59.18%), limited access to packaging and labeling

materials (55.10%), and lack of cooking utensils and other materials (53.06%). Meanwhile, only few are experiencing lack of electric supply (18.37%).

Qualitative data consistently shows that the participants are facing a great deal of problems with water supply: "*Mahirap po ang tubig. Nakakapagtanim po kami kasi may tubigan pero kung wala naman po ulan, wala din po.* This problem also extends with their attempts to develop products from their agricultural produce: "*Talagang pag-inumin o panluto, pumupunta pa kami ng bukal. Spring water talaga iyon. Malayo po, kailangan po may sasakyan. Yung mga nakakaluwag-luwag, bumibile ng purified water.* Then, those who are having no electric supply are greatly affected as it hinders their food processing: "*Yun pong ipinatayo para sa food processing ng ube, yung iba pong mga kagamitan po ata ay medyo na-delay ng deliver at kinulang doon, kulang sa supply ng kuryente. Hindi po kaya ng generator."*

Table 5. Challenges faced by the villagers related to product and enterprise development

Challenges	*f*	Percentage	Rank
Absence of potable water source	30	61.22%	2
Scarcity or lack of water supply	35	71.43%	1
Lack of electric supply	9	18.37%	6
Limited access to needed ingredients	29	59.18%	3
Lack of cooking utensils and other materials	26	53.06%	5
Limited access to packaging and labeling materials	27	55.10%	4

N=49; multiple response

Interestingly, the FGD has revealed more basic concerns related to their agricultural production. This includes problems on climate change and pests: "*Ito pong climate change po natin, napaka laking problema din. Nagtanim kami sa ganitong panahon na biglang darating ang sama ng panahon o biglang magkakaroon ng peste."* Although they were already given training on climate-resilient agri-fishiries and other government subsidies, things like these add to their discouragement "*Although may mga practices o may mga trainings, may mga ayuda na ibinibigay bilang tulong, eh malimit kami'y bagsak, di na kami motivated."* To them, it seems to be an unending cycle of struggles as they juggle between the aftermath of a typhoon and infestation: "*Kapag wala ngang bagyo, mga insekto naman ang dumadating."* This results more subsequent needs like fertilizers: "*Kailangan po namin ng abono (fertilizers) para gumanda ang aming ani"* and machineries: "*Makinarya po, traktura para gumanda ang pagtatanim*." However, they are already knowledgeable about crop insurance, but they find it ineffective as they still need to travel a few hours to have it assessed to get only a meager amount of money: "*Babiahe po kami nang malayo, mamamasahe kami, tapos pababalikbalikin kami. Isang libo lang pala ang ibibigay. Lugi pa lalo kami.*"

In instances that they have good harvests, they commonly encounter surplus or oversupply or overproduction of agricultural produce. Just like with corn: "*Minsan Sir, yung bagsakan ng mais sumosobra yung mais, wala nang mabagsakan. Halos wala namimili*" or squash: "*Kalabasa namin, walang bumibili. Kaya ang kalabasa namin ay nabubulok.*" With this, they need either training for food processing: "*Kailangan po talaga naming matuto kung anong gagawin kung hindi mabenta"* or better market linkage: "*Nagtatanim kami pero wala namang nabili.*" They also need linkage to financial institutions: "*Maganda sana Sir yung magmagpi-finance muna sa amin. Kung may nagfinance sa amin, hindi kami kanya-kanyang benta at ibenta kahit palugi.*"

In addition, they struggle in handling price elasticity: "*Napanuod namin sa TV, 100 ang kilo ng luya, kaya nagtanim kami. Noong inani na namin 10 na lamang ang kilo kaya pinabayaan na lamang namin. Akala namin kikita kami."* With the ongoing COVID-19 pandemic, the lockdown caused additional threat to their business endeavors: "*Kahit anong tanim naman po ay nabubuhay dito. Kaya lang po dahil sa COVID-19 lockdown, hindi na po kami makapagbiahe, na-struck po yung produkto dahil si sila maaring lumabas, bawal kaming tumawid sa ibang probinsya.*" Due to this, they wish to be prioritized in the vaccination: "*Kailangan po talagang namin ng vaccine. Gusto namin magpaturok. Hindi kami makapagbiahe 'pag wala kang vaccibe, hahanapan ka ng card. Hindi ka tutuloy sa pupuntahan mo. Titignan sa'yo yung vaccine card.*

Conclusion and Recommendation

The main agricultural products produced by AMIA villagers are banana, coconut, corn, swine, poultry, cassava, yam or *ube,* and rice. However, only few of these agricultural produces were utilized by the villagers for product development. Their products revolve mainly on coconut charcoal, dried fish, coconut vinegar, and rice-based Filipino *kakanin*. It is due to no or insufficient knowledge on product development and entrepreneurial skills.

Meanwhile, they have strong interest to learn food processing using yam or *ube,* other fruits, and vegetables. To make it more sustainable, they preferred to be taught in marketing, financial literacy, and business planning. Although similar trainings were already given to some, the villagers suggested to make it more organized, continuous, and structured to make sustainable outcomes. These trainings are foreseen to be effective interventions to curve the ill effects of climate change, typhoons, and frequent infestations. In addition, to address their usual problems concerning unfair market bargaining and surplus production which leave them with little to no profit, they need robust linkages for markets which will offer more equitable appraisal of their agricultural produce and financial institutions to fund their agricultural and entrepreneurial endeavors. The AMIA villagers are not also saved from the devastations of COVID-19 pandemic which results to geographical lockdowns that prevent them to transport their goods. In addition to these commonly encountered climate change repercussions, they lack dependable source of water to be used both for planting and in food processing.

Taken all together, the identified needs and challenges required additional assistance and inputs. This constituted a plan of action for establishing a sustainable community-based enterprise This was offered to Department of Agriculture (DA) and the Local Government Unit (LGU) of San Francisco, Quezon. The Department of Agriculture was requested to fund a series of training that focuses on product development and community-based enterprise. Trainings for developing yam or *ube* to marketable products was already coordinated to the LGU and the villagers. The trainings will include food processing, packaging, marketing, basic accounting, business planning among others.

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