## COMMUNITY-BASED PARTICIPATORY ACTION RESEARCH (CBPAR) ON THE ENHANCEMENT OF THE ABACA(*Musa Textiles nee*) PRODUCTION SYSTEM IN LAS NAVAS, NORTHERN SAMAR, PHILIPPINES

#### Abstract

Community-Based Participatory Action Research (CBPAR) on the Enhancement of the Abaca Production in Las Navas, Northern Samar, is a technical extension service, intervention designed to respond to the pressing problems of the abaca industry. This author tapped by the Ching Bee Trading Corporation (CBT) - a private abaca fiber export company, inspired by its sincere commitment in alleviating the low abaca production in Northern Samar viewed in a previous five year productivity status survey. Identifying key challenges, assessing existing practices, and developing innovative solutions, this study seeks to improve the livelihoods of local farmers and contribute to sustainable agricultural development. Data collection involved interviews, surveys, and observations, followed by analysis of the findings. The results revealed significant constraints related to abaca fiber quality, pests, and limited access to markets. Based on these findings, recommendations for improving abaca cultivation practices and strengthening value chains were developed. The project's success in fostering community engagement and capacity building has paved the way for further initiatives to promote sustainable agriculture in the province and region. The compelling outcome of declining fiber production for the last five years came into a condition compromising the fiber production and quality, prompted Ching Bee Trading Corporation to invest on an intervention directly in the countryside as a way of helping our abaca farmers together with the other stakeholders in finding solutions to revitalize the industry, hence this study.

This CBPAR project in order to concretize its impacts and attain its vision, goals and objectives adopted these approach : 1.) the need to expand community-based managed abaca nurseries into an individual contract abaca growing; 2.) the conduct of a study on the physical characterization of local abaca varieties in Las Navas (Collection and Germplasm establishment); 3.) Geotagging of specific areas of production source of these local varieties in Las Navas (to preserve indigenous varieties); and 4.) continue the Capability Building and Education Program to sustain farmers commitment and enthusiasm in supporting some initiated projects.

Key words:

Discipline of the study: Agriculture and Socio-Economic Concepts :Community-base; Abaca farmers participatory action research; National Government (PhilFIDA) -Academe(UEP) & Private Initiatives (CBT)

Methods and process : farmer involvement; cooperation ; resource complementation

### **INTRODUCTION**

## Rationale

The CBPAR project on enhancing abaca production in Las Navas, Northern Samar, was implemented across 13 barangays to transform farming systems and technologies, with a focus on good agricultural practices and improving fiber quality. The project addresses the critical challenge of managing abaca diseases like Abaca Bunchy Top Virus (ABTV) and Abaca Mosaic Virus (AMV) through abaca disease management and eradication activities, and the establishment of a demonstration farm-nursery. Las Navas was selected due to its prominence as one of the major abaca-producing municipality in Northern Samar, Philippines, with the largest area of abaca plantations and the highest number of farmers, making it a vital contributor to both the local and national economy.

## **Objectives**

The CBPAR project's main objective is to empower abaca farmer-entrepreneurs in problem-solving and decision-making to achieve sustainable farming, increased productivity, and higher income. Specifically:

- 1) Identify community concerns and challenges affecting abaca production.
- 2) Address key issues critical to improving the abaca industry.
- 3) Develop strategic solutions for community transformation.
- 4) Support farmers in turning their visions into reality.
- 5) Propose solutions through a collaborative, participatory approach
- 6) Promote and adapt the innovative approach of CBPAR project and GAP technologies that can enhance information and education campaign and community development
- 7) Derive lessons and recommendations for improving the abaca industry.

## **TECHNICAL DESCRIPTION**

**CBPAR** Abaca Project Components

### **Initial Phase:**

- I.) Profiling and Scoping
- II.) Strategic Planning Workshop
- III.) Capability-Building and Technology trainings (IEC)
- IV.) Abaca Disease Management Program/Eradication (ADMP 30 hectares)
- **V.**) Establishment of Abaca Demonstration Farms-Nursery (1.0 ha@ barangay)

## METHODOLOGY

#### **IMPLEMENTATION**

The project employed a community-based participatory approach (CBPAR) to enhance abaca production in Las Navas, Northern Samar, beginning with initial scoping in three (3) abacaproducing barangays later expanded to ten (10) barangays. Profiling and scoping activities gathered data on abaca farmers' experiences, challenges, and fiber industry conditions. The CBPAR intervention focused on identifying critical issues and engaging farmers through participatory techniques, emphasizing a closer community partnership in developing agricultural solutions.

To drive innovation and adoption of sustainable farming practices, the project utilized the "participatory on-farm research" model, which brings farmers together with local institutions, such as government units and the academe (University of Eastern Philippines). This collaboration empowered farmers to be key actors in research and development, facilitating their capacity to adapt and innovate with new technologies. The Multi-Disciplinary Team (MDT) played a crucial role in reviewing findings and prescribing intervention strategies that were co-designed owned by the farmers community and participating stakeholders (fiber traders).

Workshops and training sessions equipped farmers with knowledge of good agricultural practices, integrated disease management, and diversified farming. Demonstration farms were established to showcase the technologies' practical advantages, ensuring farmers' technical growth and sustainability. Gender sensitivity and environmental concerns were also incorporated into the program, ensuring holistic community engagement in improving both farm productivity and income opportunities.

#### **Strategy of implementation**

Strategic Planning workshop was initiated in order to prepare abaca farmers the right attitude of adapting and implementing a participatory action research. Series of technological capability trainings anchored on good agricultural practices in abaca production integrated with other crops and diversified farming system. Doubled technical capacities of abaca farmers that open up some investment opportunities within their agricultural farms aside from their abaca plantations, like rice, fruit trees and other high value commercial crops.

An actual showcase of technology and adaptive integration of the Abaca Disease Management program on abaca disease eradication was also implemented. Establishment of abaca demonstration farm-nursery was another strategy of showcasing the technology relative advantage and the sustainable source of abaca planting materials in the future.

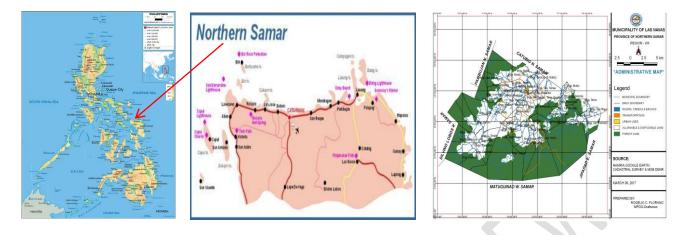


Figure 1. CBPAR project site, different Barangays of Las Navas, Northern Samar

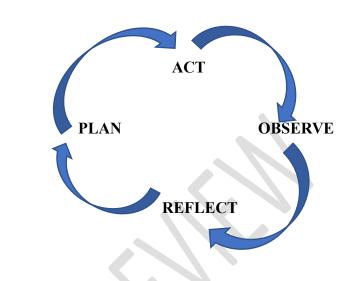
The project coverage areas, the Barangays of Geguinta, Bugtusan, Lourdes, Capotoan, Cuenco, El Empon, Lakandula, Osmeňa, Paco, Poponton, Rizal, Taylor and Victory, all of Las Navas, Northern Samar.

## **CONCEPTUAL FRAMEWORK**

**Community Based Participatory Action Research (CBPAR)** is a collaborative approach to research that involves all **stakeholders** throughout the research process. A research framework that aims to address the practical concerns of people in a **community** and fundamentally changes the roles of 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 in engagement.

ACTION	<ol> <li>Choosing a problem</li> <li>Identifying resources and solutions</li> <li>Developing a plan</li> <li>Implementing the plan</li> <li>Evaluate and if necessary return to step 1/cycle</li> </ol>





Cycle of PAR (Lewin, 1946)

Figure 2. Conceptual Framework of the CBPAR abaca project

#### **Background of the CBPAR Abaca Project**

The Community-Based Participatory Action Research (CBPAR) on abaca was relatively based and stemmed on the findings of the field survey on the productivity status of the seven (7) major abaca producing municipalities of Northern Samar in Region VIII, Philippines - the municipality of Las Navas, Northern Samar was one of the seven survey locations considered in the project conducted by University of Eastern Philippines thru the College of Agriculture, Fisheries and Natural Resources (UEP-CAFNR 2016) by the same author. The private sector serious intent/commitment and corporate responsibility of Ching Bee Trading to help our abaca farmers revitalized the abaca industry in the province of Northern Samar had launched the CBPAR, focused in Las Navas, Northern Samar, Philippines- initially piloted in the 13 barangays of this municipality.

The 2016 productivity status survey that evaluated if there were changes in the production and marketing practices during the past five years (2010-2015), identified gaps and links of the market supply and demand. Gathered farmers' feedback, issues and concerns that would encourage farmers to engage in abaca production and would also serve for Ching Bee Trading Corporation to find ways in generating or developing new innovative technology and enterprises to sustain the abaca industry. Results of the survey showed that there was indeed a decline in abaca production during the last five years.

Some of the reasons attributed to the 19.72% (2015) decline in abaca production, remain to be the same causes for the past five years, to wit: *Presence of abaca viral diseases; Slow rate of abaca rehabilitation and expansion;Lack of planting materials; Farmers interest, shifting from abaca production to other commercial crops due to the provision of incentives program (i.e. coconut enhancement-expansion program) ;Uncompensated labor (discontented) due to the distance of abaca farms; Lack of farmers capital; Poor abaca farm maintenance /Soil fertility depletion; Effects of natural calamities, typhoons; Lack of shade trees/deforestration; Fluctuating*  farm gate price; Physical incapacities of farmers old age, sickness and change in economic status (some children of farmers working abroad/ or not interested anymore on agriculture/soiled jobs of farming).

The (CBT-NSEP CBPAR, 2017) *Ching Bee Trading Corporation* wanted to center the intervention and implemented "The Community-Based Participatory Action Research on the Enhancement of the Production System in Las Navas, Northern Samar". Started on July 2017 with preliminary dialogue with the Local Government Unit Chief Executive, Sangguniang Bayan of Las Navas and the abaca farming community for the initial interaction, then Memorandum of Agreement was formalized followed by abaca farmers profiling and scoping process. The project was formally launched on October 25, 2017 envisioned for its initial phase until August 2018. Actual project component undertakings started November 2017 and succeeding field activities were done in January 2018 towards August 2018.

## **RESULTS AND DISCUSSION**

## **CBPAR ABACA PROJECT PERFORMANCE**

The CBPAR Abaca Project aims to empower abaca farmers as entrepreneurs by enhancing their ability to address farming challenges, make informed decisions, and boost productivity and income. The project focuses on capacity-building, enabling farmers to implement sustainable abaca farming and manage disease incidence with the support project of Ching Bee Trading Corporation. One of the key strategies is the Farmers' Information Needs Assessment (FINA), which identifies the key challenges and information needs of the farmers. FINA ensures that extension services are demand-driven, participatory, cost-effective, and directly responsive to the needs of the farmers, fostering their involvement and ownership in the solutions developed (Table 1).

**Objective No.1:** Determine the practical concerns and change issues of the people in the community.

CBPAR objectiveActivities undertaken to attain the objective		Results (output- outcome)
1.Determine the practical concerns and change issues of the people in the community	-Abaca farmers profiling, scoping process, focus group discussions, survey/needs/SWOT analysis	-Community resource assessed - Problems identified, - real issues/common concerns surfaced - Opportunities of intervention - priorities/preferences matching of opportunities

 Table 1.
 CBPAR project objectives and Key Results Areas

2. Determine development challenges and change issues that are critical to the improvement of the abaca industry	<ul> <li>Farmers reflection process</li> <li>Transformation process/ human behaviour devt.</li> <li>Values Formation and technological interface seminar</li> </ul>	-Positive attitude developed - Cohesive and productive individual -farmers abled body to cope up with everyday challenges to cultivate abaca farms not only as a family sustenance but as a family enterprise that can be sustained by their children
3. Identify problems strategic action or solutions that will lead to the community transformation and social change	-Strategic planning workshop, dream planning and visioning -Planning/ problemsolving/ group visioning -Developing group framework -Work /Commitment Plan -Team Building	<ul> <li>-Abaca farmers dream plan and VGO statements</li> <li>-Guiding principles</li> <li>-Policy guidelines/Roles and rules established</li> <li>-Farmers receptive to community- based actionto improve fiber industry</li> </ul>
4. Recommend possible solutions to the problems identified as product of collaborative and participatory approach (co- owned by the community/valued).	<ul> <li>-Action planning / tasking</li> <li>-Workshop on abaca farmers Action Plan/ Framework</li> <li>-Capability build-up techonology trainings</li> <li>-Actual abaca disease eradication</li> <li>-Actual establishment of abaca demonstration farm- nursery</li> </ul>	<ul> <li>-3 year action plan developed</li> <li>-Personal Confidence build- up Empowered/sustainablecommunity</li> <li>-Co-owns the solutions/valued thru participation /expected increased farm productivity</li> <li>-30 hectares treated using ADMP disease eradication protocol (PHILFIDA)</li> <li>-Initial 3.0 hectares demonstation farm-nursery established</li> </ul>

## **Project component I: CBPAR Profiling and Scoping**

Initial dialogue with the Las Navas Chief Executive and Sangguniang Bayan were undertaken for project deliberation of CBPAR intention. Presented the program of work and entered into Memorandum of Agreement, ask permission to proceed and solicit resource logistic support from the Local Government Unit. Then field survey and scoping were done to gather basic information to visualize abaca situation in their respective commuity, looking at the socioeconomic factors that eventually serve as guide and direction of the intended intervention of CBPAR (Table 2 and Table 3).

SURVEY QUESTIONS	RANDOM FACTS SCOPED
	(Respondent Responses)
	( Municipal Agriculture Office: July 24, 2017)
How was the current abaca production compared five years ago (2010-2016)?	Abaca production decreased 10% remaining, due to severe ABTV, AMV and other abaca disease infestation
Do abaca farmers still interested to increase their abaca production? If yes, what prevented them to do so?	Yes, but they lack the technical know-how in the control of abaca diseases and lack of supply of disease-free abaca planting materials
What is the area planted to abaca in Las Navas	In the year 2010 area planted was 2,117.5 Has.; at present 2017 its approximately 200 hectares
Is it fully planted with abaca?What is the number of hills/ha.?	<i>Estimated at 2,500/Ha. if fully planted and only 1,000 if intercropped with other crops like coconut and fruit trees</i>
How many percent (%) is now the level of disease incidence in your municipality?	60% ABTV, 20% AMV, 10% other abaca diseases with a total of 90% D.I.
What are the competing crops that prevents them to increase abaca production?Why?	Coconut and weeds
What are the problems of abaca farmers?	Severe infestation of abaca pests and diseases, no available disease-free abaca planting materials
Are there some efforts from the National Government, LGU's of Las Navas, private sector, NGO's that have done to address this problems?	PHILFIDA, LGU-MAO office started this June 2017 the abaca survey and validation in preparation for the abaca disease eradication in those infected areas
Your overall assessment as to the fiber industry situation in your municipality	"Downfall" of the abaca industry if not given the proper and immediate solution of the problems faced by our abaca farmers

## Table 2. Information Feedback from the Municipal Agriculture Office

Source: LGU-MAO Noel Danque, 2017

# **Objective No. 2** : Determine development challenges and change issues that are critical to the improvement of the abaca industry

SURVEY QUESTIONS	RANDOM FACTS SCOPED
	General comments of CBPAR abaca farmers initially from the three original target areas of Brgy Geguinta, Bugtusan, and Lourdes, all in Las Navas, N. Samar
What are the issues and development opportunities in your community ?	Abaca diseases and inavailability of disese-free abaca planting materials
Livelihood activities other than abaca farming	Aside fro abaca farming they venture into rice farming, copra production, planting rootcrops and backyard garden of vegetables
	-Some barangay residents/farmers have sari-sari store
Abaca production system (farm practice)	They only visit and clean their abaca plantation only during harvest time,
	Reasons why abaca productivity is due to lack of technical knowledge about the scientific and new methods and practices in abaca production
	Some farmers still clinging to their traditional practice of abaca farming and seldom supervise and manage their farms
	Some farmers had the opportunity in attending some trainings and tried their learned knowledge to develop their farms and improve their farming system
Marketing system and practices	It is only this year (2017) that higher abaca price @ P75.00/kg was availed by abaca farmers due to high demand compared five years ago
	From the farmers farm, abaca fibers were brought to the municipal abaca trader (JMTan) through motorcycle (habal-habal) which they incurred additional transport cost of P1.00 per kg of fiber
	Some abaca farmers little by little were aware that the fiber quality dictates higher price
Institutional and Governance arrangements/integration	Opportunity and receipient of some barangay infrastracture projects from DSWD, KALAHI- CIDSS, RED CROSS like dayorcare centers, school buildings, pathways, hand-tractors
	Only 2 farmers in their barangay owns a hand tractor thus, having sufficient farm produce from rice

 Table 3.
 Information Feedback from Abaca Farmers

	Their barangay had more focus on rice production thus, they had 2 mini rice mill in their locality
Gender sensitivity, youth, Person's With Disability(PWD's) link and involvement	Abaca farmers' housewives and children (youth)sometimes involved in looking for extra income by assisting and helping their husbands in the farm to fast track activities and sustain their daily needs
other relevant issues, concerns, problems, suggested solutions/instituted intervention/partnership with other fiber industry key players / stakeholders	Major problem was on abaca pests and diseases- decreased abaca production and income/high poverty incidence Farmers demand for technical assistance from government offices to enhance their abaca production Abaca farmers were very much willing to cooperate and interested to partner with other stakeholders particularly in the organization and formation of abaca farmers association and cooperatives

Source: From the field enumerators conducted survey/scoping, consolidated results, 2017

#### CBPAR Abaca Project deliberation at the LGU- Sangguniang Bayan session

The CBPAR abaca project proposal was presented at the Local Government Unit-Sangguniang Bayan of Las Navas, Northern Samar to ask permission and enable the technical team to proceed and pursue its objectives to implement the project. Entered into a Memorandum of Agreement (MOA) among LGU Las Navas- Philippine Fiber Industry Development Authority (PhilFIFDA) and University of Eastern Philippines and Northern Samar Environmental Protectors Inc. The Community-Based Participatory Action Research on the Enhancement of the abaca production system project in Las deliberated Sept. 9, 2017 in a Sangguniang Bayan Legislative session.

## Project Component 1: Strategic Planning Workshop

CBPAR Strategic Planning Workshop, was conducted preparing abaca farmers to embrace a positive outlook in life and change for a better person inculcating to them positive values, reflections, readying the mind set of abaca farmers who will undergo the process of communitybased action research in the enhancement of the abaca production system in Las Navas. In the context in the change of attitude, skills and knowledge (ASK), such that the behavioural factor preparations was infused primarily to the participants in order for abaca farmers to have a broader understanding in undergoing and accepting technological intervention in strengthening their skills towards abaca farming. University of Eastern Philippines-College Faculty, presented and lectured different topics to abaca farmers. Active participation on training-workshops designed to extract information from their own experiences, ideas and creativity for better internalization of the issues/concerns with their hope in solving the problems of the abaca industry where abaca farmers were the most affected and vulnerable. A memorable experience among the abaca farmers as well as the team to encounter and interact with their personal sharing, they realized that the problems can be solved through a transformation process among and within themselves, thru partnership and linkage with various stakeholders, the government and private sector .

### **Outcome 1a:** Strategic Planning Workshop and Values Formation training

Abaca farmers and community leaders perceived to be empowered in handling development projects catered by the national government, non-government organizations, the academe and the private sector and the prospected partners in the development of the 13 abaca producing barangays of Las Navas, Northern Samar where they underwent the process.

## Outcome No.1b: Technical Capability Building- Agricultural Technology Training

Information and Education Campaign (IEC) emphasized good agricultural practices in abaca production including topics of other high value commercial crops like coconut, cacao and rice among others, cum environmental awareness, Gender Advocacy & Development and Cooperative principles/practices were presented to CBPAR abaca farmers who were clustered into two groups (*Cluster I with 4 downstream brgys and Cluster II with 9 upstream brgys*) in order to effectively reach out and systematized the conduct of series of the agricultural technology capability. Recommended the adotpion of the diversified cropping system within their abaca plantation in order to maximize land utilization and gain additional income. National and Local Government Units hopefully and expected that it shall play an important role in complementing the CBPAR undertakings in terms of providing abaca farmers with some vegetable seeds, livestock dispersal program and other alternative livelihood projects while they are on the scene of recuperating from the devastation of their abaca farms brought about by abaca bunchy top virus disease.

Outlined topics presented and discussed focused on the good agricultural practices in abaca production, opportunities of livelihood enterprise by the time their abaca farms gain momentum and regain the improvements in their respective areas. Training modules and reading materials were given to farmer participants lectures about :1.)Abaca Industry situationer ; 2.) Rice-based farming system (upland and lowland preparations); 3.) Integrated Cacao production, culture and propagation techniques as abaca intercrop; 4.) Diversified farming systems; 5.) Biological control and organic agriculture approach in the control of insects, pests and plant diseases; 6.)Good agricultural practices in abaca production and processing (post-harvest practices to ensure good fiber quality and abaca disease management –disease eradication; 7.) Environmental awareness in the conservation and protection of natural resources, solid waste management; 8.)Mainstreaming Gender Sensitivity (GAD –gender advocacy & development partner in countryside development); 9.)Basic principles in cooperative formation

## **Objective No. 3** encompassing other remaining objectives: *Identify problems and strategic action or solutions that will lead to the community transformation and social change*

#### **Project Component II : Abaca Disease Management Program**

The high level of disease incidence(70-100%D.I.) prompted PHILFIDA to respond and target about 800 hectares disease infected areas in selected barangays of Las Navas hit by the dreaded abaca bunchy top virus (ABTV) which almost wiped out the entire abaca producing barangays of Las Navas. Implemented the abaca disease management program (ADMP) which prioritized eradication activities in those areas which still have some standing abaca plants, and instituted immediate eradication measures to reduce the level of incidence.

PHILFIDA-ADMP was able to treat about 890 hectares accomplished in 2017 covering ten barangays. An on-going abaca disease management program covering other barangays in Las Navas targeting additional about 300 hectares for disease eradication. Abaca farmers were taught on the dynamics of the disease infestation and undertake action which will later on abaca farmers may adopt and manage the disease control in their own farms, sustaining preventive measures thru regular cleaning, using disease-free planting materials and following the good agricultural practices in abaca production, so that later on they could start anew and rehabilitate their abaca farms.

# Outcome 2: The Ching Bee Trading (CBT) /NSEP CBPAR-ADMP on Abaca Disease Eradication

Parallel to PHILFIDA-ADMP undertakings, the Ching Bee Trading Corporation took part by accomplishing another 30 hectares abaca disease eradication activities which was concentrated at Barangay Lourdes, Las Navas, Northern Samar. CBT is sincere in its commitment to help abaca farmers in their fight aginst these abaca diseases. CBT thru its partner the Northern Samar Environmental Protectors' (NSEPInc) adapted the PHIFIDA-ADMP protocol in disease eradication. Abaca farmer cooperators and assisting farm workers were given by Ching Bee Trading Corporation a sort of financial incentives, procured the necessary protective equipment/gears, bamboo sticks and other materials needed in the eradication procedure. PHILFIDA and LGU Las Navas provided the green labelled chemicals (*insecticides and herbicides*) and spraying equipments used in the eradication activities.

It was estimated that the level of disease incidence was brought down below by 10% D.I. after the eradication procedures and henceforth abaca farmers instructed to revisit their abaca farms and adapt the abaca disease management practice in their farms. At this manageable level of disease incidence farmers may not need chemicals, but manual roguing is recommended (*diseased infected plants rogued out or bulled-out, chopped and put in a compost pit*) whenever abaca disease infection (ABTV) is observed, to prevent recurrence of the disease, the practice of preventive measures like regular farm cleaning and other good agricultural practices must be sustained at the farmers' level.

#### INNOVATION

#### Project Component III. Establishment of Abaca Demonstration Farm

#### Outcome No. 3: Abaca demonstration farm-nursery established

The Community-Based participatory action research on the enhancement of the abaca production system concept, the establishment of the abaca pilot demonstration farm that will serves as a common abaca nursery. A community-approach where abaca farmers in the respective project coverage areas are obliged to help take care, maintain the demonstration farm, the regular cleaning and proper cultural management, good agricultural practices must be sustained in order to achieved its primary objective of making that site to be the source of abaca planting materials in the future.

Ching Bee Trading Corporation (CBT) corporate responsibity is visible on this endeavor of helping our abaca farmers, piloted Las Navas, Northern Samar as a take off point that somehow may serve as benchmark for possible replication in other abaca producing barangays of Las Navas not covered in this project and even other municipalities of Northern Samar or in Region VIII. This will also serve as a wake up challenge to other private industry participants to follow the countryside investment directed towards a community-based development partnership called a private-public-people's participative initiative that will result an inclusive prosperity that would be felt in the farmers level and robust business outcome for fiber industry key players Grading Baling Establishments (GBE's), fiber processors both local and international end users.

## CONCLUSION

#### Was the CBPAR abaca project successful ?

The CBPAR abaca project was on its transition to recovery of the abaca areas. The trainingworkshop included strategic planning, leadership and values-enhancement, diversified farming systems, organic agriculture and biological control of insect pests and diseases, environmental awareness, abaca disease eradication, along with the mainstreaming gender advocacy and development. All these preparatory learnings were directed to the abaca farmer-cooperators renewed recovery strategy put into action.

## What was/were the most important change/s the CBPAR abaca project made in the lives of the abaca farmers/ other people/ the community as a whole ? perceptions:

a.) Communities realization on the importance of crop diversification farming system. The practice of abaca monocropping considered to be disadvantageous especially when calamities struck (abaca viral disease). Integration of crop-livestock farming system shall serve as fallback position among abaca farmers during hard times; b.) Community-spirit of cooperation/participation to overcome trials like the ABTV disease infestation resulting to economic displacement of abaca-dependent farmers; c.) Realization on the need for Organizational Development (OD) through formation of abaca farmers association or cooperatives. Once CBPAR barangay abaca farmer participants organized, it could be envisioned to federate and formed into a cooperative would be a commendable development; d.) The concerted effort throught synergy mechanism between and

among different stakeholders would became functional in involving government instrumentalities, CBT, NSEP,UEP, LGU and PhilFIDA, Barangay officials and above all abaca farmers in the rehabilitation of the abaca industry, the product of an enhanced abaca production system.

## **RECOMMENDATION/S**

- 1. To sustain establishment of abaca demonstration farm-nursery in the other 10 upstream barangays
- 2. A composite third party monitoring and evaluation team shall be formed. The team shall look into the continuity and sustainability of the project.
- 3. There is need to assess and evaluate the impact of the CBPAR after three years
- 4. The need to expand community-based managed abaca nurseries, to individual contract growing abaca growing abaca farmers
- 5. To conduct the study on the physical characterization of local abaca varieties in Las Navas (Collection and Germplasm establishment)
- 6. To conduct the study of Geotagging of areas in the production of local varieties in Las Navas (to preserve indigenous varieties)
- 7. For PhilFIDA to strengthen the technical services delivery system, expand rehabilitation program, disease-free abaca planting materials distribution
- 8. Assigning permanently of field technicians and limit the service areas of coverage to 2 municipalities for each field men, in order to effectively managed and efficiently deliver government intervention and programs.
- 9. For other private sector (fiber businessman) to venture into partnership with abaca farmers in terms of subsidized abaca farming (production contract system) for the assurance of fiber supply and good fiber quality
- 10. Strengthen linkage and partnership with the Academe and other stakeholders

- 1. ) Janice C. Burns, M.A.; Deanna Y. Cooke, Ph.D.; Christine Schweidler, M.P.H., A Short Guide to Community Based Participatory Action Research ACOMMUNITY RESEARCH LAB TOOLBOX, DECEMBER 2011, (*www.advancementprojectca.org; www.healthycity.org*
- 2.) Ogoc, L.A., Sanico, J.F. 2017. Field survey on the productivity status of the 7 abaca producing municipalities in Northern Samar. Commissioned field survey by Ching Bee Trading Corporation, Quezon City to the University of Eastern Philippines-College of Agriculture, Fisheries and Natural Resources (UEP-CAFNR). *Reserve for publication*
- 3.) Celestino, E.R., Sarmiento, G.O., Bencio, J.T. Value Chain Analysis of Abaca (Musa textiles) Fiber in Northern Samar, Philippines. IJISET - International Journal of Innovative Science, Engineering & Technology, Vol. 3 Issue 8, August 2016 ISSN (Online) 2348 – 7968 | Impact Factor (2015) - 4.332 www.ijiset.com
- Fajardo, F. M., & Villareal, R. L. (2019). Sustainable Practices in Abaca Farming: A Case Study of Northern Samar Farmers. Journal of Agricultural Research and Development, 18(3), 105-118.
- Bullecer, M. G., & Dizon, J. A. (2020). Strengthening Local Capacities through Participatory Approaches in Abaca Farming. Philippine Journal of Community-Based Research, 12(2), 89-102.
- 6.) Valmores, J. C., & Gonzales, E. F. (2018). Enhancing Farmer Knowledge through Community-Based Training: A Focus on the Abaca Industry. Asian Journal of Agricultural Extension, 23(4), 301-315.
- 7.) Daquio, C. R. (2021). The Role of Farmer Organizations in Improving Abaca Production: A Northern Samar Case Study. Journal of Rural Studies, 27(1), 154-168.
- 8.) Philippine Fiber Industry Development Authority (2020). Annual Report on the State of Abaca Production in the Philippines: Challenges and Innovations. Manila: PHILFIDA.