



BASELINE STUDY

Typhoon Haiyan Reconstruction Assistance
in the Philippines

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List of Acronyms

ADF	Antique Development Foundation
BDS	Business Development Services
Biz FTC	Business Fair Trade Consulting
CBDA	Community-Based Development Agent
DA	Department of Agriculture
FGD	Focus Group Discussion
FMPC	Fatima Multipurpose Cooperative in Leyte
GAD	Gender and Development
GAC	Global Affairs Canada
KII	Key Informant Interview
LGU	Local Government Unit
MAO	Municipal Agriculturist's Office
MSMEs	Micro, Small and Medium Enterprises
NGO	Non-government Organization
PSA	Philippine Statistics Authority
RIC	Rural Improvement Club
SALT	Sloping Agricultural Land Technology
VC	Value Chain

Glossary of Local Terms

Dagyaw, hil-o,	Type of self-help initiatives in Antique province
Tawili	Self-help initiative in Iloilo
Bayanihan	Self-help initiative in Luzon provinces
Pintakasi/ayunay	Self-help initiative in Eastern Visayas
Lanot	Abaca fiber
Saha	Abaca sucker
Paka, patdan	Abaca planting material
Bisaya	Native variety of abaca
Paghawan	Clearing of land
Guso	Seaweeds variety
Tamasok	Worm
Habal habal	Single motorcycle
Sacada	Farmers migrating to work in sugarcane plantations
Pagkigi	Harvesting
Pagtuksi	Stripping
Pagbandol	Bundling
Manugkigi	Harvester
Sadol	Hoe

Haiyan Recovery Project Indicator Summary Sheet

Log frame	Indicator	Targets	Baseline data			Remarks
			M	F	Overall	
Ultimate outcome	1000 Improved economic well-being for women and men affected by typhoon Haiyan					
	% and # of men and women living above the poverty threshold	20% and 2,160 total men and 20% and 2,160 total women	0	0	0	The 2014 overall monthly poverty threshold is P8,022. Survey showed that only 1 out of 381 (0.26%) respondents are living above the poverty threshold.
	Level of socio-economic cohesion ¹ among men and women members along the value chain	Progress reaches level 3 in the progress marker ²	TBD	TBD	TBD	Will be measured by the Progress Marker
Intermediate outcome 1100	1100 Increased participation of targeted women and men affected by typhoon Haiyan in sustainable and resilient economic activities					
	% of women and % of men equally and meaningfully participating ³ in sustainable economic activities that incorporate appropriate risk reduction measures	50% of total men and 50% of total women equally and meaningfully participating by end of year 3 5,400 men and 5,400 women	39%	46%	43%	Figures are based on who performs the 11 economic activities participated in by men and women listed in the baseline survey (see section 5.1). Meaningful participation will be qualified in FGDs and Progress Marker
	# and % of women and # and % of men who have meaningfully participated in formal and informal decision making spaces ⁴	50% of total women and 50% of total men meaningfully participating in formal and informal decision-making spaces by end of year 3 5,400 men and 5,400 women	52%	34%	43%	Figures are based on who decides on 19 farm production and enterprise activities listed in the baseline survey (see section 5.1). Meaningful participation will be qualified in FGDs and Progress Marker.

¹ Social cohesion is defined as a “general condition of stable co-existence within communities, when community members accept socio-economic differences, have equitable access to livelihoods and other community resources, and feel safe and secure in their homes”. Social cohesion and livelihoods are very closely linked as social tension is most likely to arise if livelihoods become scarce.

² Demonstrated behaviours and attitudes under level 3 of the progress marker are the following: 1) Organize value chain activities among men and women members along the value chains; 2) Ensure participation and inclusion; and 3) Build strong relationships.

³ Meaningful participation involves environments where men and women actively contribute to decision, where their ideas are heard and considered, and where they can take part in leadership and decision making. Men and women are elected or chosen to manage the activities of the group.

⁴ Men and women have the space and standing to be able to participate meaningfully in public decision making. These spaces may include LGU committees/councils, government administration and political offices, village savings and loan groups in addition to other public groups or forums.

Intermediate outcome 1200	1200 Improved access to financial and business development services for targeted micro, small and medium enterprises affected by typhoon Haiyan, particularly those owned/operated by women					
	# of men-owned/operated and # of women-owned/operated enterprises accessed similar quality business development services and formal finance services	2,700 men and 2,700 women accessed BDS and financial services (25% of total number of women and 25% of total men)	0	0	0	Figures should be zero because there is no project intervention yet. Based on existing business development and financial services, the survey showed that 57% of females and 45% of males have access, but products and services are yet to be gender responsive and risk-informed; thus baseline figures are zero.
	# of financial and development service provider able to demonstrate gender-responsiveness to target women and men clients	20 FS and BDS providers are able to demonstrate gender-responsiveness to target women and men clients	0	0	0	The 24 BDS & FS providers in six municipalities that were reported in year 1 have been profiled, but have yet to be assessed in year 2 on their gender responsiveness to women and men clients; thus zero baseline figures.
	# of local government units are able to demonstrate gender-responsiveness to target women and men clients	10 LGUs are able to demonstrate gender-responsiveness to target women and men clients	0	0	0	The 10 focus LGUs have yet to be assessed in year 2 on their gender responsiveness to women and men clients; thus zero baseline figures.
	# of men and # of women satisfied with BDS and formal financial services that they have accessed	2,700 men and 2,700 women rated satisfied with the BD and FP services (25% of total number of women and 25% total men)	0	0	0	Survey showed that 79% of females and 85% of males are satisfied with existing BD and financial services; however, these products and services are yet to be enhanced as gender responsive and risk informed; thus, the baseline figures are zero.
Immediate outcome 1110	1110 Increased and more equal access of W/M to knowledge, skills and services needed to engage in gender-responsive⁵, sustainable economic activities					
	% and # of men and women with sustained access to gender-responsive BDS and financial services that incorporate	80% (7,200) of total men and 80% (7,200) of total women	0	0	0	Based on existing BD and financial services, 45% males and 57% females or 51% total have access; however, baseline figures are zero because the products and services are yet to become gender

⁵ Gender-responsive objectives are programme and project objectives that are non-discriminatory, equally benefit women and men and aim at correcting gender imbalances

	appropriate risk reduction measures					responsive and risk informed.
	% and # of men and the % and # of women with skills to operate sustainable, gender-responsive and risk-informed economic activities	80% (7,200) of total men and 80% (7,200) of total women	0	0	0	Will be measured by the C-BED post-test evaluation and FGD.
	% women who have increased confidence in managing their enterprises	50% of total women have increased confidence in managing their enterprises 5,400 women	0	0	0	Will be measured by the C-BED post-test evaluation and FGD.
Immediate outcome 1120	1120 Improved capacity of W/M entrepreneurs for increased involvement in the governance and inter-firm relationships of value chains					
	% and # of men and % and # of women able to map key relationships within the value chain	80% (7,200) of total men and 80% (7,200) of total women	5%	5%	5%	Survey showed that 5% of respondents were able to develop 3 or more enterprise networks or linkages.
	% and # of men and % and # of women with ability to negotiate with stakeholders in the value chain	80% (7,200) of total men and 80% (7,200) of total women	44%	52%	48%	Negotiation activities include procurement of goods, negotiating with suppliers, negotiating with buyers, and marketing. Figures only refer to who does the negotiating, not the ability to negotiate. Ability to negotiate will be determined in FGDs.
Immediate outcome 1210	1210 Providers of BDS and FS providers have improved capacity in delivering gender responsive, risk informed and easily accessible products and services to male and female owned enterprises					
	# of gender responsive and risk-informed products and services designed by BDS and FSPs	20 gender-responsive and risk-informed products	0	0	0	Products and services of profiled BDS and FS providers are yet to be designed as gender responsive and risk-informed; thus zero baseline figures.
	# of BDS and FSPs that provide gender-responsive and risk-informed products and services equally to women and men	20 BDS and FSPs provide gender-responsive and risk-informed product and services equally to women and men (at least 10 per province)	0	0	0	Products and services of profiled BDS and FS providers are not yet gender responsive and risk-informed; thus zero baseline figures.
Immediate outcome 1220	1220 Local Government structures have increased capacity to effectively and transparently support local enterprises in particular women's enterprises					

	# of women from the VC actors represented in the Municipal Development Council	4 women (1 from each value chain)	0	1	1	One female member of the herbs CEF is a member of the barangay development council
	# of LGUs enforce gender-responsive and risk informed programmes	10 MLGU programmes	0	0	0	The 10 focus LGUs have yet to be assessed in year 2 on their gender responsiveness to women and men clients; thus zero baseline figures.
	% of development fund allocated for the economic sector	At least 5% of the development fund is allocated for the economic sector	0	0	0	In Northern Iloilo, 20% of development fund is allocated for the economic sector. Data from Antique and Leyte is not yet obtained. Figures to be provided with the interim report in Year 2.
	# of female and # of male CBDAs formally recognized in the local business environment	30 women and 30 men formally recognized	0	0	0	Prior to this project, there are no CBDAs operating in the project areas

Executive Summary

This Report highlights the combined results of the qualitative and quantitative baseline studies for the project, “Typhoon Haiyan Reconstruction Assistance in the Philippines,” covering selected CARE recipient areas as follows: Jaro, Calubian and Carigara in Leyte for the cassava sector; Culasi and Lauaan in Antique for abaca; and Lemery⁶ and San Dionisio in Iloilo for vegetables, herbs and seaweeds farming. The study identified the economic activities of men and women along the value chain, and consequently determined behaviors indicating social cohesiveness and meaningful participation. It also identified the knowledge, skills, and other practices of men and women in the operation of the small business enterprise, and the possible gender differences in terms of access to resources and business development services. As a whole, the information gathered led to recommended interventions towards making livelihoods more resilient. The report utilized both qualitative and quantitative participatory methodologies. Qualitative methods included focus group discussions and key informant interviews. Also, the survey results were used to validate and inform the appropriateness of intended project outcomes and outputs.

Three barangays per town were selected, from where men and women farmers were chosen to participate in Focus Group Discussions and surveys. Key Informant Interviews were likewise conducted to include the Municipal Agriculturalist’s Office and a lead value chain (VC) meso player.

Results showed that: (1) the value chains of cassava, herbs, seaweeds, vegetables and abaca in the study areas indicate that there is a gendered division of labor in the farms in both economic roles and decision making spaces; (2) the degree of social cohesiveness among male and female farmers is high with practices such as *dagyaw* (*Karay-a* term for collective volunteerism offering free labour), *hil-o* (*Karay-a* term for mutual aid or labour exchange), *ayunay* (*Bisaya* term for collective volunteerism, and *tawili* (*Ilonggo* term for collective volunteerism; (3) men have more access to resources and services; (4) a gendered division of labor is being perpetuated by the patriarchal farming communities; and (5) farming is carried out in a small-scale, traditional and non-entrepreneurial manner.

Unclear and undefined markets are the primary issue faced by farmers of both sexes. They may have produce ready to sell after harvesting, but the product cannot be sold and does not generate incomes for the family at a time when it is needed. Farming technologies have been introduced (e.g. stripping machines) but these have not been used as farmers have been slow to take up new technologies. Farm inputs are relatively affordable, yet many farmers do not own farm tools/implements as they choose to spend their income on food and can easily borrow tools/implements from relatives or neighbors. Finally, farmers are not confident about the use of mechanized tools/equipment, fertilizers or insecticides as training is lacking and the cost can be high.

Male and female farmers do not consider financing as a problem right now. This may change, however, when farmland expansion finally takes place; when processing cassava, abaca and herbs begins; and/or when marketing will require additional support for packaging and labelling and the like.

⁶ Barangays in Lemery was included in the survey focusing on vegetable value chain.

There are numerous gender issues that were identified that need to be addressed in empowering the women in the value chains, which also typically have weak governance. For example, women are often marginalised into labor-intensive and low-paying value chains activities which further reduces their opportunity to meaningful participation. Technical and business development services will have to be dove-tailed to the different circumstances of the men and women farmers if women’s aspirations for more paid work, safer work environments, stronger relationships with other VC players, wider decision making spaces, and greater influence in VC governance and in improving the enabling environment are to occur.

VC macro players, such as the LGU, must actively step into the value chains in order to make them resilient and to ensure that farms are managed as business enterprises. The LGU has to draft its abaca/herbs/cassava/seaweed development plan together with a corresponding budget and required manpower (technical) support within the project life. This will contribute to the sustainability of the sectors in the years after the CARE project exits.

1.0 Introduction

This narrative report describes the findings of the baseline study for the project, “Typhoon Haiyan Reconstruction Assistance in the Philippines” funded by Global Affairs Canada (GAC).

The study locales are selected Haiyan-affected communities in the provinces of Leyte, Northern Iloilo, and Antique. Specifically, these are the CARE-covered municipalities of Jaro, Carigara and Calubian in Leyte province; Culasi and Lauaan of Antique province; and Lemery and San Dionisio in Iloilo province. The target participants include men and women who are engaged in cassava, abaca, seaweeds, vegetables and herbs farming/production and enterprises.

Qualitative data gathering took place throughout the month of February, 2016, and the quantitative survey was conducted in April-May, 2016, to supplement this.

1.1 Objectives

Data gathering aimed to collect primary data that will provide baseline information for selected Haiyan-affected CARE project areas, particularly for the targeted men and women entrepreneurs in the abaca, herbs, vegetables, seaweeds and cassava value chains. Specifically, the objectives are:

1. To identify the economic activities of women and men within the micro enterprise value chains and consequently determine behaviors of social cohesiveness and meaningful participation and decision making spaces;
2. To identify the knowledge, skills, negotiation strategies, and other practices/measures used by women and men in the operation of the enterprise, particularly towards reducing risks brought by disasters and climate-related events;
3. To analyze gender differences in the access to resources such as business development and financial services; and

4. To inform CARE Philippines of interventions that will enhance gender equality, strengthen social cohesion, and make livelihoods more resilient.

1.2 Methodology

The study employed participatory and mixed methodologies. Qualitative data gathering techniques included focus group discussions (FGDs) and key informant interviews (KIIs), in addition to secondary data gathering. A quantitative survey was also conducted. Data collection and analysis used gender protocols and processes in order to generate key gendered data around the micro-enterprises and its women and men operators.

Secondary data gathering

Existing data and records, particularly of the value chains and profiles of entrepreneurs in abaca, herbs/vegetables, seaweeds and cassava production were gathered from the LGUs and the CARE local partners, namely, the Antique Development Foundation (ADF) in Antique, the Business Fair Trade Consulting (BizFTC) in Iloilo, and the Fatima Multipurpose Cooperative in Leyte.

The community enterprise profiles, which indicated location and number of persons (males and females) who are involved in each of the commodity enterprise, aided in the selection of FGD and KII participants. It likewise provided a quick overview of the small-scale enterprises along the value chains that operate in the selected barangays. These areas are summarized in Table 1 below.

Table 1. The Research Locale

Commodity	Province/Municipality/Barangays					
	Leyte			Antique		Iloilo
	Calubian	Carigara	Jaro	Culasi	Lauaan	San Dionisio
Cassava	Igang	Tigbao	Hiagsam			
	Cantonghao	Candigahub	Mag-aso			
	Tagharigue	Camansi	Malobago			
Abaca				Flores	San Ramon	
				Alojipan	Guiamon	
				Magsaysay	Maybunga	
Herbs						Pase
						Moto
						Bondulan
Seaweeds						Borongon
						Nipa
						Odiongan
						Sua
						Tiabas
						Bagacay
						Cubay
						Naborot
						Agdaliran
						Poblacion
					Pase	

Focus Group Discussion (FGDs)

Two FGDs were conducted in each municipality, one each for women and men micro-entrepreneurs/farmers in the respective value chain. In this manner, it was possible to discern the gender differences between male and female in value chains and thus enabled the researcher to determine possible gender-responsive interventions.

On the average, there were 12 participants per FGD from across the three identified barangays. There was also one FGD for seaweeds composed of representatives from 11 barangays. They were selected to represent different age groups and roles in the value chain. These roles are: the input suppliers, producers, processors, and traders. The assistance of the CARE local partners was significant in making the field work successful.

An FGD Guide was prepared for the purpose. The questions revolved around the following:

- Definition and indicators of social cohesion and meaningful participation of the women and men in the community and in the value chain;
- Economic roles, work spaces and decision making spheres of women and men in the industry;
- Access to financial and business development services, and the satisfaction derived by the value chain players;
- Skills, knowledge and measures used in risk-reduction and negotiations, in particular, and in the business operations, in general; and
- Current needs of MSMEs specifically towards building sustainable and resilient economic activities and livelihoods.

The differential situation of the women and men in terms of needs, impacts, economic roles, access to resources and benefits as well as the gender differences in skills, knowledge and decision making spaces are generated from the FGDs.

Key Informant Interviews (KII)

The KII was conducted in order to substantiate matters that arise in the FGDs that need further probing for reasons such as its specificity to the office concerned. A KII instrument was prepared and questions were designed corresponding to the office/affiliation of the key informant. The instrument covered the following areas: roles, support to local enterprises, plans, policies and programs for the industry, technologies (if any), and the impact of projects designed for the women and men along the value chains for cassava, abaca, and herbs. Suggestions on how to improve productivity of the MSMEs as well as to narrow gender gaps were also identified.

The informants included the following: LGU-MAO, the President (or an officer) of the farmers' association/women's group, NGOs/co-ops/business groups assisting the industry, micro-insurance and business development service providers, and individual integrators⁷

The number of KIIs interviewed per municipality was heavily dependent on the data needs and the availability of the key informants during the short period of field work allotted for this study.

Survey

The survey was conducted to provide quantitative baseline data – by sex and by commodity – of the project's targets by results indicators. The questionnaire specifically included data sets on social cohesion and men's and women's equal and meaningful participation in enterprise activities to determine gendered division of labour and decision-making roles; access to business development and financial services; and enterprise involvement in the value chain. The survey questionnaire is shown in Annex 1.

The target sample size was 378 with a confidence level of 95% and margin of error of 5%. Sample size per province was determined by the percentage out of the total number of beneficiaries. The target per province is show in Table 2 below.

Table 2. The Survey Sampling Frame

Province	Target # of beneficiaries	% of total	Sampling size
Antique	32,895	35%	132
Iloilo	18,920	20%	76
Leyte	41,425	44%	170
TOTAL	93,240	100%	378

The actual sample size was 381 from randomly selected barangays across the ten focus municipalities. The total number of male and female respondents, randomly selected from currently assisted beneficiaries in each sample barangay, can be seen in Table 3 below. The actual number of male respondents was low compared to women because of replacements when male respondents were not available at the time of survey.

Table 3. Sex Disaggregated Survey Sampling Distribution by Barangay

Commodity	Province	Municipality	Barangay	# of Respondents		Total
				Female	Male	
Abaca	Antique	Culasi	Flores	22	20	42
			Osorio	29	8	37
		Laua-an	Latason	18	3	21

⁷ Individual integrators are private individuals who buy products from the community and consolidate and sell to big traders.

			Tigunhaw	29	4	33
Sub-total				98	35	133
Cassava	Leyte	Barugo	Amahit	9	17	26
		Calubian	Casiongan	9	7	16
		Calubian	Jubay	6	4	10
		Carigara	Barugohay sur	10	8	18
			Cogon	11	14	25
			Parag-um	7	4	11
			Tigbao	27	7	34
		Jaro	Hiagsam	10	8	18
			Magaso	2	10	12
Sub-total				91	79	170
Vegetables	Northern Iloilo	Lemery	Nasapahan	17	8	25
Herbs		San Dionisio	Cubay	18	1	19
Seaweeds			Tiabas	23	11	34
Sub-total				58	20	78
TOTAL				247	134	381

1.3 Limitations of the Study

The following are the limitations which may affect the interpretation and analysis of the study:

- Most responses that are presented were mainly from farmers-producers. Responses from key informants such as professional service providers and local government officials were not clearly delineated in this report; rather, the information were presented as complementary data in relevant sections.
- The vegetable value chain is included in the quantitative survey but not in the qualitative data gathering (FGDs and KIIs). Qualitative data from the vegetable value chain is being compiled and consolidated and will be submitted with the interim report.
- The number of female and male survey respondents were targeted to be equal; however, the actual male respondent available were limited and women attended in their place. Overall this had a limited effect on the analysis, however the analysis for herbs is affected because there is only one male respondent; supplemental information will be gathered through an FGD with purposively drawn sample of men involve in the herb VC.

1.4 Organization of the Report

This Report is divided into four major parts: 1) Brief description of the focus value chain commodity (abaca, cassava, herb, vegetable and seaweed); 2) Study findings and analysis; 3) Conclusion and recommendations; and 4) Annexes. The Findings section presents the survey respondents' profile and the summarized findings across the value chains under six major themes: social cohesion; gender

division of labor; decision making in private and public spheres; access to business development and financial services; knowledge, skills and practices in business operations; and strengthening the value chain.

The Annex section presents the detailed study findings pertaining to the abaca, cassava, herbs and seaweed sectors. In each of these, the sub-topics are arranged in the following manner: a brief background on the industry value chain; the indicators of social cohesion and meaningful participation of women and men along the value chain; access to financial and business development services; knowledge, skills and strategies used in operations particularly risk-reduction measures; and issues and concerns along the value chain towards building resilient livelihoods. Each part concludes with recommendations for possible CARE intervention such that value chain players' participation in sustainable and resilient livelihoods is enhanced, during the life of the project, and their economic well-being is improved, in the long-run. Each of these sections are written as stand-alone for easy reference when planning for a particular value chain or province.

2.0 The Focus Value Chain Commodities

Based from the review of related literature, this section describes each focus value chain commodity, its characteristics, uses, by-products, and market demand.

2.1 Abaca

Also called Manila hemp, abaca is extracted from the leaf sheath around the trunk of the abaca plant (*Musa textilis*), a close relative of the banana, native to the Philippines and widely distributed in the humid tropics. Harvesting abaca is laborious. Each stalk must be cut into strips which are scraped to remove the pulp. The fibers are then washed and dried. Abaca is a leaf fiber, composed of long slim cells that form part of the leaf's supporting structure. Abaca is prized for its great mechanical strength, buoyancy, resistance to saltwater damage, and long fiber length of up to 3 m. The best grades of abaca are fine, lustrous, light beige in colour and very strong. Philippines is the world's leading abaca producer, where it is cultivated on 130,000 ha by some 90,000 small farmers. Today, abaca is still traditionally used to make ropes, twines, fishing lines and nets, as well as coarse cloth for sacking, however there is also a flourishing niche market for abaca clothing, curtains, screens and furnishings.

CARE Philippines has been providing assistance to upland communities and other value chain actors to efficiently produce, process and market abaca fiber to industrial buyers.

2.2 Cassava

Cassava is a woody shrub native to South America of the spurge family, Euphorbiaceae. It is extensively cultivated as an annual crop in tropical and subtropical regions for its edible starchy tuberous root, a major source of carbohydrates. Cassava is the third largest source of food carbohydrates in the tropics, after rice and corn. It is a major staple food in the developing world, providing a basic diet for over half a billion people. It is one of the most drought-tolerant crops, capable of growing on marginal soils.

As a good source of carbohydrate and protein, the different parts of cassava plant, the roots, leaves and stem, can also be used as animal feed. The leaves can be used as silage, dried for feed supplementation and as leaf meal for feed concentrates. The stem can be mixed with leaves and used as ruminant feed, or dried for feed concentrates. The roots can be chipped or pelletized and used as feed, while the root peel, broken roots, fiber and bagasse from starch extraction and gari processing can be dried and used directly as animal feed or as substrate for single cell protein production. The use of cassava root as animal feed is increasing in importance in developing countries such as in Asia where an export market for this commodity has developed.

Cassava is planted each year on about 120,000 hectares of agricultural land in the Philippines, producing about 1.8 million tonnes of cassava roots. The principal products of the processing industry are food, dried chips and starch. As a food crop, demand for cassava is increasing and this trend is expected to continue with the increase in population and improvements in techniques for transforming cassava roots into more convenient and attractive products. As an animal feed ingredient, cassava roots processed into pellets has increasing demand as an alternative to the dwindling supply of the conventional imported feed resources.

The project provides assistance to cassava value chain actors to produce and process cassava into pellets to supply the demands of big animal feed producers. The community enterprises plan to diversify into cassava processing for food products in the medium term.

2.3 Herbs

In general use, herbs are any plants used for food, flavoring, medicine, or perfume. Culinary use typically distinguishes herbs from spices. Herbs refer to the leafy green parts of a plant (either fresh or dried), while a "spice" is a product from another part of the plant (usually dried), including seeds, berries, bark, roots and fruits. Culinary herbs are distinguished from vegetables in that, like spices, they are used in small amounts and provide flavor rather than substance to food. On the other hand, some herbs contain phytochemicals that have medicinal effects on the body. According to the Philippine Bureau of Agricultural Research, growing culinary and medicinal herbs has its own niche in the market. Although comparatively small at present, the organic section of the market is favoring the demand for culinary herbs, reinforced by the desire to consume natural and organic products. The trend towards a greater variety of ethnic cuisine also offers increased prospects towards developing this niche for culinary herbs.

The project has been providing assistance to value chain actors in the production, processing and marketing of fresh, dried and processed culinary and medicinal herbs. Culinary and medicinal herbs are used and consumed as fresh cuts, live plants, or dried. In diversifying herb products and as a strategy to realize its full potential, culinary herbs are also made available through value-adding to develop products such as herbals teas, jellies, sauces, herbed vinegars, and wreaths.

2.4 Seaweeds

Seaweeds are classified as algae as they have no roots, stems or leaves. They are distributed in the ocean at various depths either free floating or attached to sand, mud, rocks, shells, corals etc. Among

the seaweed varieties cultivated in the Philippines, red seaweeds, *Eucheuma*, locally called *guso*, is economically the most important seaweed. *Eucheuma* serves as raw material for the production of agar, a thickening agent used in food and pharmaceutical industries. Dried *Eucheuma* is an important export product of the fishing sector (ranking third after tuna and shrimp). Forty-two percent of *Euchem*a is produced in the Mindanao-Sulu area, followed by the Visayas with 28.63%.

The project has been supporting community fisherfolk associations and other actors in Northern Iloilo and Antique (both in Visayas) involved in seaweeds cultivation, processing and trading.

2.5 Vegetables

In everyday usage, a vegetable is any part of a plant that is consumed by humans as food as part of a savory meal. It normally excludes other food derived from plants such as fruits, nuts and cereal grains, but includes seeds such as pulses. The original meaning of the word vegetable, still used in biology, was to describe all types of plant, as in the terms "vegetable kingdom" and "vegetable matter". There is a multitude of typical 'tropical vegetables', which can be seen more and more in markets in Asia, Australia and South Africa, such as squash, eggplant, spinach, carrots, bitter melon, cabbage, string beans, cucumber, etc.

The vegetable industry in the Philippines constitutes more than 30% of total agricultural production, and is a major component of its Gross Domestic Product (GDP). Production is based on highland and lowland cropping in the wet and dry seasons. Some new enterprises are focusing on intensive cultivation and/or production under contract for export, processing, or for high-end retail and food industry markets. There are also focused initiatives to stimulate peri-urban horticulture.

The project has been supporting communities and value chain actors in the production, processing and marketing of varieties of vegetables for local market.

3.0 Study Findings and Analysis

This section presents the findings of the study, including the survey respondents' profile and the six major themes of the study. These themes are: social cohesion; gender division of labor; decision making in private and public spheres; access to business development and financial services; knowledge, skills and practices in business operations; and strengthening the value chain.

3.1 Respondents' Profile

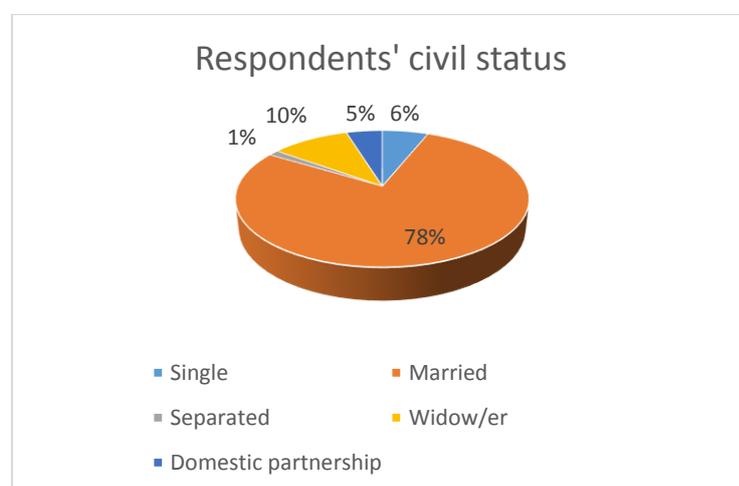
There were 381 survey respondents, comprised of 247 or 65% females and 134 or 35% males. Table 4 below shows the comparison of the number of respondents by sex and by commodity. Cassava and abaca were clearly the two most represented commodities, with relatively similar numbers present from the remaining value chains. The majority of men were from the cassava value chain (59%), with most women from either the abaca (40%) or the cassava (37%) chain. Further, almost half (45%) of the respondents were from Leyte, followed by Antique (35%) and Northern Iloilo (20%).

Table 4. Sex Disaggregated Survey Sample by Commodity

Commodity	Male		Female		Total	
	No.	%	No.	%	No.	%
Abaca	35	26%	98	40%	133	35%
Cassava	79	59%	91	37%	170	45%
Herbs	1	1%	18	7%	19	5%
Seaweeds	11	8%	23	9%	34	9%
Vegetables	8	6%	17	7%	25	6%
TOTAL	134	100%	247	100%	381	100%

The majority of the respondents were married (78%) followed by widow/er (10%), single (6%), in domestic partnership (5%), and separated (1%).

Figure 1. Civil status of respondents



In terms of level of schooling, a little over half reached primary level (54%), followed by secondary level (36%), college level (7%), vocational level (2%), and other (1%). Table 5 below shows respondents' level of schooling by sex, which shows a relatively equal level of education amongst men and women.

Table 5. Sex Disaggregated Respondents' Level of Schooling

Level of schooling	Male		Female		Total	
	No.	%	No.	%	No.	%
Primary	76	57%	130	53%	206	54%
Secondary	49	37%	90	36%	139	36%
Vocational	3	2%	4	2%	7	2%
College	4	3%	23	9%	27	7%
Others	2	1%	0	0%	2	1%

The monthly average household income from **agricultural or entrepreneurial activities** was P1,822, with males having a slightly higher income of P1,894 compared to females with P1,750. Among the commodities, respondents engaged in vegetables have the lowest income while those engaged in seaweeds have the highest. Males have higher average incomes in abaca, vegetables and seaweeds compared to females. On the other hand, females have higher average incomes in herbs and cassava.

Monthly average household income from **all sources**⁸ is P3,367, with males having a slightly higher income at P3,384 compared to females at P3,350. Income is lowest in abaca areas and highest in seaweeds areas. Males have higher average income in herbs and seaweeds areas compared to females. Females fared better in abaca, vegetables and cassava areas.

Depending on household size, monthly household **per capita income**⁹ is lowest in abaca and highest in seaweeds. Overall, average household per capita income is P837¹⁰ with male respondents reporting higher income household per capita at P974 compared to female respondents' household per capita of P700.

Overall, these figures indicate that the male and female farmers' current livelihoods are not sufficient for them to generate an income above the poverty threshold. Of the total respondents, the survey found that only one is living above the poverty threshold. The monthly poverty threshold is equivalent to the per capita income, which is calculated by dividing the total monthly household income from all sources by household size. The average **monthly poverty threshold** is P837 in both Regions 6 and 8 where the project is being implemented. Only one exceeded the threshold of P8,022, the national figure in 2014, with an average per capita income of P13,300. Regional data needs to be determined for adequate comparison with the survey results.

3.2 Social Cohesion

Social cohesion is defined as “a general condition of stable co-existence within communities, when community members accept socio-economic differences, have equitable access to livelihoods and other community resources, and feel safe and secure in their homes”. Social cohesion and livelihoods are very closely linked as social tension is most likely to arise if livelihoods become scarce. (Humanitarian Response website)

From the Qualitative survey, focus group discussions of the four commodities (vegetables were not included) reveals several indicators of social cohesion. These are pro-social behavior, trust, meaningful participation in community affairs, cooperation and a sense of belongingness. These indicators are manifested across all value chains in various traditional practices.

Table 6. Summary of social cohesion practices by commodity¹¹

⁸ All sources means income from salaries and wages, agricultural or entrepreneurial activities, transfers or remittances, and other sources (pensions, dividends, rental income).

⁹ *An average spread of household income among household members*

¹⁰ National average monthly per capita is Php1,604 in 2014.

¹¹ Information for the vegetable will be provided with the interim report

Abaca	Cassava	Herbs	Seaweeds
<ul style="list-style-type: none"> • Only abaca male farmers participate in self-help groups such as <i>hil-o</i> and <i>dagyaw</i>. • Every farmer puts his/her trust that members will work on each other's farms with same vigor and energy. • Sharing of <i>saha</i> or corms (abaca tubers) especially to those in need. 	<ul style="list-style-type: none"> • Community offers free and voluntary assistance to help in farming. • <i>Araglayon</i> (a self-help group, also known as <i>ayunay</i>) is also a practice that extends favors to other farmers. • Sharing of tools and farm equipment, especially during harvest time. • Sharing of <i>paka</i> or planting materials to farmers in need. • Men give discounted rates to labor services if that is the only way for the fellow farmer to be able to have their own cassava farms, like the cases of the widow, the single mother, and the spinsters who are living alone. • At the household level, wives and husbands share in decision making in the use of money, production schedules, attending trainings and the children's schooling. 	<ul style="list-style-type: none"> • Husbands trust in their wives to manage the herb farms and develop these as significant sources of additional income for the family. • Members of the association are expected to help everyone. • At the household or individual farm level, farmers resort to <i>tawili</i>. It is a bayanihan-type of arrangement where those who join the <i>tawili</i> are not paid in cash. However, they are given a share during harvest time. 	<ul style="list-style-type: none"> • Fisher folks or seaweed farmers depend on each other's knowledge and skills. • Male seaweed farmers assist each other, especially women, during the planting preparation. • Both men and women farmers participate in community decision making, particularly those called by the Barangay Captain. • Women feel that they are not discriminated in the work area except when women are replaced by husbands during their monthly menstrual period where they are constrained not to go to the farms.

Significant social cohesion practice displayed and common to the five commodities is *bayanihan*. The concept of *bayanihan* exudes “community spirit” where members of the communities come together to help out any member of the community in need without expecting monetary return or favors. Though terms may vary across the five commodities, the essence of community spirit is demonstrated in sharing of agricultural practices, planting materials, farm tools and labor. However, it should be noted that some practice, particularly in abaca commodity only where women are excluded in self-help groups.

3.3 Gender Division of Labor

Gender roles are socially constructed roles, behaviors, activities and attributes that a given society considers appropriate for men and women.

In the Philippines, gender division of labor is largely influenced and shaped by society’s perception of women’s and men’s roles, values, cultural norms and time. Traditionally, Filipino women are expected to stay at home, care for the house, children and to work in gardens while Filipino men are in charge of cultivating land, and are classified into the more dominating roles, typically holding a higher rank than women. The nurturing and caring roles of women often limit the economic activities they can engage in which also sometimes mirrors the extent of reproductive roles they play. Hence, women engage in livelihoods that are home-based or within close proximity where they can still manage the household¹². These perceived and accepted gendered roles may change (negatively or positively) over time according to other several factors such as evolving social norms and culture.

The survey assessed how 11 identified household and enterprise tasks, as outlined below, are assigned and divided between women and men.

Table 7: Summary of household and enterprise activities

Household tasks	<ul style="list-style-type: none"> - Washing clothes - Repairing the house - Buying food - Preparing food - Cleaning the house - Paying bills - Purchase of productive assets - Purchase of household assets - Caring for small children - Caring for the elderly - Caring for the sick household members
Enterprise activities	<ul style="list-style-type: none"> - Procurement of inputs or goods - Manual labour in the farm - Looking for creditors - Selling the produce - Making a loan to invest in the enterprise - Paying debts - Budgeting - Marketing - Negotiating with suppliers - Setting the price of negotiating with buyers - Dealing with officials (banks, market, government)

¹² This is a general statement and at the same time a finding from our Conditional Cash Transfer assessment done in 2015.

3.3.1 At the Household Level

Overall

Overall, after combining the responses of ‘usually females’ and ‘females only’, women take care of approximately 64%, or seven out of the 11, household tasks. These are doing the laundry, buying and cooking food, cleaning the house, paying bills, and caring for children and the sick. These are the traditional roles that women play within a household. This is validated by the men’s responses, which clearly identify these activities as the prime responsibility of women. Equally shared task common to both men and women is the purchase of both productive and household assets. However, a gendered division is evident when looking at tables 7 and 8 below, with more women claiming responsibility for purchasing of household assets, aligning with their traditional role within the home, and more men claiming responsibility for the purchase of productive assets.

On the other hand, repairing of houses was the only task recognized by both male and female respondents that remains to be delegated solely to men.

The survey also found that on average, across all five value chains, women and men equally spend around three hours per day in maintaining and managing the household. The rationale for this setup will be further verified during monitoring. The daily time-use and corresponding tasks will be asked instead of the number of hours devoted to both household management and enterprise. Thus, the result is likely to more accurately reflect the unequal division of labour at home.

Table 8. Household task by female respondents

OVERALL PER TASK	Females	%	Shared equally	%	Males	%	Does not apply	%
How do you divide the following tasks:								
Washing clothes	222	90	24	10	1	0	0	0
Repairing the house	35	14	25	10	185	75	2	1
Buying food	189	77	43	17	14	6	1	0
Preparing food	217	88	27	11	3	1	0	0
Cleaning the house	223	90	23	9	1	0	0	0
Paying bills	173	70	38	15	26	11	10	4
Purchase of productive assets	71	29	79	32	40	16	57	23
Purchase of household assets	136	55	94	38	11	4	13	5
Caring for small children	178	72	32	13	5	2	32	13
Caring for elderly	87	35	21	9	2	1	137	55
Caring for sick	163	66	72	29	1	0	11	5

Table 9. Household task by male respondents

OVERALL PER TASK	Females	%	Shared equally	%	Males	%	Does not apply	%
How do you divide the following tasks:								
Washing clothes	95	71	19	14	20	15	0	0
Repairing the house	13	10	4	3	116	87	1	1

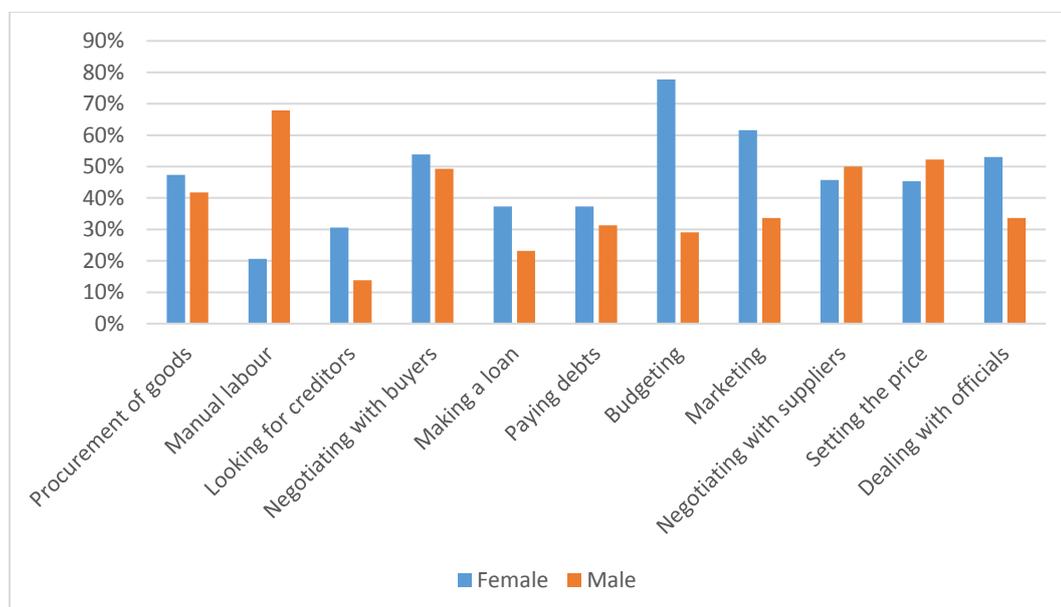
Buying food	58	43	37	28	38	28	1	1
Preparing food	92	67	20	15	22	16	0	0
Cleaning the house	95	71	21	16	17	13	1	1
Paying bills	57	43	28	21	43	32	6	4
Purchase of productive assets	20	15	51	38	48	35	15	11
Purchase of household assets	40	30	66	49	27	20	1	1
Caring for small children	88	66	14	10	12	9	20	15
Caring for elderly	46	34	12	9	9	7	67	50
Caring for sick	60	45	47	35	14	10	13	10

Across the five value chains, it is evident that women and men remain in the traditional household roles and responsibilities, in turn reinforcing the stereotyping of roles and responsibilities. Men are more open to sharing tasks with women, particularly in the procurement of food and assets, either for productive or household use, and caring for the sick, as indicated by the higher percentage of men who note these activities as 'shared equally'. This, however, may only reflect men's aspirations or overestimations of their participation in household tasks and not the actual arrangement. Both female and male respondents agree that purchasing assets should be equally shared.

3.3.2 At the Enterprise Level

Regarding division of economic tasks, women are responsibly for 73%, or eight out of 11, tasks. Looking at Table 7 below, women are responsible for the procurement of goods, looking for creditors, negotiating with buyers, making a loan, paying debts, budgeting, marketing and dealing with officials. Men are at the forefront of manual labor, negotiating with suppliers and setting the price.

Figure 2. Participation in economic activities by sex



As shown in Figure 6, overall survey results found that 61% of men are enterprise leads (business owner), with higher rates seen in the cassava and abaca value chains. In turn, women lead the herbs, seaweeds and vegetables value chains. There are more paid women workers with 32% as compared to men with 24% across the value chain. Subsequently, 14% of male respondents are unpaid compared to 10% of female respondents.

Figure 3. Respondents' position in the enterprise by sex



More men workers perform unpaid work. At the enterprise level, across all commodities, a higher percentage of male workers are unpaid compared to women workers. However, social cohesion practices suggest that more male farmers are involved in community self-help groups that are free of charge and voluntary. Men support or perform unpaid work in livelihoods being led by women or those that can easily be combined with women's household responsibilities such as herbs and vegetables. Men's level of effort is less in these engagement compared to their main sources of livelihoods which are rice farming or fishing.

Women play multiple roles. Alongside the above stated reproductive roles within the household, the data shows that women are also performing the majority of tasks at the enterprise level. While this indicates a positive shift from traditional reproductive roles to productive and paid work for women, this suggests they may also be trapped in the 'double-day' burden – doing a full day of work in the field or at the market before coming home to do another full 'day' of work maintaining the household. Survey results show that in a normal 8-hour work day, women spend equal amounts of time doing house and farm activities of three hours each.

3.3.3 At the Community Level

In terms of leadership experience, or in other words having experience being a group leader or officer in the organization, women appear to have more leadership experience in vegetable farming, whilst men stood out in cassava and seaweeds. Logically, vegetable farming is one of the livelihoods women can engage in more conveniently as most farms are close to households, which allows women to more easily manage her household at the same time.

Table 10. Leadership experience by commodity and sex

Commodity	Female		Male	
	Yes	No	Yes	No
Abaca	20	24	3	7
Cassava	12	22	18	4
Herbs	No data		No data	
Seaweeds	5	5	4	3
Vegetables	6	4	2	1

Apart from their membership in associations assisted by CARE, male and female respondents are also members of different organizations, an indicator for participation in formal decision-making spaces. Women are more active across all value chains in joining organizations than their male counterparts, however, for both men and women, the majority of respondents note that they are not members of other organizations.

Table 11. Membership in other organizations by Commodity and Sex

Commodity	Female		Male	
	Yes	No	Yes	No
Abaca	44	54	10	25
Cassava	34	57	22	57
Herbs	3	15	0	1
Seaweeds	10	13	7	4
Vegetables	10	7	3	5

The majority of female respondents are members of credit associations and other organizations, and also registered almost twice the number of memberships as men did (81 vs. 41, respectively). This corroborates women's identified responsibilities of looking for creditors and making loans. It should be noted that there were only 122 (32% of the overall sample size of 381) respondents to this question.

Table 12. Membership by Type of Organization by Sex

Type of Organization	Female	Male
Credit Association	19	11
Informal Savings	4	0
Government Council	14	4
Government Sponsored	13	19
Others	31	7

3.4 Decision Making in Private and Public Spheres

One of the critical areas of inquiry is how effectively women and men and groups are able to claim their rights. The ability to meaningfully participate in public spaces and claim one's rights depends on if the enabling environment encourages and supports active participation of women and men to contribute to decisions, where their ideas are heard and considered, and where they can take part in leadership or decision-making.

As equal members of the community, it is important to have the space and standing to be able to participate meaningfully in public decision making. In this regard, the survey looks into the level of decision making of women and men involved in the five commodities at the enterprise and community levels (public) in relation to the existing knowledge, skill and capacity each individual has.

3.4.1 At the Agency Level

In the qualitative survey, respondents were asked if they agree or disagree on eight statements below:

1. Women should be able to stand for election to all publicly elected bodies just like men.
2. Women should be leaders just like men.
3. Women should have a say in important decisions in the community.
4. The big household purchases should be made only by the men in the family.
5. If the wife is working outside the home, then the husband should help her with household chores.
6. Women solely decide on the number of children and family planning choices.
7. Women should consult their husbands concerning strategic business decisions and to take that advice regardless of its suitability.
8. When going to most public places, a woman should obtain the permission of her husband or the head of the household.

Of the eight decision-making categories, women recognize their decision-making ability at home in four of these categories:

- i. 85% of total women respondents said that women should be able to stand for election to all publicly elected bodies just like men;
- ii. 83% of total women respondents said that women should be leaders just like men;
- iii. 84% of total women respondents said that women should have a say in important decisions in the community; and
- iv. 78% of total women respondents said that husband should help his wife with household chores if she works outside the home.

Women and men agreed on the majority of the above statements, however they disagreed that women should solely decide on the number of children and family planning choices. It can be noted that women agree more on this than males, with 29% and 22% agreement, respectively.

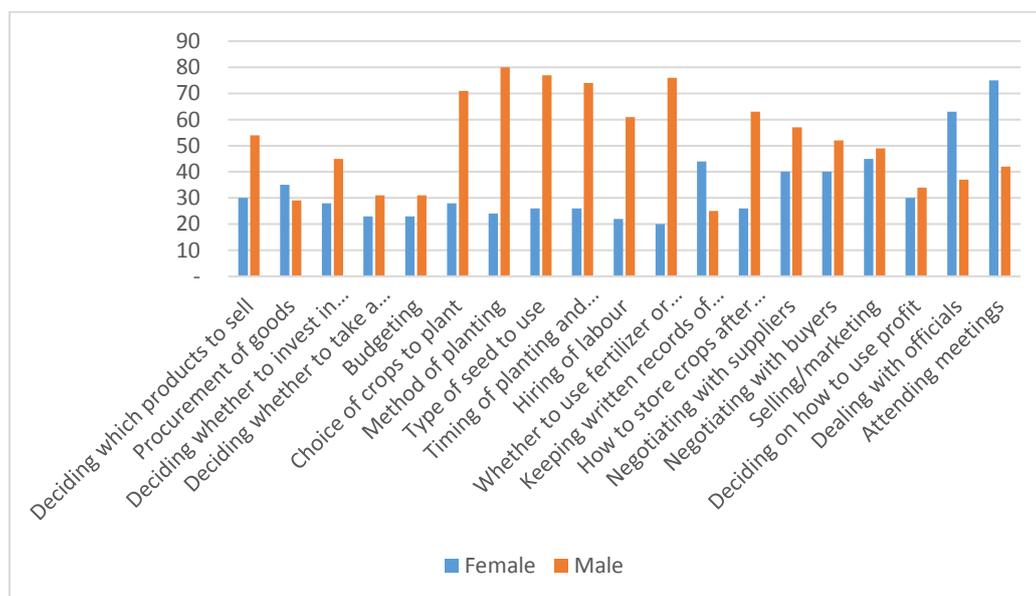
Women's and men's responses were almost equal in two categories: (i) women should be able to stand for election to all publicly elected bodies just like men, and (ii) women should be leaders just

like men, with an affirmative response of over 80%. Both men and women also agreed that big purchases should be made only by men in the family.

On the one hand, men strongly believe that women should (i) consult their husbands concerning strategic business decisions and to take that advice regardless of suitability, and (ii) should generally obtain permission from her husband or the household head when going to public places, with 93% of men and 85% of women agreeing on these points.

3.4.2 At the Enterprise Level

Figure 4. Decision making in Enterprise activities by sex



Overall, an average of 52% of men are the primary decision makers in 15 of 19 identified enterprise activities compared to 34% of women. The 15 activities can be classified as key or major areas for decision in an enterprise. Though there is some variation across the five commodities, on the whole, the only activities where more women are making decisions independently are in the procurement of goods, keeping written records of farming, dealing with officials and attending meetings. This also shows that while women play a major role in running the enterprise, they are merely workers and do not hold key decision making positions of power. The exception to this are female-dominated value chains of herbs and vegetables.

3.5 Knowledge, Skills and Practices in Business Operations

Male respondents indicated relatively more experience, with a difference of 11% in establishing network linkages compared to female respondents. However, the majority of both men and women recorded having 1 to 2 existing enterprise networks and linkages established. Taken together, this

suggests that both men and men are able to establish network linkages, albeit limited to one to two linkages and albeit men have slightly more experience in this area.

Table 13. Experience in establishing network linkages by sex

	Female		Male		Overall
Yes	187	76%	117	87%	304
No	60	24%	17	13%	77
TOTAL RESPONDENTS	247		134		381

Table 14. Number of Existing Enterprise Networks/Linkages by sex

	Female	%	Male	%	Overall
1 to 2	234	95%	127	95%	361
3 to 5	10	4%	6	4%	16
More than 5	3	1%	1	1%	4
TOTAL RESPONDENTS	247		134		381

With regard to Table 14 below, this seems to indicate that linkages of both men and women respondents are concentrated in production.

Table 15. Enterprise linkages by sex

Value Chain Stage	Female	%	Male	%	Overall
Input provision	21	9%	12	9%	33
Production	203	82%	114	85%	317
Processing	1	0%	0	0%	1
Marketing	22	9%	8	6%	30
TOTAL RESPONDENTS	247		134		381

Abaca

For both Culasi and Laua-an in Antique, abaca farming is considered a traditional practice in that farmers continue to use the same inputs, technologies and practices to produce a low volume of output for the same domestic markets as in their forefathers' generation.

Abaca farming is not run like a business. There is no record keeping nor do farmers put value to self-owned and self-employed resources of the family labor or able-bodied members of the family to work on the abaca farms. Direct costs are kept to a minimum by resorting to mechanisms such as the *hil-o* and *dagyaw* which are self-help initiatives. These involve community effort to help other farm households in need. Moreover, the social cohesion among neighbors eases the financial burden in abaca farming, such as the giving of *saha* (planting material) and/or of not expecting monetary help from others because everyone understands that each one is financially hard-up, too. There is inadequate technical know-how among abaca farmers and many practices could be refined for higher productivity.

From the qualitative FGDs, below are knowledge, skills and practices in abaca farms.

Existing knowledge, skills and practices	
<ul style="list-style-type: none"> • Women are the ones who look for creditors • Women are the ones attending meetings and seminars • Couples share in the decision making regarding abaca farming • Women does the marketing 	
Gaps in Knowledge and Skills	Negative Practices
<ul style="list-style-type: none"> • Other varieties of abaca • Sorting and classification of fibers • Proper pest control and management • Fertilizer application 	<ul style="list-style-type: none"> • Farmers, especially women, are exposed to hazards (pests) • Male farmers migrate for work (<i>sacadas</i>) in Negros after planting abaca leaving women in charge • Preference to manual stripping over machines

Herbs

The herbs farmers’ knowledge and skills in herbs production is limited for domestic purposes and not for commercialization. There has been little entrepreneurial activity with regard to herbs, which are typically grown in an otherwise small backyard garden for household consumption, and as an alternative to expensive medicines and spices.

Gaps in Knowledge and Skills
<ul style="list-style-type: none"> • Pest control and management • Post-harvest and handling techniques • Fertilizer application • Do not know what market really needs • Drying techniques

Cassava

Typical of small-scale production, cassava farming uses traditional methods. It is not treated as a business or enterprise for profit-making or future expansion. However, if there is a market available, farmers are enthusiastic to expand their production to generate more sales.

Existing knowledge, skills and practices
<ul style="list-style-type: none"> • Farmers sell planting materials to FATIMA Multi-Purpose Cooperative • When there is no budget for livestock feeds, farmer harvests cassava in amounts need to feed the livestock. This is cheaper and less inconvenient way compared to selling the cassava at a low price and using the income to buy livestock feeds. • Husbands look for creditors, wives negotiate the credit terms • Male farmers believe that cassava affects the growth of intercrops • Cassava plants are used as collateral for debts • Out-of-town laborers are hired especially during harvest time

<ul style="list-style-type: none"> • Male farmers do not plant on Tuesday and Friday (cultural belief) • Women farmers use <i>tap-anan</i> to dry the cassava • Farmers (both sexes) know that young cassava weighs less than mature cassava 	
Gaps in Knowledge and Skills	Negative Practices
<ul style="list-style-type: none"> • Varieties and characteristics • Proper fertilizer application • Proper grading, sorting and classification (farm level) 	

Seaweeds

Existing knowledge, skills and practices	
<ul style="list-style-type: none"> • Women are the ones who look for creditors • Women are the ones attending meetings and seminars 	
Gaps in Knowledge and Skills	Negative Practices
<ul style="list-style-type: none"> • How to address <i>Ice ice</i> disease • Proper culture management • Marketing 	<ul style="list-style-type: none"> • Other fisherfolk still practice illegal fishing which affects their farms

Risk reduction measures are employed across all five commodities. Top responses for female and male respondents are the adoption of climate-smart farming technologies, identification of safe locations, using build back safer techniques in construction of houses and buildings, availing credit, insurance and other livelihood protection mechanism.

Table 16. Overall Risk reduction measures employed by sex

	Female	%	Male	%	Overall
Adoption of climate-smart farming technologies	119	48%	79	59%	198
Using build back safer techniques in houses & bldgs.	25	10%	11	8%	36
Safe location of farms	70	28%	25	19%	95
Availment of micro credit, crop insurance or other livelihood protection mechanisms	14	6%	3	2%	17
Access to credit	11	4%	14	10%	25
Savings for business	0	0%	0	0%	0
Emergency preparedness	8	3%	2	1%	10
Others	0	0%	0	0%	0
TOTAL RESPONDENTS	247		134		381

Table 17. Risk reduction measures by Commodity and Sex

Abaca					
Responses	Female	%	Male	%	Overall

Adoption of climate-smart farming technologies	41	42%	19	54%	60
Using build back safer techniques in houses & buildings	13	13%	3	9%	16
Safe location of farms	32	33%	11	31%	43
Availment of micro credit, crop insurance or other livelihood protection mechanisms	6	6%	1	3%	7
Access to credit	1	1%	0	0%	1
Savings for business	0	0%	0	0%	0
Emergency preparedness	5	5%	1	3%	6
Others	0	0%	0	0%	0
Total Respondents	98		35		133

Cassava

Responses	Female	%	Male	%	Overall
Adoption of climate-smart farming technologies	46	51%	50	63%	96
Using build back safer techniques in houses & buildings	0	0%	1	1%	1
Safe location of farms	28	31%	12	15%	40
Availment of micro credit, crop insurance or other livelihood protection mechanisms	7	8%	2	3%	9
Access to credit	10	11%	14	18%	24
Savings for business	0	0%	0	0%	0
Emergency preparedness	0	0%	0	0%	0
Others	0	0%	0	0%	0
Total Respondents	91		79		170

Seaweeds

Responses	Female	%	Male	%	Overall
Adoption of climate-smart farming technologies	9	39%	3	27%	12
Using build back safer techniques in houses & buildings	8	35%	6	55%	14
Safe location of farms	5	22%	1	9%	6
Availment of micro credit, crop insurance or other livelihood protection mechanisms	0	0%	0	0%	0
Access to credit	0	0%	0	0%	0
Savings for business	0	0%	0	0%	0

Emergency preparedness	1	4%	1	9%	2
Others	0	0%	0	0%	0
Total Respondents	23		11		34

Herbs

	Female	%	Male	%	Overall
Adoption of climate-smart farming technologies	10	56%	0	0%	10
Using build back safer techniques in houses & buildings	4	22%	0	0%	4
Safe location of farms	3	17%	1	100%	4
Availment of micro credit, crop insurance or other livelihood protection mechanisms	1	6%	0	0%	1
Access to credit	0	0%	0	0%	0
Savings for business	0	0%	0	0%	0
Emergency preparedness	0	0%	0	0%	0
Others	0	0%	0	0%	0
Total Respondents	18		1		19

Vegetables

	Female	%	Male	%	Overall
Adoption of climate-smart farming technologies	13	76%	7	88%	20
Using build back safer techniques in houses & buildings	0	0%	1	13%	1
Safe location of farms	2	12%	0	0%	2
Availment of micro credit, crop insurance or other livelihood protection mechanisms	0	0%	0	0%	0
Access to credit	0	0%	0	0%	0
Savings for business	0	0%	0	0%	0
Emergency preparedness	2	12%	0	0%	2
Others	0	0%	0	0%	0
Total Respondents	17		8		25

3.6 Access to Business Development and Financial Services

The survey determined respondents' access to existing business development and financial services being provided by various groups such as academe, government, NGO, and private sector. Satisfaction to these services was also determined.

Access to services

Overall, **by sex**, females have more access to services than males in all commodities. The survey showed that on average 57% of females compared to 45% of males have access to services. By type of service, 69% of females compared to 59% of males have access to business development services, whilst 33% of females compared to 19% of males have access to financial services.

By type of service, business development services are accessed more than financial services. Organizational management ranked the highest and is able to be accessed by 80% of females and 84% males. On the other hand, access to micro insurance ranked the lowest, and is only able to be accessed by 28% of females and 14% of males. **By commodity**, male and female respondents have the highest access to services in seaweeds while cassava has the lowest in all services. Females have more access to a range of services across all commodities compared to males except in abaca (five types of BDS such as market management, business development, technology, financial management, and bookkeeping) and cassava (four types of BDS such as organizational management, financial management, business development, and market management).

FGD results showed that access to services depends on several factors:

- Access depends on the current level of importance that farmers attach to the commodity as a source of income. Particularly for herbs farming, trainings were not easily available since herb production is not considered as an income-generating activity but mainly for household consumption. With CARE assistance, the herb production and processing is now treated as an enterprise. There have been series of trainings conducted to provide access to this service: product development, how to dry the herbs, production technologies, and the GAP training.
- Farmers do not see the need for training because they are used to traditional methods of production that are passed from generation to generation. In Jaro, Leyte, both male and female cassava farmers think the traditional way has worked for years and has sent children to school. It is the same in Laua-an, Antique, where trainings are very rare to not happening at all in some areas. Some abaca farmers seem not to mind this inadequacy since they believe that what they learned from their grandparents will suffice the current state of abaca farming. Abaca farmers claim that they also have not attended any training related to farming. They have been producing the same *lanot* (abaca fiber) that their ancestors produced.
- In terms of financial services, farmers from Culasi and Laua-an in Antique and Jaro in Iloilo do not see the need for financing because production costs are minimal and they do not want to fall into debt. In Culasi and Laua-an, male and female farmers do not see the need for financing because production costs are minimal. The corm or *saha* is mostly taken from suckers of existing abaca plants. If ever the farmer needs more, there are times that he or she can ask from a relative. Labor costs are also minimal in the two municipalities. It is the family labor that plants and harvests the abaca, or the *hil-o* (self-help initiative) is resorted to when the area is larger. It is also not uncommon that labor is paid in-kind, that is, with a 2/3 share of the harvest. Other inputs such as fertilizer is also minimal since its application is not a priority. Tools are home-made and borrowed. Cassava farmers in Jaro, Leyte, also do not need capitalization. The farmers' idea is one wherein farms are small and, hence, financial

requirements can be taken care of with savings, *araglayun* (self-help), and free *patdan* (planting material).

Moreover, abaca farmers (both sexes) in Laua-an, Antique, generally do not have debts. They make do with their own domestic resources, and the labor that is provided by the family.

Ayaw naming mangutang. Walang kasarigan na ibayad. (We do not want to borrow money because we do not have any guarantee that we can pay.)

- The cassava farmers in Carigara and Jaro in Leyte also do not want to borrow money. They feel they would not be able to pay back a loan. Hence, they try to make both ends meet by selling bananas, fowls, livestock, and root crops. They also borrow from relatives with or without collateral, based on their word of honor. They try their best because they do not like the experience of facing a collector every week, who does not leave without the debtor paying the amortization that is due.
- More females are attending trainings in herbs and seaweeds provided by CARE. While these trainings are open to both men and women, it is the women who attend and participate. The situation is the same in seaweeds; most male seaweed farmers do not attend the trainings provided by BFAR or private organizations, and instead usually ask their wives to attend in their place. The foremost reason cited by husbands was their lack of time as they are busy doing other farming activities and, for those that are barangay officials, community activities.
- It is usually the males who attend technical trainings, which women are not often offered the opportunity to participate in. Trainings are usually related to farm work which the males do, and the trainings are designed specifically for males. There seems to be no conscious effort for a gender-balanced representation in these trainings. In Calubian, male farmers attend Sloping Agricultural Land Technology (SALT) Training where they are taught what to plant in sloping areas in order to prevent erosion, where participants also receive seeds of fruit trees for planting in such areas. For the females, there were trainings conducted on how to make cassava chips and the preparation of other food stuff from cassava.
- It is usually the females who borrow money. Farmers in Laua-an and Culasi generally do not see the need for financing. However, in cases when there is a need to borrow money, the female abaca farmer from Culasi is sent by her husband to borrow money, a maximum of P1,000 per farmer, from the abaca buyer a week before harvest, without interest. The farmer can also get grocery items on credit from the buyer's variety store. For these terms, the farmer is required to sell his harvest to the abaca buyer. In Laua-an, where the terms of the loan are not as favorable to the farmer as in Culasi, the loan is used to buy fertilizers for rice and corn farms. For a P1,000 loan, the borrower will have to pay P1,200 upon harvest. In Calubian, Leyte, cassava farmers loan at least P5,000 for labor cost and carabao/tractor rental at 3% interest per month, payable within a year. Other farmers obtain usurious loans called 5-6 from private creditors at 20% interest per month.

Results from both the survey and FGD showed that females have more access to trainings. The reason stated is that males are busy with their respective livelihoods. If males do attend trainings, these are mainly “technical” or those related to their main livelihoods. In comparison, the types of trainings females usually attend are related to low value, low capital-intensive income-generating activities (IGAs). These findings reinforce the stereotyped roles of males as the main income provider in the family whose work is therefore more recognized and more valued. In contrast, females’ income is viewed as supplementary to that of men’s.

There is low access to financial services because both female and male farmers either do not see the need or do not want to be in debt, especially for ventures that they are not very sure would prosper. Between females and males in abaca areas in Culasi and Laua-an, it is usually females who have access as they are seen by microfinance institutions as good payers because they hold the purse strings in the household. Getting a loan is perceived as an extension of females’ household responsibilities, which is viewed as their main domain. Loans are usually for a small amount, however, males may take out the loan themselves if it is a large capital injection for their own main livelihood.

The disparity in the level and quality of access to business development and financial services, including meaningful participation of women compared to men, may need to be looked into. The program also needs to ensure that these services are gender-responsive and risk-informed as intended.

Satisfaction to services

There is high satisfaction rate (82%) with services provided, with males slightly more satisfied than females (85% vs. 79%). By type of service, 86% of males compared to 71% of females are satisfied with business development. On the other hand, 94% of females compared to 82% of males are satisfied with financial services. This is despite the fact that overall men have lower access than females to services.

By commodity, seaweed has the highest satisfaction rate while cassava has the lowest. This is consistent with the earlier finding on access to services - the higher the access, the higher the satisfaction and the lower the access, the lower the satisfaction.

3.7 Strengthening the Value Chain

This section explores farmer-producers’ and entrepreneurs’ level of involvement in their respective commodity value chains – from input supply to production, processing and marketing. It describes the trends in the development of linkages such as backward (suppliers), forward (buyers or customers) or same value chain level (e.g., production). In marketing, common types of linkages with market players (walk-in, institutional, retail, and wholesale) and at which level (barangay, municipal, regional, national) are also determined.

The survey found that the majority (95%) of respondents, both female and male, have limited enterprise networks or linkages. This means that they have limited formal or established linkages with input suppliers, fellow producers, processors, and marketing. By value chain, linkage is significantly higher in production (84%) but low in input provision and marketing (9% and 8%, respectively) and none in processing (0%). By commodity, herbs have the most limited linkages while seaweeds have the most established networks.

In terms of market, the majority (82%) have established market linkages. This figure is higher among males (87%) than females (76%). By commodity, there is a higher percentage of males with market linkages in abaca, seaweeds and herbs, except in cassava. There is an equal percentage of males and females with market linkages in vegetables. The main market is institutional buyers followed by retailers, walk-in buyers, and wholesalers. However, it is limited to those buyers at the barangay level. Lack in self-confidence to negotiate in the market, lack of information about alternative markets, and lack of knowledge in marketing and linking with market channels all point to the situation where women and men farmers are not getting the best prices at market.

Overall, by sex, males have more established networks in all commodities except cassava compared to females, despite the fact there are more females conducting negotiation activities compared to males. Roughly 44% of males and 52% of females are negotiating with stakeholders across all value chains. Negotiation activities include procurement of goods, negotiating with suppliers, negotiating with buyers, and marketing; it is predominantly women negotiating in three out of four of these activities, the exception being negotiating with suppliers. It should be noted that the survey only determined who among men and women do the negotiating, not their ability to do it.

FGD results showed that male and female farmers' market negotiations in the commodities of abaca, herbs, vegetables and cassava are affected by a limited market, limited information of the market, and the poor quality of commodities.

In abaca, the only market is in the town proper, and as such there are limited buyers/traders. The buyer determines the grade and dictates the price of the abaca fibers. Farmers are also beholden to the buyer because they obtain a cash advance from the latter to cover the costs of harvesting. In cassava, there is a public market of limited size and the Fatima Multi-Purpose Cooperative that can buy larger volumes. Fatima is also the only buyer of dried chipped cassava. Since there is no value addition to the cassava, the farmers' markets are limited. In herbs, respondents said there is no clearly established market at this time; this is not surprising given that it is not yet widely considered a commercial crop. In a scenario where there are one or two buyers, the farmers who may have planted and harvested at the same time will be flooding the market with the product. Hence, the farmer is left with no choice but to accept the terms of the buyer. There is a herbs federation and some smaller associations, yet they also have no negotiating space since they, too, are uncertain about their capacity to guarantee delivery of the required volume.

Male and female farmers also have a problem with the poor quality of their produce. In abaca, farmers do not sort or classify abaca fibers. In herbs, farmers do not know how to retain the products' freshness. In the case of dried herbs, it often does not meet the moisture content requirement. In

cassava, it is only now that farmers will be taught how to dry and chip the cassava as a result of the demand from Fatima.

It will be vital that project beneficiaries strengthen and build networks and linkages, particularly with regard to processing and marketing, especially in herbs. The low network/linkage of the female beneficiaries should also be considered in building/enhancing their negotiation skills, as this is an important component in enterprise work. Overall, the program team needs to consider the program beneficiaries' limiting factors in establishing and building network/linkages. These are the key mechanisms by which beneficiaries will be able to substantially increase their income from their enterprise commodity.

The program has to explore and identify alternative support mechanisms at the organization level to enable women to realize their full potential. It would greatly help to organize and/or strengthen enterprise commodity beneficiaries to undertake collective marketing so that they can demand for the rightful price to the market. Since farmers' associations and women's groups have been organized and registered with the appropriate government agencies (e.g. DOLE), sustaining it is the next big challenge. Farmer-members require gender and entrepreneurial sensitization workshops. Inculcating the business spirit will be a necessary element in strengthening the organizations, enterprises and commodity value chains, in reorienting farmers' mindsets to one of building their businesses and increasing profits.

4.0 Conclusion and Recommendations

Farming in the Philippines is a family-based activity, which involves many members of the household, including women and children. As per the findings of this study, the role of women in agriculture and fisheries is currently predominantly in complementing the primary role of men, and in acting as a support system. The value chains of cassava, abaca and seaweed are dominated by men, whilst the herb value chain is dominated by women. Albeit, the work of women farmers is the same as their male counterparts, ranging from clearing the land, planting and fertilizer application, to harvesting and trading, and the wages are equal for the same type of work.

However, work opportunities with higher income potentials, such as migration and off-farm work, are more open to men than to women since this would take women away from their reproductive roles in the home. Within the value chains, the work of women and men generally is limited by the skill, knowledge, and physical capability of the worker. For instance, the women who don't know how to swim are not able to apply proper seaweed farming techniques and management.

The degree of social cohesiveness among farmers is high. With low and unstable incomes, men and women farmers work together and find ways to support each other such that they are still able to plant cassava, abaca and herbs without falling into deep debts. There is a general perception of fear around debts amongst farmers, as they are concerned that they will not be able to repay the debt. Though social cohesiveness helps men and women farmers participate in the value chain, their

livelihoods do not graduate and operate as fully-pledged enterprises because they lack appreciation and understanding of the potential market for their crops, hence, believing that their markets uncertain.

Farmers' association members attend meetings and seminars and are receptive to new knowledge/technologies that are introduced. It is observed that more women attend, not because men are not interested but because men prioritize their paid work. The opportunity cost, therefore, for attending meetings is perceived to be high enough such that men cannot afford to lose an income of roughly P500/day. It is likewise observed that a husband and wife will not attend the same meeting at the same time either because no one will be left at home to take care of the kids and prepare for the family's meals or because they both cannot pass up a daily wage.

Meaningful participation in the value chains is observed to be confined within the specific function across value chain stages. For example, in input provision, men and women farmers help each other by giving free *paka, saha, patdan*, seeds and seedling. In the production function, they reduce direct labor costs through *dagyaw* or *hil-o* in abaca farms, *ayunay* in cassava farms, and *tawili* in herbal farms. There is also the *bayanihan* type of self-help, particularly during planting and harvest time. Women's access to resources such as financial capital, production inputs, technologies, and trainings was found to be high in this study but there is evidence that women farmers still lack full control over these resources. Men continue to have the final decision making power over major decisions concerning the family and livelihood, however women are consulted in this process.

Across value chain functions, however, governance is weak and meaningful participation, particularly in decision making, is poor. Both women and men farmers are captive suppliers of monopolist-buyers who do not provide enough space for farmers to negotiate on prices. Both men and women in the value chain do not possess the skills and knowledge to appropriately negotiate prices. Moreover, vertical value chain linkages are lacking between federations, co-ops, women's associations and the individual farm units. However, there are enablers such as the LGUs, present, whose active engagement in the value chains could further support women's initiative in production, processing and trading using the municipal government gender budget.

It is imperative, therefore, for interventions to take into account the various circumstances, including gender, of the farmers. More so, the differential situation of men and women in the value chain and how programs can impact men and women differently has to be considered vis-à-vis the gender issues.

Below is a matrix that summarizes a dozen gender issues that were identified in the qualitative baseline study, with the corresponding gender empowerment strategies and expected changes that can happen towards making the value chains more resilient. The issues of gender inequalities are manifested in the following:

- (1) Less paid work time for women due to her productive and domestic burden;
- (2) Unequal access to and control of productive resources;

- (3) Unequal access to trainings and capacity development activities;
- (4) A lack of skills in negotiating with suppliers of inputs and buyers of farm produce;
- (5) Women are tasked to look for creditors when there are cash shortages;
- (6) Unequal representation in organizations;
- (7) Unrecognized practical and strategic gender needs;
- (8) Mothers' increased work time increases daughters' heavier burden at home;
- (9) Women undertake marketing of produce yet have an insignificant role in deciding on the utilization of revenues;
- (10) More job opportunities are open to men than to women;
- (11) Women have limited in the value chain; and
- (12) Policies and programs are gender-blind.

The socio-cultural norms that envelope these gender issues are deep-seated in a patriarchal agrarian community where males are the household heads, whereby decision making, resource ownership and control, and positions outside the home all revolve around the men. Girls and women are prepared by society within the maternal and nurturance/caring constructs, hence, economic work for women is typically an extension of housework.

Table 18. Summary Matrix of Gender Issues and Gender Empowerment Strategies in the Abaca, Cassava, Seaweeds, Vegetables and Herbs Value Chains

Key gender inequalities	Examples of the impact of this issue identified in the baseline report	Gender Empowerment Strategy					Expected changes	
		Abaca farms	Cassava farms	Herb farms	Seaweeds	Vegetables farms		
Gender stereotyped roles and expectations both at the household and community level hamper women's access to and control over productive resources	<ul style="list-style-type: none"> Women have less paid work time than their male counterparts, and are relegated to unmonetized domestic functions. Unequal representation in organizations and self-help groups, as women's priority is in the home and she is only allowed to attend meetings and join groups as her time allows. Daughters have a heavier burden of household chores if mothers need additional help and in order to prepare girls for their future 	<ul style="list-style-type: none"> Gender sensitivity session for women and men farmers (on shared reproductive roles to reduce women's double burden) Provision of alternative economic opportunities to be accessed, owned and operated by women (e.g. processing of abaca/cassava/herbs/seaweeds) Build new skills for mothers and daughters (eg. Entrepreneurship skills). 	<ul style="list-style-type: none"> Review and revise organization policies to encourage participation of women and men as members and equal representation in leadership posts. 				<ul style="list-style-type: none"> Women have higher cash incomes brought about by greater number of paid work hours Women are targeted or principal participants of meetings and other activities and not just mere representatives in cassava, abaca and seaweeds. Gender-sensitive Structures/policies on land stewardship and membership in organizations Improved men's and women perception, value and attitude towards women's status, work and gender relations. 	
		<ul style="list-style-type: none"> Advocate with DENR to qualify women as registered land stewards 	<ul style="list-style-type: none"> Encourage both husband and wife to attend organizational meetings, hence, both their voices be heard in the operations of <i>hil-o</i>, <i>dagyaw</i>, <i>tawili</i>, <i>ayunay</i> Assign women farmers to specific tasks such that is not merely as an appendage to men's work. 		<ul style="list-style-type: none"> Actively engage men in various activities along the value chain 			

<p>Women are often marginalised into labor-intensive and low-paying value chains activities which further reduces their opportunity to meaningful participation</p>	<ul style="list-style-type: none"> Lack of job opportunities for women as they are trained to do light and menial work that are often less lucrative e.g. they are limited to VC functions in trading/marketing and processing 	<ul style="list-style-type: none"> Train women farmers on use of mechanized tools/equipment, fertilizer application, pest control and management, in planting/harvesting technologies. Train women on cost analysis, pricing and negotiation techniques. 	<ul style="list-style-type: none"> Include men in herbal drying and processing. Train women on organic fertilizer. Train women on cost analysis, pricing and negotiation techniques 	<ul style="list-style-type: none"> Train women on seaweeds management and processing. Equip women with life skills such as swimming and driving. Train women on cost analysis, pricing and negotiation techniques 	<ul style="list-style-type: none"> Train women farmers on fertilizer application, pest control and management and post-harvest technologies 	<ul style="list-style-type: none"> New skills acquired by women. Women with improved negotiation skills are able to command higher prices, book and close deals and establish buyers and suppliers.
	<ul style="list-style-type: none"> Women do not have the option of migration to look for better job opportunities 	<ul style="list-style-type: none"> Personal development sessions for women and men to increase self-confidence and improve communication skills. Link women to government agencies with providing skills training opportunities to be able to meet labor market demands outside their communities Financing and technical assistance to women farmers who desire to go into traditionally-male dominated work. 				<ul style="list-style-type: none"> Women have the option to work outside their communities with support from family (labor migration).
	<ul style="list-style-type: none"> Organization membership traditionally reserved for men 	<ul style="list-style-type: none"> Gender sensitization sessions for program developers/implementers and policymakers Review and revise organizational policies to consider equal representation of women in membership and leadership roles. 				<ul style="list-style-type: none"> Active engagement of women farmers; enhanced confidence to hold leadership roles.

	<ul style="list-style-type: none"> Absence of gender mainstreaming in the tools, trainings, technologies and infrastructures used for farming; all designed for male farmers. 	<ul style="list-style-type: none"> Construction of a temporary shelter for the on-week stay of men and women farmers in the plantations during harvest time 	<ul style="list-style-type: none"> Provision of infrastructures/ equipment/ machines that will ease lifting and carrying heavy load 	<ul style="list-style-type: none"> Provision of water supply source that is near to the plots/ plantations 	<ul style="list-style-type: none"> Provision of support system for women fisherfolk with young children 	<ul style="list-style-type: none"> Provision of water supply source that is near to the plots/ plantations 	<ul style="list-style-type: none"> Safer workplace and less incidence of work-related health problems for women Women access support mechanisms such as daycare. Organizations adopting gender-sensitive policies and practices supporting meaningful participation of women
	<ul style="list-style-type: none"> Government and private organization programs are often gender-blind; do not address gender issues and strategic needs of women. 	<ul style="list-style-type: none"> Provision of work kits for women farmers: boots, gloves, raincoats, hats Provision of tools that are designed to fit women’s physique e.g. smaller handles for bolos, shorter <i>piko</i>, <i>sadol</i>, <i>sundang</i> Identification and provision of support mechanisms and practices within the organization, community and LGU (e.g. access to daycare services, strengthening <i>bayanihan</i> or community spirit to assist vulnerable groups) 					<ul style="list-style-type: none"> LGU, BDS and FSP increased appreciation on gender-responsive programming. Improved skills on gender-responsive

		<ul style="list-style-type: none"> • Capacitate program developers and policymakers on gender-responsive programming • Capacity BDS and Financial Service providers on developing gender-responsive programs. • Development and/ or review and improvement of municipal GAD codes 	<p>planning and budget of LGUs.</p> <ul style="list-style-type: none"> • Increased GAD budget allocation and utilization for gender-responsive programs in identified value chains. • Improved planning, implementation and monitoring and evaluation of programs for women and men farmers.
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The aspired change, therefore, that is expected are put in place after interventions and gender empowerment strategies, include: women farmer-entrepreneurs enjoying greater autonomy, are free from the glass ceiling phenomenon, have greater decision making spaces, have wider integrative roles in the VC governance, and have the influence in shaping the enabling environment to meet future challenges.

The discourse in building resilient livelihoods can be brought further in terms of interventions that enable farmers to immediately recover from shocks --- whether natural, economic, or man-made shocks. Today's VC scenario of gender inequalities may not bring enhanced and sustained women's empowerment if interventions do not take a closer look at the woman's aspirations, her relations with other women and men at home, at work, within the value chain and in the community as well as with the enabling environment that will help her navigate her own chosen directions.

Table 19. Issues and concerns & Recommendations, by commodity and by stage of the value chain

The matrix below describes the issues and concerns of each commodity by stage of the value chain. In summary, female and male farmers across commodities have to contend with low production volumes, small size of farms, traditional production techniques, effects of climate change, poor quality of produce, lack of production and processing facilities, lack of transportation and hauling facilities, limited access to trainings and financial services, limited or no market.

A set of recommendations is offered to address these issues and concerns. Recommendations for the enabling players / stakeholders in support of the industries are also included.

Commodity	Stage of the Value Chain			
	Input Provision	Production	Processing	Marketing
Abaca	<ul style="list-style-type: none"> Improper use of fertilizers Only one variety being used, the native or "bisaya" 	<ul style="list-style-type: none"> Low production volumes Small size of abaca farms Traditional production techniques Not all farm households own the farming tools Succession concerns among the younger generations Effects of climate change Migration of male farmers in sugarcane plantation areas 	<ul style="list-style-type: none"> Poor quality of dried abaca fibers Lack of facilities that suit the needs in the small-scale farms (e.g. dryer, warehouse, and functional stripping machine) No further processing done to the abaca fibers 	<ul style="list-style-type: none"> High transportation and hauling costs from the supply sites (especially from upland areas) to the demand sites Low and unstable price of abaca fibers Monopoly of the buyer (usually male) who dictates the price Poor negotiation position and skills of either the male or female farmer Unclear and undeveloped markets and market links (limited buyers/traders in the town proper)
	Recommendations			
	<ul style="list-style-type: none"> Expansion of land areas devoted to abaca 	<ul style="list-style-type: none"> Trainings on: pest management and disease control, fertilizer application, production 	<ul style="list-style-type: none"> Provision of warehouse, drying facility, tents and makeshift shelters 	<ul style="list-style-type: none"> Lower transportation and hauling costs Identification of markets for abaca products

	<ul style="list-style-type: none"> • Sourcing of new varieties that is suited for the type of soil • Development of nurseries • Provision of farm tools 	<ul style="list-style-type: none"> • techniques, classification and grading • Protective gears for the female farm workers • Study on intercropping options 	<ul style="list-style-type: none"> • Demo training on the use of the stripping machine • Training on <i>pagkigi</i>, twining and knotting • Training on abaca-based handicraft for women 	<ul style="list-style-type: none"> • Training on record keeping and simple accounting with profit analysis • Training on marketing techniques
Herbs		<ul style="list-style-type: none"> • Lack of adequate water supply • Uncertainty of production volumes 	<ul style="list-style-type: none"> • Lack of drying facility • Maintaining product quality • No database on the size and nature of the markets • Lack of negotiation space in the market 	<ul style="list-style-type: none"> • No clear market for the dried herbs
	Recommendations			
	<ul style="list-style-type: none"> • Consider that each type of herb has a set of required inputs 	<ul style="list-style-type: none"> • Provision of adequate water supply • Consider land for expansion • Trainings on proper harvesting and handling techniques • Training on pest management and disease control 	<ul style="list-style-type: none"> • Trainings on drying methods • Provision of warehouse • Training on packaging and labeling 	<ul style="list-style-type: none"> • Forging of forward contracts • Conduct of market assessment • Development of product promotion strategies • Benchmarking visits to related industries

		<ul style="list-style-type: none"> • Provision of protective gears and farming tools 		
Cassava		<ul style="list-style-type: none"> • Pest infestation • Climate variability • It takes 10 – 12 months to generate income 	<ul style="list-style-type: none"> • Lack of post-harvest facilities • Lack of transportation and hauling facilities • Lack of warehouse 	<ul style="list-style-type: none"> • There is only one buyer of dried cassava • Limited markets
	Recommendations			
	<ul style="list-style-type: none"> • Consider new varieties of cassava suited to type of soil • Consider ways to lengthen the life of the <i>paka</i> • Determine appropriate intercrops for cassava 	<ul style="list-style-type: none"> • Provide protective gears and farming implements dove-tailed for male and female farmers • Training on pest control and disease management • Provision of carabaos • Farm mechanization for large farms • Crop insurance • Training on farming technologies • Training on sorting, classification and grading 	<ul style="list-style-type: none"> • Skills training with equipment provision • Provision of a dryer • Trainings on product development 	<ul style="list-style-type: none"> • Establishment of <i>bagsakan</i> center • Identification of new markets • Forging of contract farming agreements

Seaweeds		<ul style="list-style-type: none"> • Climate variability • Women’s double burden at home and in seaweeds production 		
	Recommendations			
		<ul style="list-style-type: none"> • Risk reduction measures such as the use of perimeter net; placing seaweeds at the bottom of the seas where water temperature is more stable and changing variety of planting materials • Enhancing women’s life skills, e.g. swimming • Support mechanism and practices for women such as access to daycare, implementation of self-help practices in the associations 	<ul style="list-style-type: none"> • Training on seaweeds processing 	<ul style="list-style-type: none"> • Identify markets

The enabling mechanisms and structures have to be in place in support of the interventions given to the value chain actors/players. The following are the recommendations:

- *Strengthen the farmers' organizations and women's livelihood association* – Since groups have been organized and registered with the appropriate government agencies (e.g. DOLE), sustaining it is the next big challenge. Farmer-members may need gender and entrepreneurial sensitization workshops. Inculcating the business spirit will be a necessary element in strengthening the organizations. After all, the both male and female farmers ask: what do I get from my membership?
- *Access to financing at low interest rate* -- Financing institutions are needed to provide the start-up capital. The financial assistance package must be dove-tailed to the needs of the farmers. Financial institutions which caters to the farmers, will have to design a financial assistance package that is synchronized with the technical assistance
- *Access to trainings* -- Training institutions have a lot to contribute in capacity building --- from skills trainings to trainings on entrepreneurship and business management, to product development, and the transfer of technologies in production, processing and marketing.
- *Study on: when are manual processes better than mechanized methods at each VC stage* -- Both male and female farmers are not closed to the idea of farm mechanization. However, their experience shows that the stripping machine did not help them as it did not address their need. They would want to understand in which VC stage will mechanization be best, and when will manual processes be best. Academic and research institutions may be able to help in this regard as well as in other farming technologies that will be transferred to the farmers.
- *Linkaging and networking* -- Relationships between and among VC players and enablers need to be strengthened in order to improve VC governance towards pro-poor growth. Chambers of commerce, cooperatives, industry groups, and businesses/investors can facilitate investment matching.
- *Cost-benefit analysis on the alternative uses of the land* -- At present, the farmers have established the best use of their lands in terms of incomes generated. Any change such as the shift to other crops as main income source, or the expansion of farms, must be convincing enough to the farmers as to its sustainability. Otherwise, when external assistance from NGOs and government exits, farmers may fall back to square one. When this happens, the return to the efforts from NGOs and government will be minimal.
- *Drafting of an Industry Development Plan in the LGU* with the corresponding budget is in order so that the emerging industries will be given that big push forward and the sustained support to keep it going as a source of income particularly for women farmers. The plans should be tested for its gender-responsiveness in order to make farming of specific commodities a driver for inclusive local economic growth. Components indicative of DRR and climate proofing will be worthwhile to include in the plan.

5.0 Annexes

5.1 Survey Questionnaire Form

Baseline Study for the project, “Typhoon Haiyan Reconstruction Assistance”

(Leyte, Antique and Northern Iloilo)

Survey

Section 1. Socio-Demographic Characteristics of Respondent

No.	Question	Answer	Filter
	What is your name?	Surname Given Name	
	Sex	Male Female	
	What is your age?		
	What is your civil status?	1 – Single 2 – Married 3 – Separated 4 – Widow/er 5 – Domestic partnership/Cohabitation	
	What is your household size?		
	Where is your location?	Brgy Municipality/City Province	
	What is the highest level of schooling that you have reached?	1 – Primary 2 – Secondary 3 – Vocational 4 – College/University	

Section 2. Economic Activities and Gender Roles

	Are you a farmer – producer or entrepreneur?	1 – Farmer – producer 2 – Entrepreneur	
	What is your position in the household enterprise?	1 - Lead 2 - Worker, paid 3 - Worker, unpaid	
	What product/good are you producing?	1 - Herbs 2 - Vegetable 3 - Seaweeds 4 - Abaca 5 – Cassava 6 – Other root crops 7 - Others 8 – Not applicable	
	What product/good are you selling?	1 - Herbs 2 - Vegetable 3 - Seaweeds 4 - Abaca 5 - Cassava 6 – Other root crops 7 - Others 8 – Not applicable	

	How do you divide the following economic tasks?	1 – Females do everything 2 – Usually females 3 – Shared equally by males and females or done together 4 – Usually males 5 – Males do everything 6 – Does not apply	
	Procurement of inputs or goods?		
	Manual labour in the farm?		
	Looking for creditors?		
	Selling the produce?		
	Making a loan to invest in the enterprise?		
	Paying debts?		
	Budgeting?		
	Marketing?		
	Negotiating with suppliers?		
	Setting the price or negotiating with buyers?		
	Dealing with officials (banks, market, government)		
	On a normal day, how many hours do you spend working for pay or for profit?		
	How do you divide the following household tasks?	1 – Females do everything 2 – Usually females 3 – Shared equally by males and females or done together 4 – Usually males 5 – Males do everything 6 – Does not apply	
	Washing clothes?		
	Repairing the house?		
	Buying food?		
	Preparing food?		
	Cleaning the house?		
	Paying bills?		
	Purchase of productive assets?		
	Purchase of household assets?		
	Caring for small children?		
	Caring for elderly household members?		
	Caring for sick household members?		
	On a normal day, how many hours do you spend on household maintenance/management?		
	Aside from the CARE-supported enterprise/organization, do you participate in other groups?	1 – Yes 2 – No	
	If yes, what type of group is it?	1 – Credit association/micro finance 2 – Informal savings group 3 – Religious group 4 – Government council or committee 5 – Government-sponsored group (ex. rural improvement club, agrarian reform beneficiary organization) 5 – Others (<i>specify</i> _____)	
	Have you ever been an officer or leader in any of these groups for the last three years?	1 – Yes 2 – No	

Section 3. Income and Access to Assets and Resources

	What is your monthly household income from salaries and wages from employment , including bonuses and cash allowances, in cash or in kind?		
	What is your monthly net household income from agricultural or entrepreneurial activities ?		
	What is your monthly household income from transfers (i.e. support from family/entity within the country or abroad, support received from the government including support from the Pantawid Pamilya Program, in cash or in kind)?		
	What is your monthly household income from other sources (i.e. pensions, dividends, rentals), in cash or in kind?		
	What is the monthly household total income from all sources (salaries and wages from employment, agricultural or entrepreneurial activities, transfers and other sources)?		
	What is the monthly per capita income (total income over household size)?		
	If paid worker in agricultural or entrepreneurial activities, how much is your daily wage?		

Access to and ownership of physical assets	Does anyone in your household currently have any (item)? 1 – Yes 2 – No	Do you personally own any of the item? 1 – Yes 2 – No	Who would you say can decide whether to sell, give away, mortgage or rent (item) most of the time? 1 – Females 2 – Usually females 3 – Shared equally by males and females or done together 4 – Usually males 5 – Males 6 – Does not apply
Business Assets:			
Agricultural land			
Large livestock			
Small livestock			
Fish pond or fishing equipment			
Farm equipment (non-mechanized: hand tools, animal-drawn plough)			
Farm equipment (mechanized: tractor, plough, power tiller, treadle pump)			
Nonfarm business equipment (sewing machine, computer)			
Household assets:			
Residential land			
House			

	Other structures			
	Refrigerator			
	Aircon			
	Washing machine			
	TV			
	Personal computer			
	Living room/sala set			
	Dining set			
	Radio			
	Audio/video player			
	Microwave oven			
	Cellphone			
	Jewelry			
	Other land not used for agricultural purposes			
	Motorbike/motorcycle			
	Car or truck			
	Other item (specify)			

Tenure	1- Own house and lot 2- Rented house or room, including lot 3- Own house but rented lot 4- Own house, rent-free lot with consent of owner 5- Own house, rent-free lot without consent of owner 6- Rent-free house and lot with consent of owner 7- Rent-free house and lot without consent of owner	
What is your tenurial status?		

Access to social services	Does anyone in your household currently have access to the following: 1 – Yes 2 – No	
Scholarship		
Day care/ECCD		
Supplemental feeding		
Subsidized rice		
PhilHealth		
Skills/livelihood training		
Housing		
Microcredit		
Self-employment assistance		
Pantawid Pamilyang Pilipino Program		
Other cash transfer programs		
Others (specify)		

Savings		
Do you or any member of your household currently have savings?	1 – Yes 2 – No	
If yes, what is the type of account that is under your name?	1 – Savings account in bank 2 – Cooperative/NGO/microfinance account 3 – Provident funds/pension account 4 – Other informal savings account	
What are you allocating your savings for?	1 – Regular household expenses	

		2 – Household assets 2 – Enterprise assets and capital 3 – Both household and enterprise expenses/assets	
	Loans		
	Do you or any member of your household currently have any outstanding loans?	1 – Yes 2 – No	
	If yes, who among the household members have outstanding loans?	1 – Self 2 – Partner/Spouse 3 – You and your spouse/partner 4 – Other HH members	
	If yes, who are the individuals or institutions you borrowed money from?	1 – Relative/family member 2 – Friend/individual 3 – Employer 4 – Private bank 5 – Government bank 6 – Credit cooperative 7 – Microfinance organization	
	What is the purpose of your loan?	1 – Regular household expenses 2 – Household assets 2 – Enterprise assets and capital 3 – Both household and enterprise expenses/assets	
	Are you yourself individually or jointly obligated to repay this money?	1 – Yes, individually 2 – Yes, jointly 3 – No, someone else is obligated to repay the loan	

Section 4. Gender Discrimination and Decision-Making Spaces

	Participation in public/private sphere, decision making Please tell me the extent to which you agree or disagree with each statement.	1 – Strongly disagree 2 – Disagree 3 – Neither agree nor disagree 4 – Agree 5 – Strongly agree	
	Women should be able to stand for election to all publicly elected bodies just like men.		
	Women should be leaders just like men.		
	Women should have a say in important decisions in the community.		
	The big household purchases should be made only by the men in the family.		
	If the wife is working outside the home, then the husband should help her with household chores.		
	Women solely decide on the number of children and family planning choices.		
	Women should consult their husbands concerning strategic business decisions and to take that advice regardless of its suitability.		
	When going to most public places, a woman should obtain the permission of her husband or the head of the household.		
	Decision-making role in farm production or enterprise Please tell who decides on the following:	1 – Females 2 – Usually females 3 – Shared equally by males and females or done together 4 – Usually males 5 – Males 6 – Does not apply	

	Deciding which products/services to produce or sell		
	Procurement of input or goods		
	Deciding whether to invest in the business (a machine, large tool, adding more stock to sell)		
	Deciding whether to take out a loan to invest in the business		
	Budgeting		
	Choice of crops to plant		
	Method of planting		
	Type of seeds to use		
	Timing of planting and harvesting		
	Hiring of labour		
	Whether to use fertilizer or how much to apply		
	Keep written records of farming activities		
	How to store crops after harvest		
	Negotiating with suppliers		
	Setting the price of goods or negotiating with buyers		
	Selling/marketing goods to customers		
	Deciding on how to use business profit		
	Dealing with officials (banks, market, government)		
	Attending meetings		

Section 5. Access to business development and financial services

	What are your enterprise needs that should be addressed?	Were these needs addressed? 1 – Yes 2 – No	
	Supply of inputs e.g planting materials		
	Clearing the farm		
	Labor		
	Financing		
	Training		
	Link to the market		
	Processing equipment		
	Warehouse		
	Others (specify)		

	What business development services are available?	Who are the service providers? 1 – Private sector 2 – NGO 3 – Academe 4 – Government 5 – Others (specify)	Were you able to access these services? 1 – Yes 2 – No	If no, why? 1 – Don't need 2 – Don't have info 3 – Not qualified 4 – Don't like provider 5 – Don't like product design/terms 6 – Others (specify)	How satisfied are you with the services availed/accessed? 1 – Very dissatisfied 2 – Dissatisfied 3 – Neutral 4 – Satisfied 5 – Very satisfied
	1 - Organizational management				
	2 - Market management				
	3 - Business development				
	4 - Technology				

	5 - Financial management				
	6 - Bookkeeping				
	7 - Others (<i>Specify _____</i>)				
	What financial services/products are available?	Who are the service providers? 1 – Bank 2 – Micro finance 3 – Credit cooperative 4 – Informal savings group 5 – Others (specify)	Were you able to access these services? 1 – Yes 2 – No	If no, why? 1 – Don't need 2 – Don't have info 3 – Not qualified 4 – Don't like provider 5 – Don't like product design/terms 6 – Others (specify)	How satisfied are you with the services availed/accessed? 1 – Very dissatisfied 2 – Dissatisfied 3 – Neutral 4 – Satisfied 5 – Very satisfied
	1 - Loans				
	2 - Savings				
	3 - Micro insurance				
	4 - Others (<i>Specify _____</i>)				

Section 6. Women's and Men's Participation in Sustainable and Resilient Economic Activities

	How many enterprise networks/linkages do you have at present? (ex. Financing institutions, marketing partners, suppliers, logistics and transport, membership in industry associations and government development councils)	1- None 2- 1 to 3 3- 3 to 5 4- More than 5	
	At which stages/processes of the value chain?	1- Input provision 2- Production 3- Processing 4- Marketing	
	Have you established market linkages?	1 – Yes 2 – No	
	If yes, who are these market players?	1 – Walk-in buyers 2 – Institutional buyers 3 – Retailers 4 – Wholesalers 5 – Others (Specify)	
	At what geographical level?	1 – Barangay 2 – Municipal 3 – Regional 4 – National	
	What risk reduction measures are implemented by farmer –producers and entrepreneurs?	1- Adoption of climate-smart farming technologies 2- Using build back safer techniques in houses and buildings 3- Safe location 4- Availment of micro credit, crop insurance or other livelihood protection mechanisms 5- Access to credit 6- Savings for business 7- Emergency preparedness, i.e. early warning systems, contingency plans 8- Others (<i>Specify _____</i>)	

5.2 Abaca Value Chain

Western Visayas ranks 7th in abaca production in the country. Antique, one of its provinces, has a 30.9% poverty incidence (PSA, 2012) with an annual per capita poverty threshold of P17,160¹³ (USD370). The towns of Culasi and Lauaan have poverty incidences of 37.23% and 42.08%, respectively (KALAHI-CIDSS, NCDDP).

Antique is the third abaca-producing province, supplying the demand of the cordage manufacturers. It has a total land area of 849.7 hectares that is planted to abaca, and which is farmed by around 1,187 farmers in seven municipalities (Table 2). The municipality of Barbaza produces the most for the period 2009-2013, followed by Culasi and Hamtic (Table 3). These have the widest area planted to abaca, and has the most number of farmers.

Table 20. Number of Abaca Farmers and Area Planted in Antique, by Municipality¹⁴

Province/ Municipality	2009 (in kgs)	2010 (in kgs)	2011 (in kgs)	2012 (in kgs)	2013 (in kgs)
Antique	23,070	35,529	89,723	142,563	113,257
Barbaza	12,450	17,720	44,968	65,760	52,696
Bugasong				51	4,481
Culasi	7,740	12,864	16,194	33,194	22,885
Hamtic	2,530	535	20,928	32,158	26,285
Pandan		4,410	6,380	8,081	6,910
Lauaan	350		683	1,518	
Patnongon			670	1,061	

¹³ National average per capita is Php19,252

¹⁴ Provincial Agricultural Office - Antique

Table 21. Volume of Abaca Production in Antique, by Municipality

Province/Municipality	Number of Farmers	Area Planted (in has)
Antique	1,187	849.70
Barbaza	295	280.57
Bugasong	22	40.15
Culasi	295	127.37
Hamtic	301	164.92
Pandan	78	55.08
Laua an	130	105.71
Patnongon	66	75.90

The productivity among small abaca farms at 168 kg/ha is much lower than the national average of 310 kg/ha. There are identified reasons for this: low priority given by farmers to abaca farming and processing because it is laborious and time-consuming, high cost of production (particularly, hauling of planting materials and fertilizers), inadequate farm mechanization, lack of access to financing, and that abaca processing is on a per-order basis, among others.

On the other hand, there are opportunities that are open for making abaca production a driver of economic growth. At the local level, traders' demand for abaca fibers of all classifications is higher than what the farmers can produce. In many instances, the local traders do not even require certain grade/quality of the abaca fibers. Nevertheless, the farmers are able to produce high quality (white and long) fibers.

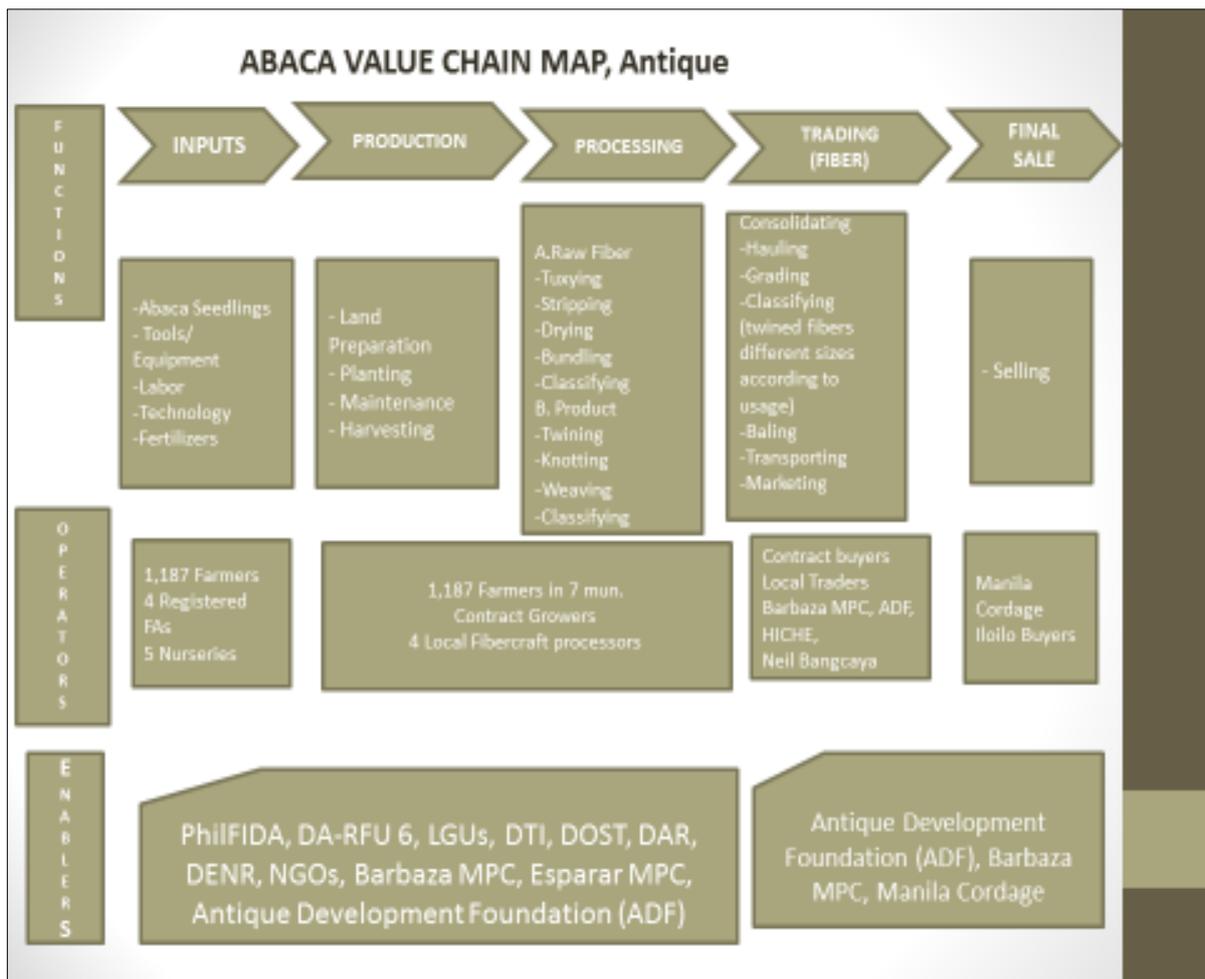
Inputs for expanding abaca production are available. There are established abaca nurseries in four municipalities in Antique which can provide abaca suckers and corms. There is technical support coming from various government agencies, as well as the provision of other inputs like fertilizer subsidy coming from the Department of Agriculture.

Gender Roles in Abaca Value Chain

CULASI, ANTIQUE

In Culasi, the abaca farms are not privately owned. Certificates of stewardship under the Integrated Social Forestry (ISF) Program of the government are issued to farmers, who are generally male. The areas of these farms range from 0.5 to 1.5 hectares per farmer. Usually, coconut trees are planted in the perimeter (boundaries), while banana, sweet potato, *gabi*, *palawan*, and other *kararuton* are intercrops. In some farms, there are coffee, rambutan and other fruit trees.

Figure 5. Abaca Value Chain Map, Antique



Reference: CARE, Value Chain Analysis of Abaca, Province of Antique (A powerpoint presentation)

Most of the day-to-day affairs in abaca farming are managed by the men, with the women helping out especially in activities that are considered light. For the men:

“OK lang kung tumulong; OK lang kung hindi.” (It is ok if women help; it is ok if they do not.)

But women often like to help voluntarily after doing their household chores. This is at around 7:00am in the morning when the children are already in school and the house is clean. For them, farm work will be faster if they help their husbands. Daughters are left at home so that there is someone who will prepare the meals by the time the couple arrives from the farm. Sons who are as young as 14 years old already help in the abaca farms. This means that women continue to be relegated to reproductive work and when there is extra time to do productive work, it is usually unpaid.

Farm Inputs

Suckers (*saha*) cost P5/pc on site, but there is an additional cost for hauling at P5/pc. In Brgy Flores, where most suckers come from, each sucker cost from P10/pc to P15/pc, including hauling in some instances. Brgy Alojipan and Brgy Magsaysay are approximately six kilometers from the highway, and Brgy Flores is a kilometer farther. These three areas are not accessible by transportation. Hence, goods and farm inputs are carried by a horse to/from the highway from/to the foot of the hill/mountain. These are then carried by men on their heads/shoulders uphill/downhill.

It takes three hours to carry the goods following a foot trail, for a distance of three kilometers. For heavy loads, such as the *lanot* (abaca fiber), men carry from 30 to 40 kilos, taking a rest at least six times along the way. Women carry up to 10 kilograms.

With regard to fertilizer, two sacks of urea are applied to a hectare. Each sack costs P1,000. For the labor inputs, the wage given is the same to both men and women for the same farm work. There is no wage discrimination. Labor is paid P150/day with lunch and snacks provided by the farm owner, and P200/day if there is no food provision in Brgy Flores. In the latter case, farm labor typically bring their own *baon* (*snack*). The rates, however, differ in the barangays, depending on the rate approved by the Barangay Council/Assembly. The rate is P200/day without meals in Brgy Magsaysay, and P150/day without meals in Brgy Alojipan. In all cases, *tuba* (coconut wine) is served at the end of the day, particularly when the wage given includes snacks and meals.

Other farm inputs are the tools used such as *pala* (spade/shovel), *itak*, *bolo*, *sadol* (knives and cutting tools of different sizes), and *piko* (pick). Both women and men use these tools which turn out to be heavy and disproportionately big for women physique. These tools are traditionally designed for men and blacksmiths are also men; and can be bought by women or men from the market.

Farm Activities

Men spend more time in the abaca farm than women do. When clearing the farm, hired labor is resorted to. Usually, those who are hired for clearing are given priority when hiring for the *manugigi* (harvesters). Sharing of the harvest is 1/3 for the owner and 2/3 for the labor.

When planting, men dig the holes while the women put the suckers in the holes and correspondingly cover it with sand. In some cases, women dig the holes, but men will review/redo what women do because holes made by the latter are not deep nor big enough for the suckers to grow best, based on the men's standards. Women who do not want their work to be reviewed would get instructions from the men. Instead of being supervised, women would instead compare the holes they dig with those that are done by the men. If holes are fairly comparable, these women feel that "standards" that were set by the men, who seem to know better techniques, were met.

Bracing (clearing the field from grasses and mounds) is mostly done by men while *pagtuksi* (stripping) is done by both men and women. The men provide the physical strength to carry the heavy abaca for stripping and *pagbandol* (binding into bundles the abaca fibers). *Pagkigi* (harvesting) is done by both sexes, too. Drying, however, is mostly done by the women. Fertilizer application is men's work, as well as hauling suckers, inputs, fibers, and farm implements.

Other tasks of the women include: looking for sucker sources, selling the abaca fiber, and looking for credit. Male children help in the farm when they have no classes. They work the way their fathers do. Daughters help their mothers. They also are responsible in preparing the food and bringing this to the farm.

LAUAAN, ANTIQUE

Farm sizes are generally small and owned in the name of male farmers, except in female-headed households. The abaca has intercrops of banana, bamboo, coconut, coffee, peanuts, corn, *dagmay* and root crops such as *sweet potato*, *palawan* and *cassava*. Rice farming is the main source of income in the area, followed by peanuts.

Pandagdag lang ang abaca. Kung walang wala na, saka namin tinitingnan ang abaca kung pwede na kaming magkigi. (Abaca farming is not a major source of income. It is only when there is really no more income source that we remember and look at our abaca plants and check which ones are ready for harvest.)

Being an alternative income source, abaca plants are not concentrated in one area and are sporadically located. This is the state in Brgys San Ramon and Guiamon which are accessible by a one-hour ride on *habalhabal* (single motorcycle). Likewise in Brgy Maybunga which is reachable after a two-hour walk from Brgy Guiamon.

Abaca farming was limited for domestic use such as for twining ropes to tie cattle in the farm, for making scarecrows, and for sewing dresses and underwear. There were no buyers of abaca then. In Brgy Maybunga, only the elders have the experience in abaca farming. Those in their 30ish have not seen *pagkigi*, since abaca waned in its use during the recent past. They did not sell abaca products. In Brgy Guiamon, only a few claim of experiencing abaca farming. However, in Brgy San Ramon, abaca is an alternative income source.

Matagal bago ka magkapera sa abaca. (It takes time to earn from abaca.)

Magkigi ka lang kung meron bibili. (One harvests abaca only when there is a buyer.)

Through CARE, however, the barangays are looking forward to embark on abaca farming. In Brgy Maybunga, this will be the first time that huge abaca plantation, to start in May, will happen. CARE will give financial and technical assistance to women's groups which have registered with DOLE.

Farm Inputs

Planting materials in the past were never sold. There was only one variety called *bisaya*. It remains the same today. The *saha* were sourced from Brgy Libacao, or from just within the barangay. A good time to plant the *saha* are during the rainy months. From January to April, when the weather is hot, it is difficult to grow abaca.

Farm tools used are similar as in the Culasi farms. These include *sadol* (hoe) for *pagbungkal* (digging), *pala* (shovel) to get the sucker, *binangon* (blunt bolo) for *brasing*, *bairan* (grindstone) and *bara* to dig holes. As to labor input, this seems not to have been a problem since abaca farming has not been a significant income source. In cases of hired labor (both male and female), the wage is P100/day with breakfast, lunch and snacks. Otherwise, it is P250/day without food provision. For some farm owners, the latter is a better option because it releases them from the stress of preparing and budgeting for food requirements of the hired labor. For others, the former is better because the family's meals can be taken from what has been prepared for the hired labor.

Fertilizer (urea) costs P1,000/sack. If it is brought to Brgy Maybunga, labor cost for hauling the fertilizer is P250/sack from Brgy Guiamon plus the actual transport cost (*habalhabal*) at P180/sack. Added to this is the fare of the male or female farmer, who brings the goods/inputs, at P180 per trip. Horses cannot bring the fertilizer to the farms because of the steepness of the mountain. The high cost of the input has discouraged farmers to apply fertilizer in their farms.

Farm Activities

Men use the hoe in clearing the fields (*paghawan*). They also do the actual land tilling, weeding and plowing. However, women do the selling. The volume is not large, hence, can be taken care by the wives. Farmers would harvest just enough that can tide them over the next harvest of rice or peanuts.

Women voluntarily help in the farm.

Malooy man ko sa akong bana kung mag-isa lang siya. (I pity my husband if he works alone)

Happy ako kasi madasig ang trabaho. Kaya ko naman mag-araro para makapag-aral lang ang mga bata. (I am happy to help because work becomes faster and easily done. I can do whatever farm work if only we can send our children to school.)

The motivation for the women to work does not necessarily stem from her physical strength to do farm work, but from the higher desire for her children's welfare. In most of the occasions, men repeat the work of the women (e.g. the holes that women dig) to ensure that the size is enough for growth of the *saha*. Women do not mind, nor do the men.

All hauling is done by the men, particularly in instances when climbing the mountain, crossing rivers, and/or walking on trails are concerned, as in the case of Brgy Maybunga.

Social Cohesion

Among the various indicators of social cohesion, three came out as displayed by both women and men in abaca farms. These are: pro-social behavior, trust, and meaningful participation in community affairs.

CULASI, ANTIQUE

There is no wage discrimination in the abaca farms although there is gendered division of labor. Society has prepared boys to dig holes, and for girls to cook meals for the laborers. Women's help in the farm is welcomed because they make work lighter and more lively. There will usually be an exchange of jokes as to who performs better in the field: men or women. Who digs holes best? Is the quality of women's work comparable to that of men? This exchange of jokes serves as a motivation for everyone to do his best. Farmers claim that work is enjoyable when both men and women work together since lively conversations exist.

Pro-social behavior and trust

Pigado gid kami. (We are really very poor.)

In this situation, farmers help each other in farm work so that the direct cost of abaca production is reduced. Five to ten men agree to form a *hil-o*. From Monday to Friday, they work for free in each other's farms on a rotation basis. Everyone puts his trust that the members will work in all the members' farms, with the same vigor and energy as he does in his own farm. Women farmers seem to be left out in the formation and organization of the *hil-o*. Obviously, they do not become members.

The *hil-o* is very considerate of its members. If a member is absent, his wife can substitute for him (though this depends on the type of work of the day). While the wife's work cannot compensate for the husband's work, the *hil-o* understands, and assigns the woman to lighter farm work. The permission from the *hil-o* leader is sought for matters related to absences and substitutes.

During the *hil-o*, the farm owner provides the food and the drinks for all the *hil-o* members who come to help harvest or plant or strip the abaca into fibers. There may be times, however, when the farm owner is really too cash-strapped that the *hil-o* members are requested to bring their own food provision. Everybody obliges.

Conflicts, however, may arise in the *hil-o*. Examples include the following: (1) when one member is absent from farm work without a substitute or without sending a word about his absence; (2) when a member is perceived to work lazily in others' farms; (3) when member X perceives that member Y's

work efforts in his farm is far less than the efforts that X exerted when he worked in Y's farm at an earlier schedule.

The conflicts are easily resolved. It is an unwritten rule that the erring member is blacklisted in the *hil-o*, based on a group consensus. In a small farming community, the word easily goes around such that the same member will find difficulty in being accepted to other *hil-o*. In some cases, the erring member will voluntarily leave the *hil-o*.

The *hil-o* similarly has a way of checking on the performance of each members. Based on group decision, the *ligoy sa grupo* (one who does not work as hard as the other) is informed by the *hil-o* leader that he will be replaced by a newcomer who has pledged to help the *hil-o*.

Cooperation as a pro-social behavior is also manifested in the giving of suckers to others.

Para magka abaca din sila. (So that they can start an abaca plantation, too.)

However, to instill a sense of ownership and giving importance to the worth of the *saha*, one is not given everything that he needs.

"Bakit ibigay ang saha kung sa umpisa ay binili ko ang saha." (Why will I give suckers for free when at the beginning, I bought suckers for my farm.)

A 50% discount on the price of a sucker is offered to a relative. Or if the latter needs 20 pcs of suckers only, then this is given to him. If he needs 50 pcs, it is still given for free but the receiver will have to shoulder the hauling cost.

Meaningful Participation

Both men and women farmers participate in community decision making, particularly those called by the Barangay Captain. They are consulted on matters affecting them as farmers and as residents in the community. Decisions on the *taripa* (fixed rate) for daily wage is made during barangay assemblies. Conflicts and misunderstanding are easily resolved at the barangay level. Moreover, other concerns are discussed. This includes how to discourage the men from going to Negros as *sakadas*, hence, leaving the abaca farms behind for long months. Consequently, they also talk about how to address the lack of labor should harvest/planting time come and the husbands are still in Negros.

There are informal neighborhood groups which serve as avenues for these concerns, too. They talk about the schedule for the *hil-o*, the prospect of expanding stewardship, and the market.

LAUAAN, ANTIQUE

There is generally no paid farm labor in Lauaan since abaca farming has not been a significant livelihood. Everything is family labor. Hired labor happens for peanut and rice production.

Pro-social Behavior and Trust

Dagyaw (bayanihan or self-help) exists particularly during planting and harvest seasons in rice and peanut farms. It is also the means used when transferring a house or cleaning the barangay roads and surroundings. It is observed that *dagyaw* in abaca farms is limited to family and relatives only.

Cooperation revolves around the family only. The pattern is expected since the farms are not big so as to require a large workforce. Moreover, farmers do not expect help from others because “*pigado din sila*” (That is, they are also cash-strapped and they are finding it hard to make both ends meet).

In cases when the abaca farm is located in the mountains (and is reached only after a 2-hour walk uphill), the men would dig a hole in the riverside where the suckers can be placed until it is time to bring these up the mountain for planting.

*Mahirap kung dalhin ang saha sa bundok kasi mainit doon, at tiyak na mamamatay ang saha.
(It is not advisable to bring the suckers up the mountain where it is hot; suckers will wilt/die.)*

The women help in arranging the suckers in the hole, making sure the suckers stay healthy until planting time. By then, the men will haul the suckers to the mountains.

With the presence of CARE, abaca farming is now being given a big push. This May, more abaca suckers will be planted in the identified barangays. The farmers trust that their incomes will be augmented from abaca. They are excited about participating in trainings and technical assistance that will come their way.

Women’s groups have been recently organized and registered with DOLE in November/December last year. There are cluster level associations such as the Baylan, Masadya, Ratanela, Triple L, and Kalabasa. The Federation President, Ms Marissa Fermin, shows active engagement with government and non-government organizations who come to help improve their livelihood options.

Meaningful Participation

There is no farmers’ association. Only few have abaca plants that are used as sources of income. Harvests are done on a small-scale only --- just enough for family labor to take (without external help).

Amat-amat ang pagkigi at pagbenta. (We harvest and sell little by little.)

Abaca farming is not a community affair, nor a locus of community participation. However, there are structures in the barangay such as the *Lupon* which provides an avenue for residents to talk and be

counted. It is a mechanism to maintain peace and order in the barangay. For example, in Brgy San Ramon, a fine of P1,000 is imposed on someone who goes around shouting for no reason at all; or a fine of P500 for every gun shot fired by anyone.

The *Lupon* also settles problems between farmers such as instances when one's cow destroys or eats the peanuts planted by a neighbor. Or, when there are questions about farm lot boundaries.

Access to Financial and Business Development Services

The abaca farmers' need for financial and technical assistance is observed to depend on the current level of importance that they attach to abaca as a source of income. In Culasi, where there are more players in the entire value chain, the business development service concerns are different than in Lauaan where abaca farming is only re-starting to be given attention to.

CULASI, ANTIQUE

During planting season, both male and female farmers do not see the need for financing. The *saha* is mostly taken from suckers of existing abaca plants. If ever the farmer needs more, there are times that he can ask from a relative, or he/she does not plant anymore since the market for abaca is not attractive anyway. The shortage in *saha* is likewise not experienced since farm lots are not big and planting abaca is made as an intercrop or only as boundaries between farm lots.

Labor cost is minimal. It is the family labor that plants and harvests the abaca. The *hil-o* is resorted to when the area is larger. Or labor is paid in kind, that is, 2/3 share of the harvest. Other inputs such as fertilizer is also minimal since its application is not a priority.

In cases when financing is needed, the wife is sent by her husband-farmer to borrow money from the abaca only buyer a week before harvest, without interest. A maximum cash of P1,000.00 is available for lending per farmer. The latter can also get grocery items on credit from the buyer's variety store. For these terms, the farmer is required to sell his harvest to the abaca buyer. Depending on the quality of the abaca fiber, the prices range from P35/kilo to P50/kilo.

Both male and female farmers claim that they have not attended any training related to abaca farming. The females have even lesser opportunities since trainings are usually related to farm work which the men do, and that trainings are designed with the men in mind. There seems to be no conscious effort for a gender-balanced representation in these trainings.

Farms have been producing the same *lanot* (abaca fiber) that forefathers have produced.

LAUAAN, ANTIQUE

Farmers (both sexes) generally do not have debts. They make do with whatever their own domestic resources, and the labor that is provided by the family.

Ayaw naming mangutang. Walang kasarigan na ibayad. (We do not want to borrow money because we do not have any guarantee that we can pay.)

If ever there is a need to borrow money, it is to buy fertilizers for rice and corn farms. For a P1,000.00 loan, the borrower will have to pay P1,200.00 upon harvest. Fertilizer for the abaca is deemed to be unnecessary. Farm inputs are not bought. The *saha* comes from one's own abaca farm. It is the same variety since the time the farmer remembers. The tools are home-made, or borrowed from the neighbor. For the labor, it is family labor that is non-monetized which operates the farms. The *dagyaw* helps minimize direct costs, not only for abaca farming but for rice and peanut farming as well. Farmers help each other in the fields, the *bayanihan* way.

Technical assistance for abaca farmers is lacking. Trainings range from very rare to nothing. Some farmers seem not to mind this inadequacy since they believe that what they learned from their grandparents will suffice the current state of abaca farming. Farms have been producing the same *lanot* (abaca fiber) that forefathers have produced. The women-farmers from Brgy Guiamon, however, reported that they had a skills training last November 2015 on handicrafts. This was conducted by the Provincial Agriculturist's Office. After the training, however, they still have to figure out what is next.

Knowledge, Skills and Practices in Business Operations

For both Culasi and Lauaan, abaca farming is traditional. That is, it uses the same inputs, technologies and practices, as well as it produces the same low volumes for the same domestic markets the way it had been since their forefathers' time.

Abaca farming is not run like a business. There is no record keeping nor do farmers put value to self-owned and self-employed resources of the family labor that works in the abaca farms. Direct costs are kept to its minimum by resorting to mechanisms such as the *hil-o* and *dagyaw* which are self-help initiatives. Moreover, the social cohesion among neighbors eases the financial burden in abaca farming such as the giving of *saha* and/or of not expecting monetary help from others because everyone understands that each one is financially hard-up, too.

Other practices, knowledge and skills of abaca farmers are listed below.

CULASI, ANTIQUE

There is inadequate know-how among abaca farmers on the scientific ways of farming. They, too, have practices which do not contribute to higher productivity.

Male and female farmers do not know other varieties of abaca. They call the abaca variety that they plant as *bisaya*, to mean native to the area. They would want to know if there are other varieties suited to their type of soil, such that they will increase production.

Male and female farmers do not practice sorting and classification of fibers. Farmers are primarily concerned about the quantity of abaca fibers produced. Some would intentionally sell fibers which are not completely dried so that these weigh more. However, the price they get is low and it turns out that the fibers classified as 3rd class.

Male and female farmers do not know proper pest control. There is *tamasok* (worm) and *buk-an* which damage the abaca. What the farmers do is simply remove/cut the damaged part of the abaca. Moreover, farmers whose plants are affected by these do not warn the owners of neighboring farmlots. Hence, the spread of *tamasok* and *buk-an* becomes faster.

Farmers are exposed to hazards. Men and women farmers go to the abaca plantation during harvest time for a week or until the fibers are ready for sale, leaving their children alone in their homes in the lowlands. The daughters take care of preparing the meals of her siblings, and she keeps the house.

In the mountains, the farmers stay in make-shift *papag* (shelter) and they are exposed to insect bites and the weather. They bring their food and water provision for the duration. Many times, they borrow money from the buyer so that they can buy for these provisions and leave a portion with their children at home.

Male farmers go to *sacadas* in Negros. Men in the barangay go to Negros as *sacadas*. Usually, they do not know when they will be back but surely, it takes months. When it is harvest time in the abaca farms and the men have not returned yet, the women take over with the help of other men from other barangays who come as hired labor. Migration to the *sacadas* is not open to women farmers as they have to take care of the family/children who are left behind.

Male farmers prefer manual over stripping machines. There is a stripping machine in the barangays but this is not used because it is too heavy to carry to where the abaca plantation is. In Brgy Flores, abaca production is high, yet the stripping machine is not used for the following reasons: (1) high wastage of the fibers since the farmers are not trained on its use; (2) abaca plantation is fragmented; (3) farms are located far from each other; (4) small farm sizes. The question is: where will the stripping machine be located? Moreover, the fuel is costly.

Tao nga, camote lang kinakain kasi walang pera. (If farmers eat camote because they have no money, will there be a budget for gasoline?)

Women are the ones who look for creditors. The women manage the purse and does the budgeting. She is also the one who looks for creditors. Both husband and wife agree that it is a woman's task.

However, it is the male farmer who finally decides on the utilization of the money. The strong patriarchal system in rural agricultural communities has the strong influence on this practice.

It is the women who attend meetings and seminars. The men have better use of their time than to attend whole-day meetings. If they are not in their abaca farms, they are somewhere else offering their labor services for hire for P150/day. This option is not open to women; they cannot be in paid work while the men attend meetings.

In the first case, it is noted that once women are home, the men ask their wives what transpired during the meeting. The technology/knowledge is, thus, transferred from the woman to the man. There are other reasons why men are less likely to attend meetings and trainings:

Ang lalaki ay hindi nakapagtapos ng pag-aaral (The men did not finish school.)

Ayaw o mahiya mag-workshop ang lalaki (The men do not like or are shy to participate in workshops)

Takot tanungin (The men are afraid that they might be asked during the meeting/seminar)

Sa bahay lang naman ang babae. (The women are just at home, anyway)

LAUAAN, ANTIQUE

The situation in Lauaan is not far different from Culasi, except that horses are used in hauling and carrying abaca fibers downhill and inputs (e.g. suckers and fertilizers) uphill. This is particularly true in Brgy Maybunga.

Male and female farmers have their own traditional ways. Abaca is not planted in the rice fields, otherwise, the latter will not grow well. This further brings the unimportance of abaca as source of income. Should they plant abaca, they do it near the river.

Stripping machines are least used (or not used) by both male and female farmers. A stripping machine is available in the barangays. However, the utilization range from rarely used to non-used as in the cases of Brgys San Ramon and Guiamon, and Brgy Maybunga, respectively. Although the abaca fiber produced from the stripping machine is softer than those done manually, the male farmers still prefer the latter because they can control the process according to what is physically possible. It is usually the men who use the machine which are heavy and not designed/structured to fit the small physique of the woman-farmer.

Farmers do not know the technology of fertilizer application. The male farmers showed different practices: (1) apply fertilizer repeatedly when the abaca seem to be wilting; (2) in July, when it is rainy, apply fertilizer; (3) when the *saha* has three leaves already, that is a good time to apply fertilizer; (4) just any time because the farmer is not sure when. In Brgy. Maybunga, male farmers observe that despite not using fertilizer, the abaca grow and multiply anyway. The female farmers are not hands-on in fertilizer application.

Male and female farmers do not know pest management and control. When abaca plants wilt and die, some farmers believe it is simply because the plant is old. On the other hand, there are farmers who reported of *tumasok* in their abaca farms. They believe that cleaning the surroundings is the answer.

Couples share in the decision making regarding abaca farming. Both men and women farmers reported that decisions at home and in the farm is a shared space for both sexes. They decide on the schedule for planting/harvesting, on the use of their money, on the intercrops per season, among others.

Women are exposed to hazards in the field. Insects such as *putakte*, *putyukan*, *himumuong*, and *talimbabaga* as well as snakes are in the farms. Moreover, there are stones in the planting sites, and/or is slippery when it rains. Women have no boots nor gloves and hats to protect themselves. They wear long sleeved blouses/shirts and long pants for their protection. For blisters, wounds and backache, the women use herbal balm and ointment.

Women does the marketing. Stripping is mostly done by the men because the abaca stalks are heavy and stripping needs the physical strength of the men. However, once the fibers are dried and bundled (which are tasks done by both men and women), it is the woman who brings the product to the buyer/trader. She is willing to wait at the buying station until her abaca fibers get weighed, graded, sorted, and finally she gets paid. The men do not have the patience to wait and spend hours at the buying/trading station. Moreover, it is the woman who goes to the market, spends the earnings for family grocery/school supplies and for farm inputs.

Issues and Concerns in Building Resilient Livelihoods

Farming face risks which keep farm production low, and markets small and limited. In both cases, risk reduction measures and negotiation skills are important but these seem to be unnecessary in a sector where the value chain is not sector and/or where farmers are captive suppliers of abaca fibers to traders. The situation is the same for Culasi and Lauaan.

CULASI and LAUAAN, ANTIQUE

High transportation and hauling costs. This discourages both male and female farmers to focus on abaca farming. After a year of waiting for the abaca to mature and be ready for harvest, the farmer needs to bring the abaca fibers to the market. It is common to observe that there is a surplus of fibers

in the abaca farms and production sites, on one hand, but a shortage of the product in the market (lowland), on the other hand. The weak and missing link is the transportation and hauling of the fibers from the supply to the demand sites.

Low and unstable price of abaca fibers. The monopolist (male buyer of abaca fibers) dictates the price of the abaca, and this is possible for the following reasons: (1) the farmer does not sort nor classify the abaca fibers; (2) poor quality of dried abaca fibers; (3) it is the buyer who determines the grade of the abaca fibers; (4) poor negotiation position and skills of either the male or female farmer who brings the goods to the monopolist.

Poor negotiation position and skills of both male and female farmers. There is practically no space for the farmer to negotiate on various aspects due to: limited traders/buyers; the farmer gets a cash advance from this buyer to defray costs in harvesting; farm labor cost is fixed; limited sellers of fertilizers who can make prices change every so often; transportation and hauling costs are fixed through a barangay assembly; product quality is poor and ungraded; and the farmer does not have the skill and guts to negotiate. Nevertheless, it is observed that women have more patience in the negotiation table.

Low production volumes. Since abaca is not a major crop, its continued relegation to something that is thought of only when the primary source of income falls short of cash, has further contributed to low production volumes. Other reasons are the small size of abaca farms, improper use of fertilizers, traditional production techniques, and lack of facilities that suit the needs in the small-scale farms (e.g. dryer, warehouse, and functional stripping machine)

Succession concerns. It is observed that the younger generation do not know *pagkigi*. They are either in-school or they are farming alternative crops which bring more incomes for the family while at the same time are less laborious.

Unclear and undeveloped markets and market links. There is only one market that farmers see: the limited choice of buyers in the town proper. Moreover, there is only one product that they sell since there is no further processing that is done to the abaca fibers. In some barangays, harvesting is done only upon orders, or when there are cash shortages in the family coffers. The male farmer decides when to bring the goods to the buyer, and the wife is expected to agree.

Effects of climate change. The negative impact of climate change is felt by the abaca farmers and workers: (1) When landslides happen (such as in Brgy San Ramon, Lauaan), the product cannot be brought to the market. (2) When it suddenly rains, drying the abaca is affected which further translates into poor quality of the abaca fibers. (3) When it rains for a number of days, it means that the male farmer and his wife have to stay longer in the abaca farms, hence, raising the cost of production; (4) when it is hot, the *saha* cannot be planted nor even delivered up the mountains where these are to be planted; (5) the farm becomes more slippery, hence, dangerous to the abaca farmers.

Strengthening the Value Chain

Strengthening the value chain for abaca requires the actors to be open to change, and for the enablers to undertake interventions that define and support the roles of the various stakeholders.

Input Provision

- *Expansion of land areas devoted to abaca* --- The male farmers in Culasi have made known their interest to expand their abaca farms, and to which their wives agree. There will be no additional cost for land rental since they have certificates of stewardship from the government. For Lauaan, land areas may be vast but many of the farmers have not been into abaca farming as a significant income source. In Brgy Maybunga, farmers are not planting abaca for commercial use but only for making ropes for household use.
- *Lower transportation and hauling costs* -- Alternative modes will have to be studied on how transportation and hauling costs will be reduced vis-à-vis the specific location of the abaca plantation. The case of Lauaan will need more attention since the barangays are far from the highway. Brgy Maybunga is reachable only after 2 hours of walking and an hour of *habalhabal* ride.
- *Sourcing of new varieties that is suited for the type of soil* -- It has been the only variety since the farmers started planting abaca (the “native” or “bisaya”). However, the soil types seem to vary across the barangays. It is more stony in Lauaan.
- *Development of nurseries* -- Together with the expansion of farm lands and newer varieties of abaca, nurseries will have to be developed for the purpose.
- *Provision of farm tools e.g., shovel, bolo, itak* -- Not all farm households own the farming tools used for abaca farming. In Lauaan, around 30% do not own the tools. They borrow from neighbors when the latter do not use their tools in the farms. The former just wait when the tools will be available, and can use them only until the owner needs it. *Sadol* costs from P250 to P500, depending on whether it is “local or original;” *pala* costs P500; *itak/binangon* costs up to P500; and *bairan* costs P100. There is also the *bara* and the *piko* which can be homemade or bought in the market.

Production

- *Trainings on: pest management and disease control, fertilizer application, production techniques, classification and grading* -- Capacity building is very crucial. Most farmers (both

Ba

sexes) feel that they need trainings but there were few farmers (in Lauaan) who believe that they do not need trainings anymore because they have been into abaca farming for so long. What is common among farmers is the observation that abaca is a resilient crop. When it is uprooted by a typhoon, it easily produces suckers. When there is a landslide, it is not easily toppled down but simply “slides” downhill. In Lauaan, farmers observe that suckers are not eaten by rats, but peanut seedlings are eaten.

- *Protective gears for the female farm workers* -- Gloves, raincoats, hats and boots are needed by the women farmers. The men, however, are not keen on the boots because they work better with barefoot.
- *Discourage the men to work for sacadas* -- When the men go to the *sacadas* in Negros, there are very few left to harvest the abaca. The cost of hired labor in the abaca farms is observed to be greater than the incomes that the men bring when they return home. Farmers report that before leaving for Negros, the men have to cash advance because they need to leave an amount for their families’ upkeep while they are away. Once in the *sacadas*, they get their food, toiletries, and other needs from the store on credit. Sometimes they do not even know the prices of these goods, and by the time they are about to go home (about 4 to 6 months hence), they are billed an amount --- the *suma heneral* -- which they cannot complain about but pay.
- *Study on intercropping options* -- In order to get the most per unit of land area, a study on the best intercropping scenario vis-à-vis the contours and characteristics of the soil, as well as the existing practice of the farmers is in order. If there is going to be a change, then the farmers’ psych will have to be inputted. In Lauaan, peanut is an important commodity because they can generate income very quickly as compared to abaca whose market is not clear to them.

Processing

- *Warehouse* -- Particularly in Culasi, both male and female farmers would like to prioritize the provision of a warehouse. They suggest solar-powered lamps to enable them to continue with *pagkigi* even at night.
- *Drying facility* – This facility will improve the quality of the abaca fibers, hence, command a higher price in the market.
- *Provision of tents and makeshift shelter* – When *pagkigi* starts, farmers (husband and wife) stay in the field for a week or until the abaca fibers are dried, bundled, and are ready for delivery to the buyer in town. *Pagkigi* is done in open field, exposing the farmers to the elements of the weather all the time.

- *Demo-training on the use of stripping machine* -- While stripping machines have been made available in the barangays, these have been slightly used (or unused in some cases) because the farmers do not know how to use it properly. Fibers are torn. It is also inconvenient for the farmer who is used to manual methods of stripping. Moreover, the question of where to locate the machine is critical. Abaca farms are small, fragmented, and far from each other. Male and female farmers report that the stripping machine is too heavy to be brought to the farmlands uphill. It is more practical for them to do manual stripping in their respective farms and bring the dried abaca fibers downhill when it is ready for sale, than to bring the abaca for stripping downhill where the machine is located and do the *pagkigi* there.
- *Training on pagkigi, twining and knotting* -- In Lauaan, many of the young farmers do not know *pagkigi* since abaca farming has waned in its economic importance for a long time now. Twining and knotting, on the other hand, is a felt need of all the abaca farmers since they would want to add value to their abaca products.
- *Training on abaca-based handicraft* – The women farmers expressed their desire to learn handicraft making from abaca. This will make their time more productive while waiting for the abaca to grow after the planting season.

Trading and Marketing

- *Lower transportation and hauling cost* -- In a situation where bringing the product to and from the farm is very costly, farmers will expectedly not be enticed to be serious about expanding abaca farms. Improving road networks must be looked into as priority.
- *Encouraging more buyers/investors* – Since there is a monopoly in the market for abaca fibers, either male or female farmers do not have any negotiation space. They are captive suppliers to the trader who is the source of financial assistance.
- *Identification of markets for abaca products* – The market has to be identified and better for forward contracts to be forged so that the farmers will have a regular income from abaca farms. Otherwise, without a sure market, farmers will go back to peanuts and rice and cash crops. The farmers need regular and sustained source of income for everyday provisions.
- *Training on record keeping and simple accounting with profit analysis* -- There is no record keeping of farming operations, which then throws doubt as to whether there is really profit or not. For one thing, self-employed and self-owned resources are not monetized, hence, does not go into the costing of the product.

- *Training on marketing techniques* -- Lack in self-confidence to negotiate in the market, lack in information about alternative markets, and the lack of knowledge in marketing and linking with market channels all point to the situation where farmers cannot get best market deals.

For the enabling mechanisms and structures, these have to be in place in support of the interventions given to the value chain actors/players.

- *Strengthen the farmers' organizations and women's livelihood association* – Since groups have been organized and registered with the appropriate government agencies (e.g. DOLE), sustaining it is the next big challenge. Farmer-members may need gender and entrepreneurial sensitization workshops. Inculcating the business spirit will be a necessary element in strengthening the organizations. After all, both male and female farmers ask: what do I get from my membership?
- *Access to financing at low interest rate* -- The financial assistance package must be dove-tailed to the needs of the abaca farmers. They may not need millions but small amounts to start with. Abaca farmers are used to the practice of not falling into debt because they know that they cannot pay (*Pigado gid*. Read as: really financially hard-up.)
- *Study on: when are manual processes better than mechanized methods at each VC stage* -- Both male and female farmers are not closed to the idea of farm mechanization. However, their experience shows that the stripping machine did not help them as it did not address their need. They would want to understand in which VC stage will mechanization be best, and when will manual processes be best. Academic institutions may be able to help in this regard.
- *Linkaging and networking* -- Relationships between and among VC players and enablers need to be strengthened in order to improve VC governance towards pro-poor growth. Chambers of commerce, cooperatives, and business/investors can facilitate investment matching.
- *Cost-benefit analysis on the alternative uses of the land* -- At present, the farmers have established the best use of their lands in terms of incomes generated. Any change such as the shift to abaca farming as main income source, or the expansion of abaca farms, must be convincing enough to the farmers as to its sustainability. Otherwise, when external assistance from NGOs and government exits, farmers may fall back to square one. When this happens, the return to the efforts from NGOs and government will be minimal.
- *Drafting of an Abaca Development Plan in the LGU* – The MAO of Culasi observes that there is capability building and technical assistance to farmers of rice, corn, legumes and vegetables, but none specifically for abaca. There is likewise a livelihood project for bamboo craft and *taro/palawan* chips making. In all these cases, there is no specific program that is dove-tailed for female abaca farmers.

The LGU can also help in the proper implementation of the National Social Forestry law in which stewardship must be explained for farmers to understand (e.g. prohibition of steep slope cultivation). Finally, establishing a database is important.

It may be noted that ADF is currently providing technical assistance in organizational and financial matters, as well as in marketing. Seminars on Citizens-led monitoring in program and governance, DRR management, and the trainings on product development are well-liked by farmers. The women are more patient in attending these capacity building initiatives. In their respective organizations, it is the women who are more prudent in managing project funds. The access to various programs which are observably generic in nature, happen to cater to male farmers. That is, there are no specific programs designed for women only that will address women’s practical and strategic gender needs.

5.3 Cassava Value Chain

The Agri Pinoy Corn program of the Department of Agriculture (DA) aims to increase the production of quality corn and cassava for human consumption, feeds and industrial uses, and to boost the income of corn and cassava farmers. Specifically for cassava, the DA has embarked on programs such as the establishment of cassava value chain, linking cassava producers to traders/buyers/users, and the promotion of cassava for food and small business enterprise, among others.

The Fatima Multipurpose Cooperative is one lead firm in the cassava value chain that operates particularly in the northwestern and northern parts of Leyte. It has branches in Palompon, Barugo, Naval and Calubian. FMPC is a consolidator with 7362 members. It is also a processor (specifically chipping, drying, granulating). In the Calubian branch, three of the eight CARE municipalities that it serves are Carigara, Jaro and Calubian. The farmers’ association in these areas are listed below.

Table 22. Member-Farmers’ Association of Fatima Multipurpose Cooperative (study areas)

Name of Association	Location	Number of members			Role in the Value Chain
		Female	Male	Total	
Airport Farmers Asso	Calubian	5	37	42	Producer; Processor (chipping and drying)
Jubay Farmers Asso	Calubian	15	16	31	
Cabatuan Farmers Asso	Calubian			40	
Igang Farmers Asso	Calubian	23	22	45	
Cantonghao Farmers Asso	Calubian	7	21	28	
Taglawigan Farmers Asso	Calubian	5	24	29	
Catoogan Farmers Asso	Calubian	14	48	62	
Integrated Farmers Asso of Hiagsam	Jaro	15	19	34	
Tigbao Farmers Asso	Carigara	9	19	28	
Tinaguban Farmers Asso	Carigara	1	27	28	

Reference: MAO Calubian

The farmers associations are generally male-dominated except in Jubay and Igang of Calubian where there is a gender balance of membership.

A closer look into the gender-disaggregated data that is provided by the MAO-Calubian shows that there are a number of farmers association where females outnumber the males. Reasons include: (a) female-headed households; (b) more women are active in farmers associations; and (c) the wives are the registered members, as agreed by the couple, because it is the woman who attends trainings and meetings anyway. She has the time, the husband has none.

Table 23. Farmers Associations Engaged in Cassava Production, Calubian

Name of Farmers Association	No. of Farmers		Total
	Female	Male	
1. Airport Farmers Association	5	37	42
2. Jubay Farmers Association	15	16	31
3. Taglawigan Farmers Association	5	24	29
4. Casiongan Farmers Association	4	18	22
5. Igang Farmers Association	23	22	45
6. Tagharigue Farmers Association	9	26	35
7. Cantonghao Farmers Association	7	21	28
8. Pales Farmers Association	8	20	28
9. Ul-og Multi-crop Farmers Association	6	19	25
10. Samahan ng mga Magsasaka ng Caneha	3	22	25
11. Tuburan Farmers Association	10	10	25
12. Cabradilla Farmers Association	4	4	28
Total	99	99	363

Reference: MAO Calubian

Table 24. Farmers Associations Engaged in Cassava Production, Jaro

Name of Farmers Organization	No. of Farmers		Total
	Female	Male	
1. Mag-aso Integrated Farmers Association	2	20	22
2. Integrated Farmers Association of Hiagsam	15	19	34
3. Bias Zabala Integrated Farmers Association	1	25	26
4. Daro Integrated Farmers Association	5	35	40
5. Malobago Integrated Farmers Association	15	13	28
Total	38	112	150

Reference: MAO Jaro

Table 25. Farmers Associations Engaged in Cassava Production, Carigara

Name of Farmers Organization	No. of Farmers		TOTAL
	Female	Male	
1. Upper Paragum	23	10	33
2. Bagong Lipunan	9	9	18

Ba

3. Canlampay-Libo	14	12	26
4. PFA	9	6	15
5. MIFA	21	10	31
6. TIFA	1	27	28
7. Camansi	17	13	30
8. CFA	8	19	27
9. Baruahay Sur	14	14	28
10. Tigbao	9	19	28
11. Sta. Fe	18	17	35
12. Binibihan	12	16	28
13. Sitio Cabatoan Samahan han Parag-uma	16	10	26
14. Piloro	2	24	26
15. Lower Paragum	16	19	35
16. Canhili	13	14	27
17. BIFA	4	12	16
18. CUFA	9	18	27
TOTAL	215	269	484

Reference: MAO Carigara

In all the study areas, there is no farmers' associations that cater to farmers growing one crop only, specifically, the cassava farmers. The farmers in each association belong to the same barangay, and the crops that they grow may include one or more of the following: rice, cassava, corn and vegetables. Since, cassava can only be harvested after eight months, farmers are encouraged to apply crop diversification and intercropping so that they can draw profit from the sale of other farm produce at all times of the year.

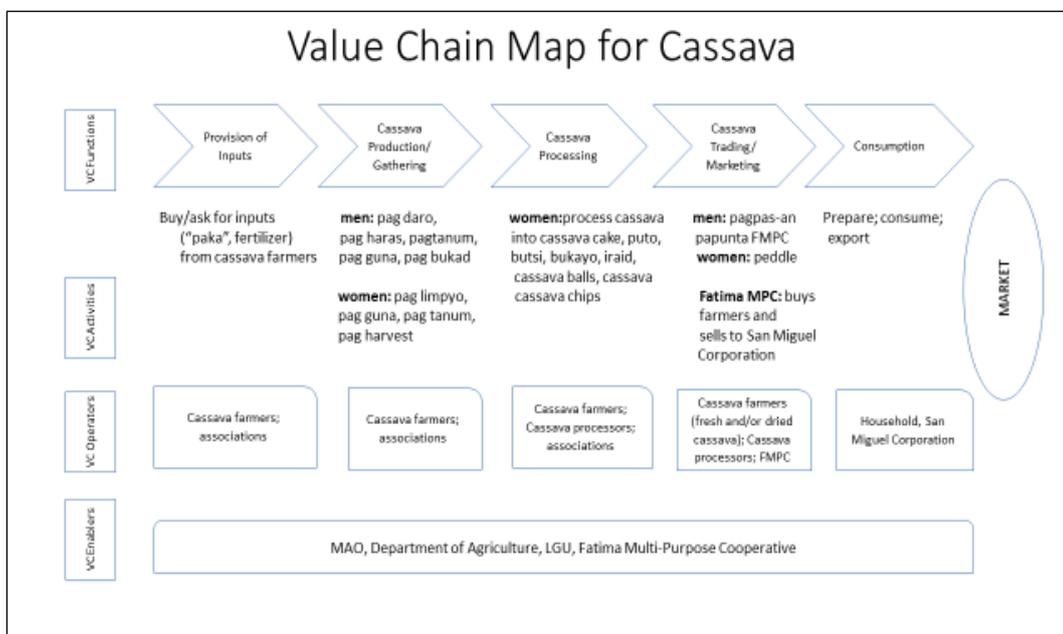
In terms of poverty incidence among families, the province of Leyte has 27.8% in 2009 which increased to 39.1% as of the 1st semester of 2015 at the per capita poverty threshold of P15,500.00 and P10,981.00, respectively. At the municipal level, Calubian has 52.03%. Carigara has 38.94%, and Jaro has 41.06% as 2003 data. In the same year, the provincial poverty incidence for the women's sector was 36.7% and for the farmers was 37.3%. These increase to 39.6% and 46.7%, respectively, in 2009 (PSA, 2015 and NSCB, 2009).

Gender Roles in the Industry Value Chain

In the cassava industry there is no wage discrimination. Men and women farmers are paid the same wage for the same farm work. However, women are observed to have more unpaid and non-monetized farm work.

The value chain map shows the works done by men and women in the farm from input provision to production, processing, to trading and marketing. It also shows the enablers or the agencies and institutions that lend support to the value chain players who are the cassava farmers.

Figure 6. Value Chain Map of Cassava Production



CALUBIAN, LEYTE

Farms planted with cassava usually have intercroops of corn, peanuts, camote, monggo and bananas. The study areas of Brgys Cantonghao, Tagharigue, and Igang. The latter is farthest from the town proper, being located 7 kilometers away, but is accessible through cemented road. Brgy. Cantonghao is only 2 kilometers away, while Brgy Tagharigue is a kilometer farther and the road is not cemented.

Farm Inputs

The carabao is an important help in land preparation (*pagdaaro*. The owner is paid P300 a day with free breakfast, lunch and snacks. Labor which cleans the ground (*pagdalos*) is paid P200 a day with food provision, too.

The *paka* (planting material) is bought from the multipurpose cooperative (MPC) at P20 per 25 pieces. Sometimes, *paka* is given by those who have excess.

Itapon lang din naman ang paka pag di nagamit. Kaya ibigay na lang. (The *paka* will be thrown if unused anyway. So, better to give it.)

There are different varieties of cassava used: *lakan*, *abrikultura*, *puk-a*, *pulutan*. Farmlands are mostly tenanted, with a sharing scheme of $\frac{1}{4}$ for the owner and $\frac{3}{4}$ for the farmer. In coconut farmlands, the farmer is allowed to intercrop cassava without the required additional “rent” given to the landowner. For those who till their own land, they report of possible areas for expansion for cassava production, if needed.

Other farm inputs are: tractor (rented), tools like the *sundang*, *bolo*, *barra de cabra*, *landok*, *arado*.

Farm Activities

Both women and men work in the farm. The husband does not expect his wife to help him in the farm because he knows his wife has much work to do at home.

Makalooloy man kay naglalaba ngan natuonpn. (I pity her because she washes clothes and cooks the meals)

However, the wife would hasten to finish her homework after which she voluntarily works in the farm.

Malooy man ako ha akon asawa. Uupdan ko ha uma. (I pity my husband because he is doing hard work. I will assist him in the farm.)

Men’s activities include: *pagdaro* (plowing), *pagpatag* (levelling with the use of a tractor), *pagtudling* (*kalihan para paka*), *pag-abuno* (fertilizer application), *pas-an* (hauling), and *paggabot* (harvesting). The other works, he does with or without the help of his wife: *pagtanum* (planting), *paglimpyo* (cleaning), *pamunpon* (gathering/piling weeds for disposal), *pagsulod ha sako* (putting the harvest inside the sack), *tadtad* (chipping), and *pagbulad* (drying). Where the women are, the children are mostly likely there, too. The wives also prepare the meals and the coffee for the husband and other workers. She helps in *paggiho* (weeding), *pakaon han karabao* (bring carabao to graze), and in *pagsudoy* (peddling) of processed cassava items such as *iraid*, *puto*, *syakoy*, and *butsi*. Husbands help/assist prepare these processed foods for sale. They are assigned to *pagpanit* (peeling), *pagbagnos* (grating), and *piit/pagpuga* (squeezing the grated cassava).

When men do the weeding, it is *patuna* (grasses are uprooted, not just cut, with one or two bows of the *bolo*). *Patuna* requires strength and precision. Women cannot do this. Hence, she is assigned in areas where there are less grasses to cut and clean.

CARIGARA, LEYTE

The scenario in Calubian is similar to that of Carigara in Brgys Camansi, Candigahub and Tigbao. There are intercrops in the cassava farms. There are coconuts, corn, pineapple, banana, vegetables, tomatoes and pepper.

Farm Inputs

In Brgy Camansi, the carabao owner charges P400 per day (work from 7:30am to 5:00pm) inclusive of lunch and 2 snacks. The cost is P450 per day without lunch but with 2 snacks. The cost is higher by P50 in Brgy Candigahub. For a one-hectare farmland, the farmer will need 10 carabaos to prepare the land. The cost is multiplied by 3 because plowing must be made 3 times over the same area.

If the farmer uses a tractor, the rental is P3,500 per hectare; again multiplied by 3. The cost is exclusive of the gasoline. The carabao is still needed to further make the land fine and more suited for the cassava. Six carabaos per hectare are needed for this purpose.

Labor costs for weeding and other similar tasks is P250 per day with food provision, and P300 per day without food.

The *paka* is most often than not, requested from a neighbor or relative. Other farmers buy *paka*, but these are sold at very low prices: P50 per sack, or cigarettes (any amount) per *gahos* (whatever one can carry), at P0.50 per *tangkay* where one *tangkay* can be cut into 10 *paka* that are ready for planting.

Farm Activities

Plowing, whether with the use of carabao or tractor, is done by men. It is dirtier to work with the carabao as the latter keeps on wagging its tail and mud is whisked all over.

It waray la lutak, it im dila. (Only your tongue is spared from the mud.)

Pakaras (loosening/preparing the soil) is led by the men, too. His other farm work are: *pagdaro* (plowing), *pagpatag* (levelling with the use of a tractor), *pag-abuno* (fertilizer application), *pas-an* (hauling), and *pagbukad* (harvesting).

His wife helps in: *pagtanum* (planting), *paglimpyo* (cleaning), *pagsulod ha sako* (putting the harvest inside the sack), *tadtad* (chopping), *pagbulad* (drying), *paggiho* (weeding), *pakaon han karabao* (bring carabao to graze), and in *pagsudoy* (peddling) of processed cassava items.

Nabulig ako basi matima dayon. (I help my husband so that work is done sooner.)

Nalolooy gad ak hit nag-aarado kay marahol. (I pity those who plow the field; work is tiring.)

It pagbulig ko ha uma, nagbabanding kami ngan hit ak asawa. (When I help my husband in the farm and spend time with him, we know we are strengthening or marriage bond.)

For the next 10 months to one year, after the *paka* is planted, it is the family labor which does the weeding and maintenance of the farm.

JARO, LEYTE

Jaro is an hour and a half away from the Fatima MPC. Its barangays are accessible either by jeepneys/trucks or by *habalhabal*. Bgy Hiagsam is located along the national highway. On the other hand, Brgys Mag-aso and Malobago are not. Male farmers, who manage the farms, have intercrops of cassava with corn, peanuts and cash crops and vegetables.

Farm Inputs

Male farmers prefer the tractor over the carabaos. With the tractor, work is fast and only one person will be given food provision. Moreover, the soil is loosened up to 6 inches deeper than the carabao's work. For tenanted farms, the sharing differs according to the agreement of tenant and landowner. It could be *tinulo* (1/3 to owner, 2/3 to farmer), or *katunga* (50-50), or *linima* (3/5 to the farmer, 2/5 to owner).

Labor cost is P500 per day without food provision, while P400 per day with lunch and 2 snacks. Work is from 10am to 3pm. Most often, cigarette is free and at the end of the day, *tuba* is served to the workers (optional) as a "replacement of the farmer's sweat and perspiration."

Jaro soil is about 80% loam-clay, hence, the need for organic fertilizer. Farmers believe that cassava will bear more produce if the soil is more sandy. Farms are flatlands.

The planting material, *patdan*, is given for free by friends and relatives. During harvest season, one can ask for *patdan* from fellow farmers. Cassava varieties are *makan* (white) and the yellow cassava, which is more preferred because of its ability to bear more.

Bolo, piko, sadol, pala, kagkag and *sundang* are cleaning, clearing and cutting tools used in cassava farming.

Farm Activities

Men and women get the same pay for the same farm work.

Kun magtupad pagdalos, pareho liwat an suhol. (If you work side by side, then the pay must be the same for both of you.)

The husband expects the wife to be in the farm.

Para inspirasyon (For inspiration)

Para ak diri gul-an (So I won't get tired)

Basta la hikit-an (As long as I see her and feel she is around)

The physically-taxing work of plowing (with tractor or carabao) is meant for the men. The soil is loosened three times over: *pag-ukab* (1st run), *pakaras* (2nd run), and *pagbali* (3rd run). Fertilizer application and hauling tasks are men's work, too. Weeding, cleaning, clearing, chopping and drying are shared tasks by both men and women. On the other hand, the women-dominated jobs are the processing of cassava and peddling cassava food items.

Women help their husbands in the farm for the following reasons.

Pag di bumulig, mamatay an paka (If we do not help, the *paka* will die)

Tabang na lang kay di man makaya han bana. (We help because our husbands cannot make it on his own.)

Social Cohesion

In all of the three municipalities of Calubian, Carigara and Jaro, farmers and their families manifest behaviors of social cohesion. Indicators include pro-social behavior and trust, cooperation, sense of belongingness and meaningful participation in the community (whether as farmers, or as neighbors).

The dynamics among the farmers are similar. Cassava farming is generally a family affair. However, there are times when children are in school, or when the husband is sick, or when the farmer is a single mother and it is harvest or planting time --- all of which require additional hands in the farm. This calls for helping hands in the community regardless of age and sex.

CALUBIAN, LEYTE

Pro-social Behavior and Trust

In Calubian, male farmers are *nag-aayunay* where they help in the farm of a fellow farmer who is in need of labor. This is on a voluntary basis, and no one expects monetary rewards or payment. It is not the individual output/performance that matters but the attainment of targets at the end of the day. The wives help as appendage to men's work except during planting and harvesting when they are major farm workers like the men are.

Farmers likewise allow others to borrow their weighing scales, especially when harvest time comes. They understand that not all farmers can afford weighing scales. Farmers also give away *paka* to others who are in need. The latter will always be on the lookout as to where the next harvest is. This is where the *paka* abounds.

Meaningful Participation

Women are allowed to work in whatever task they want to do in the farm for reasons abovementioned. When it comes to loans, both husband and wife agree on the details of getting the loan, although the wife is the one who goes to see the creditor. For decisions related to farming techniques, the women give the decision making space to the husband who knows more. On the other hand, in the marketing of the harvest, women negotiate with the buyers.

The cooperative allows women to become the registered members, with the consent of the husband. This allows greater participation of women on matters affecting the cassava industry. It also exposes her to more technologies such as those learned in trainings and seminars.

CARIGARA, LEYTE

Pro-social Behavior and Trust

Araglayon (also known as *ayunay*) is always a practice, that is, to extend favors to other farmers.

Nag-aaraglayun na la para waray aragway. (We extend favors, we stretch our patience, and we try to understand each other so that we do not end up quarreling with each other.)

Farmers give planting materials to those who do not have.

Naghahatagay kami hin lawas hin balanghoy. (We give each other planting materials.)

Male farmers attend meetings and inform others who were absent as to what transpired. Women are less likely to be invited, but not when the topic is on cassava food processing. Men give discounted rates to labor services if that is the only way for the fellow farmer to be able to have their own cassava farms like the cases of the widow, the single mother, and the spinsters who are living alone.

Meaningful Participation

In the cooperative, everyone's voice counts. That is why, male farmers try hard to attend meetings. Wives are allowed to substitute their husbands in certain gatherings. When it comes to decision making, husbands decide on production techniques and fertilizer application. However, the wives can influence his decision. Wives decide on money matters and the family budget. The couple decides on sources of credit and their collateral for loans. However, it is the wife who goes to the creditor.

In Brgy Tigbao, the association requests the 19th Infantry Battalion and the CMO Infantry Division for civic action in the cassava farms. There is *pintakasi* as well as a manifestation of self-help in community-level activities.

JARO, LEYTE

Pro-social Behavior and Trust

In the association, members talk and agree on matters of importance to the group and to the individual members. Everyone treads on respect and dedication to follow rules and policies.

Nagkakasarabot (We end up agreeing.)

Disiplina. Magkiriglala man gud kami (Discipline. It pays that we all know each other very well)

Nag-uuru alayon kami. (We extend favors to one another.)

Meaningful Participation

Wives and husbands share in decision making. This is with regards to uses of money, production schedules, and the children's schooling. Decisions as to whether the wife will work in the farm or not, on the other hand, is the wife's personal decision. However, if the husband will have his choice, he would want the wife to stay home and take care of the family's needs. When the wife insists that she helps in the farm, then the husband obliges.

During trainings called by government agencies and/or the MPC, the husband would want the wife to attend because he feels that the wife can understand better, can ask questions, and can transfer the knowledge to him when they get to discuss the topic at home. They both know that husband and wife cannot be in the same meeting at the same time. One of them has to be left at home to take care of the family's needs.

Access to Financial and Business Development Services

Cassava farming has not been a significant source of income. These were just grown in the backyard, mostly to tide away the family when there are cash shortages and/or when there is no other staple food (rice) available for the family. When this happens, the husband/wife goes to the backyard, checks which plant is ready for harvest, uproots it, cleans the cassava, and sells it in the market. Then, there is ready cash that is enough to meet immediate cash requirements of the family. There has been no big plantation where farmers could harvest in thousands of kilos or in tons. The husband harvests what is enough for present needs. Harvesting more, without the proper storage, will only destroy the quality of the root crop.

CALUBIAN, LEYTE

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To plant cassava in a ¼ hectare of land, male farmers need at least P5,000.00 to be used to pay the owner of the carabao/tractor, and for other labor costs. Funds come from loans at 3% per month, payable anytime as long as the whole amount is paid within a year. Others get loans from private creditors at 20% interest called 5-6. The men instruct their wives to transact/negotiate with the creditors.

Ikaw la didto it atubang. Aadto la ak ha uma (You transact with the creditors. I will just do my work in the farm)

In terms of trainings, these are accessible to both men and women. Fatima MPC encourages women to participate. The LGU-MAO has conducted trainings, too, such as the Sloping Land Area Training where farmers are taught what to plant in sloping areas such that erosion is prevented. Together with the training is the distribution of seeds of fruit trees for planting in the subject areas.

For the women, there were trainings conducted on cassava chips making, and the preparation of other food stuff from abaca.

CARIGARA, LEYTE

On one hand, the farmers do not want to borrow money. They know they cannot pay. Hence, they try to make both ends meet by vending bananas, fowls, livestock, and root crops. They also borrow from relatives with or without collateral, based on word of honor. They try their best because they do not like the experience of facing a collector every week, who does not leave without the debtor paying the amortization that is due.

On the other hand, they need a start-up fund for the cassava plantation.

Waray pa ngani kami para tiyan, say pa para tuna? (We don't even have money for our stomach, how much more for the land?)

Hagluag an tuna; waray kwarta nga gintitikangan. Salit, bisan na la guti nga uma basta waray utang. (The lands are wide but there is no money to start production with. Better to be content with small farm size without falling into debt.)

Except for CARE intervention, in terms of training, there have been none that farmers can remember in as far as cassava production is concerned.

JARO, LEYTE

Both male and female farmers think that they do not need any training. The traditional way has worked for years and has sent children to school.

Neither do they need capitalization. The farmers' idea is one wherein farms are small, hence, financial requirements can be taken care of savings, *araglayun* (self-help), free *patdan* (planting material), and borrowed money from relatives with the root crop itself serving as the collateral and is payable within a year. The easy and more convenient terms of the loan from informal sources attracts farmers. They do not want to fall into debt because it is another burden. They do not dream of a cassava enterprise, in as much as they do not know of their markets.

They would rather raise livestock than grow cassava because the former can be sold easily after a shorter period of time than cassava which can be harvested only after 8 to 12 months. The opportunity cost of planting cassava is high because the farmlands are used to produce other crops with more production cycles within the 10 months that is needed by the cassava to grow.

Knowledge, Skills and Practices in Business Operations

Typical of small-scale production, cassava farming uses traditional methods. It is not carried like a business or enterprise that is aimed for making profit and future expansion in scale.

CALUBIAN, LEYTE

Male farmers do not plant on a Tuesday and Friday -- This used to be widely practiced before but is already waning among the younger generation of farmers. It is believed that there are a lot of evil spirits lurking on Tuesdays and Fridays, hence, these are not good days for planting. Women who help plant cassava would follow what their husbands believe in.

Farm households are used to harvesting little by little for the town market – Cassava production is like having an ATM. Male and female farmers harvest just when s/he needs cash, and at a volume just enough to generate the small amount needed. In instances that the market does not absorb the harvest, there is an alternative buyer, the Fatima MPC which buys any quantity of cassava regardless of quality (even if it is almost rotten).

Male and female farmers sell paka to Fatima -- Generally, while farmers give free *paka* to fellow farmers, it sells *paka* to Fatima MPC at P0.50 per piece. The decision to sell is usually a joint decision.

Women farmers use tapahan (tap-anan) to dry the cassava -- This practice ties the woman to the *tapahan* the whole time because she keeps on mixing the chopped cassava so as not to get burned.

Male farmers have ways to prevent soil erosion -- In sloping areas, male farmers will pile up the weeds that have been cut during farm clearing. . Children help. This practice prevents landslides to happen

Farmers (both sexes) know that young cassava weighs lightly – Farmers do not harvest young/immature cassava because when dried, they are surely lighter than those which were harvested after 10 months.

CARIGARA, LEYTE

Male farmers do not know correct fertilizer application -- Male farmers, who are the primary labor in growing cassava, feel that there must be different fertilization techniques, given different varieties of cassava. They know of three varieties: *busay, dulaw, ginapas*.

Farmers sell on “kuridas” basis -- Women who does the marketing sell dried chipped cassava as one whole lot. The good and the poor quality just come at one price level. No grading, sorting, and classification happens at the farm level.

Farmers (both sexes) feed hogs with cassava -- When there is no budget for livestock feeds, the farmer uproots/harvests cassava in amounts needed to feed the livestock. This is a cheaper and less inconvenient way compared to selling the cassava at a low price and using the income to buy livestock feeds.

Husbands look for creditors, wives negotiate the credit terms -- This is practical and effective arrangement because it is the wife who can better verbalize and convince the creditor. Moreover, when the wife is able to get the borrowed money, she will come home with the goodies for the family. Had it been the husband, he will come home drunk.

JARO, LEYTE

Male farmers believe that cassava affects the growth of intercrops -- By experience, if the cassava is grown first, then corn, peanuts and vegetables will have stunted growth. The women believe this.

Cassava plants as a collateral for debts – This is acceptable especially among relatives. Farmers who need cash will use their cassava plants as loan collateral.

Out-of-town laborers are hired – At a time when abaca farmer harvest simultaneously, they resort to hiring laborers from the other barangays.

Farmers (both sexes) do not know about the varieties and their characteristics --- All varieties are grown in the same manner. Farmers do not know the peculiar characteristics and markets for each variety.

Issues and Concerns in Building Resilient Livelihoods

There are issues and concerns that need to be addressed in order to build resilient livelihoods among cassava farmers. Both men and women farmers in the study areas share similar concerns.

CALUBIAN, CARIGARA and JARO

There are pests that damage cassava. Farmers claim that cassava may be infected with *tungaw*. The whole body of the plant becomes covered with whitish insects, until the plant dies. There are other cases when the leaves start to turn yellow because of aphids. There are *anays*, too. Both aphids and *anays* cause the plant not to develop its roots, then it dies. There are *batungol* (worm) that destroy the cassava. This happens in dirty farmlands. Finally, there are insects that eat the roots causing leaves to fall until the plant dies. It was observed that farmers want to apply insecticide to the cassava but there is monggo, corn and peanuts as intercrops which use inorganic farm inputs.

What farmers (both sexes) do is to cut the affected part of the plant, or to uproot and burn the entire plant, depending on the extent of the damage caused by the pests. They would also start harvesting those that are still unaffected to get the most of what is left – for food, for the market, for the hogs, for compost and any other use, depending on the maturity of the cassava.

There is only one buyer of dried cassava. Fatima MPC is the only buyer of dried chipped cassava. The issue is specifically on the inability of FMPC to buy and pick-up the cassava that are ready for harvest from the farms. In Jaro, many of the farmers were supposed to harvest last October yet. However, four months later (in February the following year), the cassava are yet to be harvested. The farmers are worried that should it be sunny always, the plants will die. Should it be rainy, the roots will rot and the plants will die. In both cases, incomes will be low. Farmers lament that had the cassava been harvested on time, then the farmlands could have been planted with other cash crops, hence, generating income. The opportunity cost is getting higher. The farmers are left with no option but to wait for Fatima MPC to buy their crops. Women farmers seem to be more worried. They understand that should there be no sales and cash calls short, it will be them (women) who will bear the burden of budgeting and looking for/negotiating with creditors.

It takes from 10 to 12 months for cassava to generate income. This is a long time for the farmer who depends on the land for his daily upkeep. This discourages some farmers to expand cassava production. Intercropping, or planting by batch every two months may partially answer this concern. What farmers do now is raise livestock and/or plant cash crops.

Limited markets. Male and female farmers do not know much about their market, except the market days in town and the Fatima MPC. The former is very limited, the latter is an intermediary that can buy larger volumes. Since there is no value addition to the cassava, the farmers' markets is limited. If the fresh cassava is brought to the town market, the farmer can sell a sack of cassava at P350 to P500.

Lack of transportation and hauling facilities. The reason why both male and female farmers in Jaro are not harvesting their cassava is the inavailability of Fatima MPC trucks that will haul their cassava from farm to Calubian, where the MPC is.

Lack of warehouse. Freshly-harvested cassava are piled in each farmer's house, most probably exposed to the sun and the elements. Dried cassava chips are similarly scattered. There is no warehouse where the farmers can bring their products for further processing or for pick up by buyers.

Climate variability. With hot climate, the cassava plant gets “burned” and its growth is stunted. With the rains and flood, the roots gets exposed and gets rotten or the whole plant is uprooted and washed away. If the plant is not uprooted, its body may get broken, leading to the ultimate wilting of the plant. If the plant survives, chances for its roots to remain undeveloped is higher. Farmers also observe that if the rainy season comes when the cassava is 8 months old, the root crop becomes rotten and emits foul odor.

Lack of post-harvest facilities. Dryers, warehouse, chopping/chipping equipment/tools, and similar storage facilities are lacking. These facilities will allow farmers to increase productivity by reducing work effort per unit of output and increasing returns per unit of time. Moreover, labor will be protected from getting cuts, bruises, and wounds if they work with tools/equipment that are scientifically designed for certain types of farm work.

Strengthening the Value Chain

There is the urgency in strengthening the cassava value chain, particularly with respect to the market for cassava. Expanding production areas is deemed secondary to the solution on identifying sustainable markets for fresh and dried cassava.

Input Provision

- *New varieties of cassava* -- In order to improve land productivity, the cassava variety suited to which type of soil must be considered. A soil analysis is a first step towards this initiative. Moreover, the type of market must be factor in deciding what cassava variety to plant. Is the market for the feedmills, or for the bakeshops, or for the hogs/livestock?
- *Ways to lengthen the life of the paka* -- The quality of the *paka* must be ensured so as to produce the most. In the absence of nurseries, the farmers must be taught on how to take care of the *paka*.
- *Appropriate intercrops for cassava* -- Usually, it is cassava and corn; but there are other options for intercrops. The farmers need expert advice regarding the intercrops for cassava that can be promoted, given the soil conditions. Moreover, there are certain requirements for fertilizers and insecticide application for each of the intercrops that need to be harmonized/synchronized.

Production

- *Protective gears and farming implements dove-tailed for male and female farmers* -- With particular reference to women- farmers, certain protective gears and farming implements have to be provided in order to address their practical gender needs. Examples of these gears

are: boots, gloves, hats, trolleys, conveyors, and cutting tools that she can comfortably handle/carry (e.g. *landok*)

- *Pest control and disease management* -- A training on this aspect is necessary in order for the farmers to understand how to handle this farm risk for the benefit of his own farm, and to protect the spread of the pests/diseases to other farms.
- *Provision of carabaos* -- In the long-run, if farmers have more carabaos to work with, productivity will be enhanced. Farmers will not wait in line, for his time to rent the carabao. Hence, planting will proceed as calendared.
- *Farm mechanization for large farms* – For larger farms, the tractor is a better option in order to take advantage of the economies of scale. It may be provided as a common service facility. Guidelines for its use, maintenance and sustainability will have to accompany the purchase of the equipment.
- *Crop insurance* -- There will always be farm risks. The impact can be lessened through crop insurance. If cassava farming will be run like business, then this cost is technically a protection from unforeseen situations and uncertainties.
- *Training on farming technologies* -- Both male and female farmers have to be exposed to new and emerging technologies in cassava farming so that they will be inspired of the business prospects attached to it, on top of the social benefits that cassava farming can bring to the community. This kind of training should be open to both women and men, that despite their differential situations, each one understands and appreciates the importance of the cassava farm to the family's welfare.
- *Training on sorting, classification, and grading* -- For better pricing options and higher cash positions for the farmer, the latter must start classifying and grading his produce.

Processing

- *Skills training with equipment provision* -- Fresh cassava can have value additions through processing. Today, the chipped dried cassava is the only product aside from fresh cassava that is being sold in the market. Processing the cassava into food items, preserves, and other non-food products has to be developed in order to absorb the farmers' fresh cassava at the farm gate. The market for processed cassava must be identified and matched with the farmers' capacity to produce. Moreover, skills training will mean nothing without the equipment to work with, and the market to absorb the products.

- *Provision of a dryer* – Once farmers start classifying and grading its produce, the demand for a dryer is not far behind. Even today, the farmers want a dryer in response to the effects of changing weather conditions, and also to the demands of the market. Mechanisms for its sustainability (in case this is provided as a common service facility) has to be worked on.
- *Trainings on product development* -- If cassava production is expanded to include wider farmlands, then product development is necessary in order to capture bigger markets. Women and the vulnerable groups (e.g. PWDs, OSY) must be given priority in order to promote inclusive development.

Trading/Marketing

- *Bagsakan center* -- Costs from farm gates to the market can sometimes be high to discourage farmers to bring their products out of the farms. A *bagsakan* center will ease the burden, and will encourage farmers to increase production because they are sure of a place to bring their product any time they have a harvest.
- *New markets* – New markets have to be identified and their size and nature of demand be established in order to match them with certain farmers that will provide them with the backward linkage. The advantages and opportunities brought by emerging markets due to the ASEAN integration is one important consideration. Competitiveness of the farmers’ and processors’ products will be of utmost concern.
- *Contract farming* -- It is best if there are contract farming agreements forged with big industrial companies such as feed mills. This will enable the farmers to regularly produce and sell, hence, have stable incomes.

On the part of the enablers, it is primordial that the LGU draft and approve a Cassava Development Plan with a corresponding budget. The plan should be tested for its gender-responsiveness in order to make cassava farming a driver for inclusive local economic growth. Components indicative of DRR and climate proofing will be worthwhile to include in the plan.

For the academic and research institutions, farming technologies that will be transferred to the farmers must be dove-tailed according to the latter’s needs and circumstances. Moreover, financial institutions which caters to the farmers, will have to design a financial assistance package that is synchronized with the technical assistance, considering that cassava is harvested only after 10 to 12 months. The cycles of production of cassava and the intercrops will have to be appropriately schedules vis-à-vis the location of the farm.

5.4 Herb Value Chain

San Dionisio, located in the northern part of Iloilo province, is a 4th class municipality with a poverty incidence of 42.26% (KALAHI-CIDSS, NCDDP).

It produces herbs which has a big market potential even just in the domestic market. Herbs are used in households for diseases/illnesses such as cough, fever, body aches, and menstrual disorder, among others. Its commercial value is increasing since laboratories and research institutes have looked into herbal medicine as an inexpensive and accessible alternative.

In Panay, there are herbal processors which utilize herbs such as *sambong*, *lagundi*, *oregano*, *banaba*, citronella, and eucalyptus (Table 5). The market is emerging and growing, but there is no database yet that captures the size and trends of the market for herbs. Nevertheless, there are packets of evidences where local manufacturers are getting headway into the herbs value chain.

Table 26. Sources of Demand and Supply for Herbs in Iloilo

Name of Enterprise	Location	Nature of Demand for Herbs
DEMAND		
ESCOM Herbal Products	Janiuay	Needs 1k to 5k per month of sambong, lagundi, oregano, malunggay, banaba for its herbal capsule products
Rosary Herbal Products	Passi City	Buys 1k to 5k per month of peppermint, neem, eucalyptus, citronella, oregano, lagundi, sambong
Health and Wellness Association in Iloilo, Inc (HAWAII)		Composed of spa/wellness centers, farmers, and processors in Iloilo
Iloilo Hotel, Resorts and Restaurants Association (IHRA)		Composed of hotels, resorts and restaurants operators
Midway restaurant	Passi City	Trades herbal products, fruits and vegetables
SUPPLY		
Panay Organic Producers Association (POPA)		Composed of natural and organic vegetables and herbal products farmers, processors and advocates

Reference: Market Assessment on Herbs: Prospects and Challenges, Powerpoint presentation by J Tionloc (22June2015)

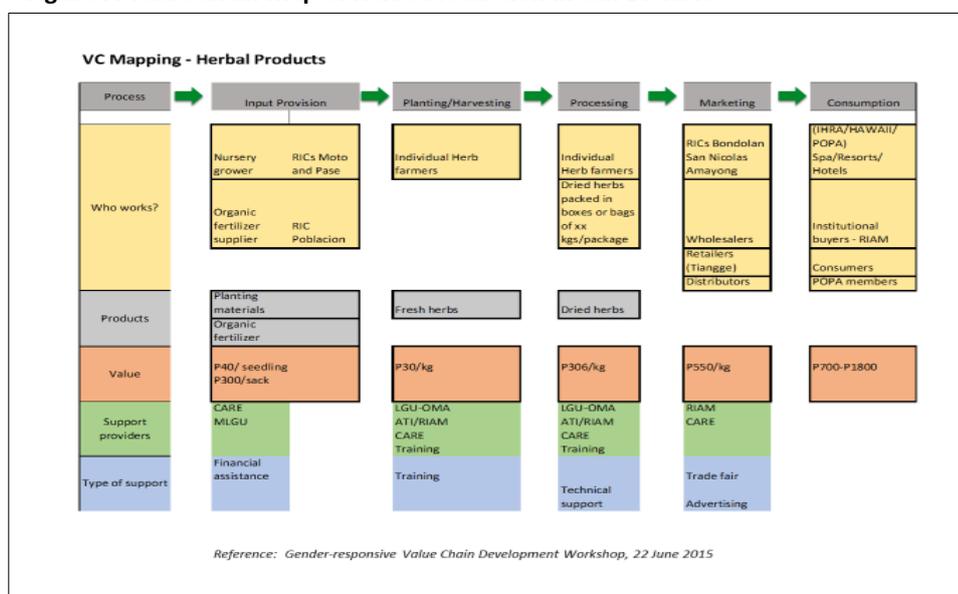
In Manila, Shangrila needs rosemary, thyme, and tarragon. Orchia, a Filipino food and beverage company, needs stevia. All these are produced in San Dionisio, Iloilo. There are Rural Improvement Clubs (RICs), created by the Department of Agriculture, which spearhead the production of these and other herbs such as peppermint, sweet basil, horsetail, clitoria, and *serpentina*.

As forecasted, projected exports of Philippine organic and natural products is going up with the most use for personal care, followed by food, then as health supplements. Dried bayleaf, basil, oregano and thyme are expected to have greater demand.

Gender Roles in the Industry Value Chain

There are Rural Improvement Clubs (RICs) in the different barangays of San Dionisio, with each one specializing in one VC function. For example, the RICs of Moto and Pase are nursery growers, and the RIC Poblacion supplies the organic fertilizer. The RICs of San Nicolas, Amayong and Bondolan are in marketing. In January 2016, twenty RICs/associations formed a federation where around a third are directly engaged in herbs production for commercial purposes. (Figure 2)

Figure 7. Value Chain Map of Herbs Production in San Dionisio



Before CARE's assistance came to the barangays of San Dionisio, women were already into herbs production but only for personal and household use. Today, the RICs are expanding production to cater to a bigger market. Usually, there are 2 to 3 plots of herbs in a garden that is maintained by a household. These are usually peppermint plots measuring 1 foot by 10 feet.

Farm Inputs

Seeds and seedlings used are sourced from one's own backyard garden. In the communal gardens of the various RICs, seeds and cuttings were bought from Sara. Planting materials cost an average of P40/seedling. In July 2015, CARE distributed the seedlings.

As to the farmland, there seems to be no problem since the area required is not vast. Aside from the backyards, communal farms that are planted with cash crops may serve as areas for herbs as well. Expansion is not expected to be drastic at this point when markets for herbs are still to become more regular and stable.

Labor is available. Women significantly outnumber the men, mainly because herbs farming is a project of the RICs that are composed of women.

Noong una, sabi ay para lang sa babae ang herbs. (Sometime ago, they say that herbs production is for women only.)

Walang hilig ang mga lalaki sa herbs. (The men are not keen on herbs production.)

This may stem from the roles played by women at home as nurturers and care-givers, while the men go far from home to get paid work.

Aside from labor, land, and the seeds, water is an important farm input. Brgy Bondolan has a water impounding system, and Brgys San Nicolas and Pase have jetmatic pumps. As to tools used, women and men use *pala* (shovel), *sadol* (hoe), *piko* (pick), trowel, rake, and *pisaw* (knife). These are easily available in the market, and are not costly.

Herb farmers use organic fertilizers which can be bought at P300/sack from the RIC Poblacion.

Farm Activities

Herbs production is not a primary source of income, but rice and corn production are. Its introduction as an additional livelihood is welcomed by both men and women in San Dionisio.

In the farms, women manage the day-to-day affairs. It takes at least one and a half months to plant, grow and harvest the herbs (depending on the type). At the nursery and in the farm, the men fetch the water using pails, and the women water the plants. Men also carry the compost to the plots (*hakwat abono*) during the fertilization stage. They clear the areas (*panghilamon*).

Men till the soil (*panadol, arado, nagabungkal sa lupa*), put up the fence (*kudal*), and make the plots ready for planting. Women help make the plots and dig holes. However, men still repeat the plots and holes dug by the women. At times, this causes misunderstanding between the couples. Women would blurt:

Bakit hindi pwede yan? (Why is it not acceptable to you?)

However, when men answer in low voices to say that the plots and holes can still be made better so that the plants will grow well, then the women obliges. Men also do the hauling of farm inputs.

Watering the plants (*pagpamunyang*) is done daily for two times: one in the morning and one in the afternoon. During harvest time, the couple help each other. However, in times when the husband is working in the rice/corn fields, or is working somewhere else for pay, then the women does the harvesting alone or with paid laborers who may be both men and women.

Men have other work. They drive motorcycles for hire (*habalhabal*) where he earns an average of P200/day after subtracting P100 which goes to the owner of the motorcycle. In the rice fields, he earns P150/day with free meals and snacks, or P200/day without the food provision. Some men are carpenters where they get P300/day or P350/day with or without food/meals.

The women, on the other hand, have limited work options. They do not possess the skills on carpentry nor on motorcycle driving. Hence, they are relegated to take care of the herbs. After harvest, they air-dry the herbs, weigh it when dried, does the packaging and labelling, and the marketing as well.

They also think of new products such as the herbal pillow, a “discovery,” in Brgy Pase.

Naisipan lang kasi problema paano ma-dispose and dried peppermint. (Just thought about it because there has to be a way how to dispose the dried peppermint which has no market.)

Social Cohesion

How do men and women in herbs production help each other? How do they promote the value chain? How is social cohesion manifested? The three indicators used are pro-social behavior, trust, and meaningful participation.

Pro-social Behavior and Trust

Husbands put trust in their wives that the latter can manage the herbs farms and make these as significant sources of additional income for the family. The women play their parts so well by attending seminars and trainings religiously, and by practicing what they learn.

At the community level, the dynamics among RIC members indicates that there is positive social behavior displayed by members, otherwise, the group would have been disbanded some time ago. The RICs have male members, too, but in very insignificant numbers (Table 5).

Table 27. Composition of Rural Improvement Clubs which are Engaged in Herbs Production

Name of RIC	Membership			Date of DOLE Reg	Year Founded
	Female	Male	Total		
Amayong RIC	29	3	32	9 July 2015	2009
Bondolan RIC	33		33	4 June 2015	2012
Cubay RIC	68	2	70	7 Sept 2015	2012
Moto RIC	56		56	20 July 2015	2013
Pase RIC	56		56	7 June 2010	2010

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Poblacion	137	6	143	20 Nov 2014	2013
San Nicolas	54	6	60	8 Oct 2010	2010

It does not mean, however, that men cannot be counted in herbs production. During planting and harvest season, when labor is needed in the farm, the men are willing to be absent in their other paid jobs in order to lend a hand to the women. Moreover, when rice, corn and herbs are to be harvested at the same time, the couple will come up with a practicable schedule. They divide the work.

Kung maliwanag ang buwan, pwde magdilig sa gabi. (When the moon is bright, we water the plants at night.)

When it comes to marketing, husbands do not mind if they do not know the selling price of the dried/fresh herbs. This part is entirely left to the women. Tradition and practice dictates that selling is reserved for the women, though they may not necessarily decide on the use of revenues.

Meaningful Participation

Two months ago (21 January 2016), the RICs and other related associations who formed themselves into a federation in 2015, registered their group called as the San Dionisio Multi-sectoral Integrated Association (SDMSIA) Inc. Among the twelve officers, four are males who hold the following positions: Asst Secretary, Auditor, Asst Business Manager, and Asst PIO.

At the association or federation level, members are expected to help everyone. At the household or individual farm level, farmers resort to *tawili*. It is a *bayanihan*-type of arrangement.

Mag-tawili para tipid. Kung hindi, wala na matira sa yo. (Better to have *tawili* in order to minimize costs. Otherwise, nothing will be left for you as income.)

Those who join the *tawili* are not paid in cash. However, they are given a share during harvest time. How much? There is no definite amount, and no one complains.

Depende sa gugma. (It depends on one's compassion and kindness.)

There is no gender discrimination in herbs farming, except in the production of organic farming which seems to be reserved for the men. Many of the decisions affecting the herbs value chain falls on the women.

Access to Financial and Business Development Services

Herbs were not sold before. They were for home consumption. Hence, there was no need for financing and other business development services. The farmer was not an entrepreneur.

With the introduction of herbs as a significant source of income comes the necessity to expand production areas and to provide the enabling environment for herbs growers to conduct their farm work as business, and their products as goods for commercialization.

The starting capitalization came easy due to the assistance extended by CARE. The seedlings were likewise provided. Land preparation was the task of the RIC and the federation.

Without CARE assistance, it would cost like P4,000.00 for a hectare of land to be cleaned and prepared for planting. This usually takes a week. Seedlings cost P40 per piece. Other labor inputs will be paid according to the daily wage in alternative farms such as rice and corn farms. That is, P200/day with meals and P250 to P300 per day without meals. Financing was not a big problem since farms then were small. In the rice farms, a P1000 loan, the farmer has to pay P1,000 plus 1 sack of palay in 4 months after planting.

Trainings particularly for herbs farming were likewise not conducted. However, today, there have been a lot of trainings: product development, how to dry the herbs, production technologies, and the GAP training.

While these trainings are open to both men and women, it is the women who attend and participate.

Knowledge, Skills and Practices in Business Operations

The herbs farmers' knowledge and skills in herbs production is limited to domestic purposes and not for commercialization. There has been no entrepreneurial stance attached to an otherwise small backyard garden for household consumption, and as an alternative to expensive medicines and spices.

Male and female farmers do not know pest management and disease control. When there are pests detected in the plants, the farmer will simply cut the affected area so that other plants will not be infected. If the plant has stunted growth due to suspected plant diseases, then that particular plant is pulled out and thrown away. The farmer does not bother to check what the pest/disease is all about. They do not and cannot use insecticides. They do not know of alternative pest management and disease control.

Male and female farmers do not know the best harvest and handling techniques. Farmers report that they are unsure about the correct timing for harvesting according to the type of herb. They have questions like:

Kung malapad na ang area for harvest, ano ang gagawin para presko pa rin? (If the area for harvesting is vast, how will harvesting be done, while maintaining the freshness of the herbs?)

Mula harvest hanggang drying, paano hawakan ang herb para hindi masira? (From harvest to drying stages, how are herbs handled such that the leaves are not damaged?)

Paano kung umulan? (What happens when it rains? – referring to drying)

The farmers have observed the following situations, and have acted correspondingly.

Tarragon has to be harvested on time, otherwise, the plant will wilt and die.

Horsetail can withstand heat but if it is not watered after 3 days, it will wilt and die.

Peppermint easily succumbs to heat and high temperature. It is better to plant peppermint under a shade like bananas.

Stevia is sensitive to frogs and insects. Therefore, there is a need for greenhouses.

Male and female farmers want to know more about fertilizer application. Herbs production uses organic fertilizer which is produced in Brgy Poblacion. The farmers do not know the correct timing and procedure for fertilizer application. They do not intercrop herbs with okra, beans, eggplant and squash because they do not apply inorganic fertilizers.

Male and female farmers do not know what the market really needs. Generally, farmers do not have a good picture of what the market for herbs really needs. This is becoming a disincentive since some farmers who have harvested and dried the herbs have not earned incomes yet due to long waiting time for the identified buyers to pay. In Brgy Pase, women have made stuffed toys with dried peppermint in it, hoping that that there will be a market. Moreover, the products are not yet moving.

Male and female farmers do not use sun drying. What farmers know is that the nutrients in the herbs will be lost if these are sun-dried. They use air-drying, using self-made layers of nets. However, they do not know the best duration for drying herbs such that the moisture content is acceptable to buyers, and that the form of the product is acceptable in the market.

Weighing the herbs is done by those who were trained only. Children are not allowed to use the weighing scale because it might be damaged. Only those who were trained on how to operate the weighing scale can use it. This means, only the mother has access to the equipment since the women were generally the ones trained.

All of these practices will have to be addressed appropriately if herbs production is brought to commercial scale.

Issues and Concerns in Building Resilient Livelihoods

Herbs farming is expected to help build resilient livelihoods. However, there are concerns that need to be addressed if only to convince farmers that it really is, particularly because herbs were not grown at a commercial scale before.

Lack of adequate water supply. In Brgy Bondolan, water comes from a water impounding system. When there is no rain, then there is no water for the farms. In Brgy Pase, water comes from the jetmatic pump, but the supply is too little. In Brgy San Nicolas, there is no pump. Moreover, the source of water requires the men and women to carry pails of water to the plots. Watering the plants is done at least 2 times a day. As the dry season is just around the corner, the farmers worry about the supply of water.

No clear market for the dried herbs. Male and female farmers report that the market for herbs is not clear to them. Hence, they worry if ever they will really earn from herb farming. Some members of the association are not active because they are discouraged about the market.

Kung sakali mag-herbs ako, meron bang bibili? (In case I produce herbs, will there be buyers?)

Kung walang babagsakan, wala kaming makakain. (If there is no ready market, we will be left with nothing to eat.)

Ang alam naming na buyer ay sa peppermint lang. Yung ibang herbs, hindi makwartahan. (The buyer that we know of is for peppermint only. For other herbs, there is no money.)

Women-farmers who were able to dry their produce have sad experiences in marketing dried herbs. Until now, they are waiting for updates.

Binigay naming yung dried tarragon. Hanggang ngayon wala pang info sa bayad. Maghahanap pa daw ng buyer. (We gave our dried tarragon. Until now, we do not have information about the payment. We heard that they are still looking for a buyer.)

Yung dried peppermint naming, hindi daw pumasa sa moisture content. Kung sinabi na failure, saan hindi na naming dinala sa Iloilo. Hanggang ngayon, hindi pa kami nabayaran, pero hindi naming ibinalik sa amin yung aming product. (Our dried peppermint accordingly did not pass standards for moisture content. Had we been told about it, we would not have brought our products to Iloilo. Today, we have not been paid, nor has the product been returned to us.)

Ang dried tarragon namin ay hahanapan pa daw ng prospective buyer. Kaya ang ibang members ay hindi na magharvest. Pero mamatay din pag matagal na hindi maharvest. (A prospective buyer for our dried tarragon will still have to be identified. That is why, some of our members are not going to harvest their tarragon. However, if they do not harvest on time, the tarragon might die already.)

May delivery kami noong Jan 29. Hahanapan pa daw ng buyer. (We had a delivery last Jan 29. They will still look for a buyer.)

Pagkatapos ng GAP training, wala nang buyer (After the GAP there were no more buyers.)

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Minsan, meron order ng stuffed toys na hindi namin nakaya. (There was an occasion that there was a large order for stuffed toys but which we could not possibly meet.)

Lack of drying facility. If farms are to expand, then the drying facility may have to follow.

Maintaining product quality. From harvest to the market, the farmers worry about how to retain the freshness of the herbs. Similarly, questions on how to produce quality dried herbs needs answers.

Uncertainty of production volumes. Because of the problem on water supply and the drying facility, the farmers are uncertain of the volume that they can produce. RIAM wants to buy 100k per week or 100 tons per month of fresh peppermint. The Federation is hesitant to sign a contract because the leadership is uncertain if the member-farmers can deliver the volume needed and at the right time.

No database on the size and nature of the market. The demand and supply side for herbs have to be established in order to facilitate search for investors, product-market matching, and forecasting.

Lack of negotiation space in the market. Both male and female farmers, based on the experiences that they shared (above) obviously lack the negotiating space in the market. In a scenario where there is one or very limited buyers, the farmers who may have planted and harvested at the same time will be flooding the market with the product. Hence, the farmer is left with no choice but to accept the terms of buyers. There is a federation and there are smaller associations, yet these have no negotiating spaces since they, too, are uncertain about their capacity to deliver.

Strengthening the Value Chain

Strengthening the herbs value chain means addressing the concerns of the herbs farmers. The bottom line is to show that the sector has potentials for success, has potential for income generation, has the widest reach in the economy, and has prospects for expanding markets.

Input Provision

- *Adequate water supply.* Aside from being adequate, water supply should be located near the farms such that it does not result to practical gender needs like fatigue and/or body aches to women who will fetch the water and carry the same to their farms. Moreover, should farms expand, then the water supply should be able to address this. Water sprayers, shower hoses, and sprinklers may have to be installed.
- *Each type of herb has a set of required inputs.* Interventions regarding farm inputs have to be dovetailed to the peculiar needs of each type of herb. For example, stevia will need protection from frogs and insects, and peppermint will need shade.

- *Land for expansion.* While land for expansion is available, farmers are hesitant to take the plunge not unless they know that there is a ready and sustained market. Otherwise, they will prefer to continue producing what they have been producing in their farmlands

Production

- *Trainings on proper harvesting and handling techniques.* To maintain the quality of the products, farmers need training on the appropriate methods of harvesting and handling of the harvest.
- *Training on pest management and disease control.* The training should be herb-specific since there may be peculiar pests/diseases that affect certain types of herbs.
- *Protective gears and provision of farming tools.* Women-farmers have reported about their prolonged exposure to the sun everyday. They are also exposed to other hazards in the farm while at work. They will need gloves, masks, hats, boots, among others. The husbands are in non-herb work which, today, are proven to be more stable sources of income.

Processing

- *Trainings on drying methods.* At present, 7 to 8 kilos of fresh peppermint can produce a kilo of dried peppermint. Training the farmers on correct drying techniques, especially amid climate variability is necessary. Farmers will also have to be taught on how to detect the moisture content of the dried herbs so that they do not end up bringing the goods to the buyers, only to be turned down because drying is below standards. A drying facility, if applicable, need to be provided.
- *Warehouse.* A warehouse where to put in stock newly harvested herbs, herbs that are in the process of drying, the dried herbs and others which are at different stages of processing is needed. It can also serve as a work area for the women farmers who do the packaging and labelling.
- *Packaging and labelling.* This is important particularly for a new product in the market. The women can be trained on this aspect.

Trading/Marketing

- *Forward contracts.* In order to be sure that there will be a market for the herbs, forward contracts may be forged. A handholding of government with the MSME will be helpful.
- *Define the markets.* Market identification per type of herb and in what product form is crucial. The behavior of each market has to be studied. Is the target market the food industry, the

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pharmaceuticals, or the household? Will it be the processors or the traders or the households? Will it be for domestic or international consumption?

- *Creating the demand for herbs.* Herbs and its various product forms is relatively new in the domestic market. Consumption patterns of an ordinary Filipino household may not include herbs, much less those that are produced locally. Therefore, product promotion strategies have to be well-thought of.
- *Benchmarking visits to related industries.* Sharing of experiences and best practices will enhance the herbs development planning process.

For the VC enablers, they can pick-up from any number of the abovementioned intervention variables for herbs VC promotion. Financing institutions are needed to provide the start-up capital. Training institutions, on the other hand, have a lot to contribute in capacity building --- from skills trainings to trainings on entrepreneurship and business management, to product development, and the transfer of technologies in production, processing and marketing.

For the LGUs, a Herbs Development Plan with the corresponding budget is in order so that this emerging industry will be given that big push forward and the sustained support to keep it going as a source of income particularly for women farmers.

Another area for intervention is enhancing the VC governance through the strengthening of meso level partners and enablers. While there are the associations, but they need to link to chambers, industry groups, and the forward and backward linkages of the herb industry.

5.5 Seaweed Value Chain

Seaweeds is one of the most important aquaculture commodities of the Philippines being one of the major exporter in the world. The Visayas region accounts for the 25% of total production of the Philippines. The potential for seaweeds production is actually high that global and domestic production cannot meet the increasing demand. At present only 58,624 hectares or only 23 percent of total potential area of 255,000 hectares in the Philippines are used for seaweed farming. The province of Iloilo produces only less than 1000 metric tons per year compared to its neighboring provinces in Visayas; Cebu with over 104,000 metric tons.¹⁵

Table 28. Major Fishery exports (value) 2013

Commodity	Quantity	FOB value ('000 \$)	FOB value ('000 Php)
Seaweeds	55,810	218,652	9,275,227

¹⁵ Philippine Statistics Authority, June 2015.

Seaweeds and other algae	22,495	39,475	1,674,541
Seaweeds for human consumption	12,587	5,268	223,485
Carageenan	20,728	173,909	7,377,201

Source: Bureau of Fisheries and Aquatic Resources, 2013

Seaweeds are good source of colloidal materials which are used as gelling agents, emulsifiers, stabilizers, in pharmaceutical, cosmetic and food products. They also constitute an important food item, fertilizer and animal feed. Seaweed production can be done all year round but peak months for good harvest is from November to July. Harvesting is continuous after 45-90 days the seaweeds is planted.

In the municipality of San Dionisio, Iloilo, seaweed farming was introduced during the 1980's by BFAR and the provincial government. This was piloted in barangays Sua and Tiabas which became the primary sources of inputs (seedlings) in San Dionisio. However, the onslaught of Typhoon Haiyan affected their farms. However, support for the rehabilitation of this livelihood poured in from both government and non-government organizations such as CARE Philippines, Philippine Business for Social Progress [PBSP], International Rescue Committee [IRC] and Philippine National Red Cross [PNRC].

Currently, CARE Philippines is assisting eleven (11) fisherfolks association and 1 federation in barangays Sua, Tiabas, Nipa, Odiongan, Poblacion, Agdaliran, Naborot, Borongon, Cubay, Pase and Bagacay in San Dionisio expressed their interest to participate in the project and in the process of reorganizing their groups. Around 5.2 million financial grant has been provided to support the production of seaweeds.

Table 29. CARE assisted organizations in San Dionisio, Iloilo (by location, number of beneficiaries and grant)

	Name of Organization	Barangay	Number of Direct		Total Grant	
			Beneficiaries	Male		Female
1	Borongon Fisherfolks and Cooperative Organization	Borongon	93	93	ni	264,580.00
2	Nipa Fisherfolks Association	Nipa	47	42	5	153,680.00
3	Odiongon Fisherfolks Association	Odiongan	29	26	3	536,150.00
4	Sua Rural Improvement Club	Sua	65	65	ni	184,920.00
5	Tiabas Seaweeds Grower Association	Tiabas	272	266	6	771,990.00
6	Bagacay Fisherfolk Association	Bagacay	40	34	6	165,000.00
7	Cubay Seaweeds Grower Association	Cubay	90	80	10	365,000.00
8	Naborot Fisherfolk Association	Naborot	40	27	13	165,000.00

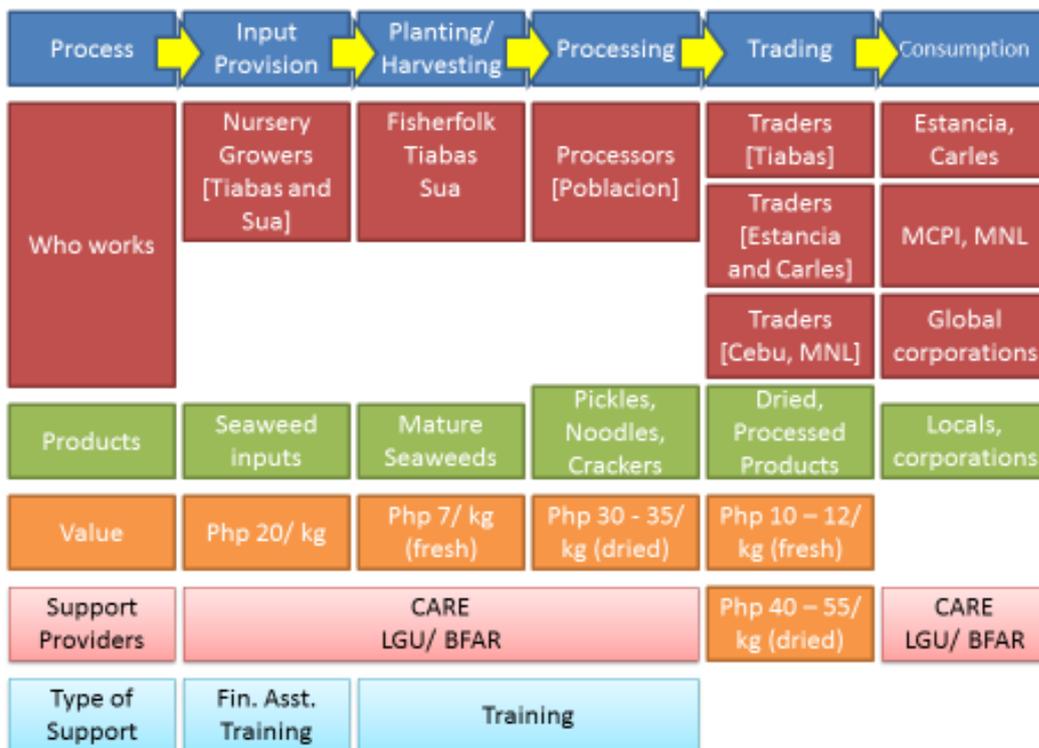
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9	Agdaliran Fisherfolks and Farmers Association (AFFA)	Agdaliran	99	95	4	401,000.00
10	Agdaliran Women Rural improvement Association	Agdaliran	68	3	65	277,000.00
11	Punta Bularan Fisherfolk Association	Poblacion	35	30	5	145,000.00
12	San Dionisio Multi-Sectoral Integrated Association (SDMSIA)-- 12 associations, 5 individual staff	Pase	1185	687	498	1,740,500.00
TOTAL			2063	1448	615	5,169,820.00

Gender Roles in the Industry Value Chain

Seaweeds farming is generally a family activity in most coastal barangays but most activities are carried out by males. Apart from seaweed farming, most families are also engaged in other livelihood such as fishing, farming (rice and vegetable) and trading (sari-sari stores). Examining the industry value chain would reveal concentration of activities done solely by women, men and both. Women fisherfolks continue to challenge themselves by taking on activities traditionally-done by males such as construction of monolines.

Figure 8. Value Chain of Seaweeds in San Dionisio, Iloilo



Farm Inputs

The preparation and fund sourcing for farm inputs is a shared activity and responsibility of both women and men involved in seaweed production. Seaweeds seedlings are primarily sourced out by men from established nursery growers in Nipa, Sua and Tiabas which sells at Php 20 per kilogram. Meanwhile, buying of ropes, nylon and Styrofoam box from local hardware stores in Estancia are usually done by women as the purchase of these materials can be easily included in women's shopping list when they go to the market. Other inputs such as floaters which uses recycled PET bottles are gathered by male and female children while bamboo poles are gathered by men.

Farm Activities

During farm preparation, males organize the materials and labour needed to establish the farm. Proper site selection is very crucial and the most difficult task when starting a seaweed farm. In San Dionisio, an expert can tell if the farm is was established by male or female fisherfolk. Farms far from the shorelines are established by men while farms established nearer to the shore are usually identified with women for the simplest reason that women lack the basic life skills of swimming and lacks the confidence to build their farms in a suitable area which later on impacts farm management activities.

It is the men who usually goes out to the sea to construct the monolines. Bamboo poles are installed by driving the posts one meter below the sea floor using mallets or wood blocks or *pagusok*. This would require physical strength. Women expressed difficulty in doing this task. Often, poles that were not properly installed would float after some time. This is where men comes in to help. In some organizations, they practice *bayanihan* during farm site establishment ensuring there are men in each of the groupings to help out especially the female-headed household members. Most of the organizations assisted by CARE adopted the bottom monoline method as this is cheaper to establish, easier to maintain and not so prone to surface weather conditions as compared to other methods.

While the sourcing of seedlings is usually done by men, the cleaning or removing of dirt, epiphytes and other clinging materials using seawater is done my women assisted by children.

The setting up of monolines can be done by women without supervision from men. Nylon wires are tied at the both ends of the posts parallel to each other considering with required distance of the line from the bottom. Seedlings are then tied to the lines, well-balanced and properly spaced for growth.

Maintenance of seaweeds is done during low tide and usually done by males which requires diving and collecting potential contaminants and women sometimes helping out when there is free time. But there are instances when some women are forced to bring their young children to the sea especially when no family member is available to take care of them. Mothers put their babies in Styrofoam box or basin with string tied to their waists while they tend to their seaweeds, putting their children at risk of drowning.

Fresh seaweeds are sold at Php 12-20 per kilogram. But since there is limited buyers for fresh seaweeds and the demand is seasonal in nature, seaweeds are generally sold in dried form.

Drying or first level processing of seaweeds is usually done by women and children so that men could do other economic activities like fishing. Seaweeds are then left out to dry under the sun for about two to three days near the shoreline before being sold to buyers/traders. Dried seaweeds are sold in San Dionisio traders at Php 25-35/kg and between Php 35-40/kg in Estancia. MCPI, a processor from Cebu also buys dried seaweeds from consolidators for Php 35-65/kg depending on the quality.

Ensuring the quality of seaweeds is also a challenge to women. Often, their dried seaweeds were rejected if required quality parameters are not met such as: moisture content, gel strength, viscosity, yield and presence of foreign matters. Hence, there is a need to capacitate women on proper techniques of drying including construction of drying facility to ensure quality produce.

Trading is done by both men and women in the community and whenever there is an opportunity to sell fresh seaweeds. Traders of dried seaweeds are men in general but women are slowly taking on roles in marketing including price negotiation especially when men or husbands are pre-occupied with meetings and other economic activities. Dried seaweeds are traded to processing plants in Cebu and Manila.

Processing is basically a women's domain. Seaweeds can be further processed into noodles, candies, crackers or pickles. Rural Improvement Club in San Dionisio has already received processing trainings from BFAR and has only been processing occasionally by order. Pickled seaweeds in 350ml are sold at Php 50 while 220ml are sold at Php 30.

There are areas along the value chain where both women and men must build knowledge and skills to maximize their participation in the activities from input to trading.

Social Cohesion

Among the various indicators of social cohesion, three came out as displayed by both women and men in seaweed. These are: pro-social behavior, trust, and meaningful participation in community affairs.

Pro-social behavior and trust

Most of the associations assisted by CARE did not have seaweed farms before. Hence, pro-social behavior and mutual trust is high. Fisherfolks depended on each other's knowledge and skills. Fisherfolks assist each other during the planting preparation especially women.

Meaningful Participation

Both men and women farmers participate in community decision making, particularly those called by the Barangay Captain. 90% of respondents say that decisions on matters concerning the farm

enterprise is jointly done by male and females. Only 10% says that men alone makes the decision. Women feel that they are not discriminated in the work area except when women are replaced by husbands during their monthly menstrual period where they are constrained not to go to the farms.

Access to Financial and Business Development Services

Both women and men expressed having equal access to financial and business development services. However, most men/husband do not attend the trainings provided by BFAR or private organizations. They usually ask their wives to represent them. Foremost reason cited was their lack of time as they are busy doing other farming activities and community activities since some of them are barangay officials.

Knowledge, Skills and Practices in Business Operations

Women are the ones who look for creditors. Include in the reproductive roles of women is managing the household purse. With this, the responsibility of looking for opportunities to avail grants or loans rests with her and both husband and wife agree that it is a woman's task. While both husband and wife agrees to avail of loan, it is the husband who finally decides on the utilization of the money. Again, the strong patriarchal system that also manifests in coastal communities has strong influence on this practice.

It is the women who attend meetings and seminars. The men have better use of their time than to attend whole-day meetings. If they are not in their seaweed farms, they are somewhere else offering their labor services for hire for P150/day. This option is not open to women. They cannot be in paid work while the men attend meetings.

In the first case, it is noted that once women are home, the men ask their wives what transpired during the meeting. The technology/knowledge is, thus, transferred from the woman to the man. There are other reasons why men are less likely to attend meetings and trainings:

Issues and Concerns in Building Resilient Livelihoods

Among the major issues and concerns is concentrated on the production side considering the weather changes. El Nino has affected seaweeds with "ice ice", a disease condition of seaweed caused by changes in salinity, ocean temperature and light intensity cause stress to seaweeds, making them produce a "moist organic substance" that attracts bacteria in the water and induces the characteristic "whitening" and hardening of the seaweed's tissues.

Strong typhoons pose threat to the seaweeds farms as well. Risk reduction measures were implemented by both women and men such as the use of perimeter net; placing seaweeds at the bottom of the seas where water temperature is more stable and changing variety of planting materials.

There is a need to build if not strengthen support mechanisms especially for women with young children or female-headed household with sick or elderly member. Associations has to device policies or schemes to provide needed assistance by these women for them to be able to maximize participation in all VC functions.

Strengthening the Value Chain

Input Provision

- *Enhancing women's life skills.* One of the important life skills women lack is swimming. This is seen as an important input so that women can build their confidence and increase their participation in the seaweeds value chain.
- *Support mechanism and practices for women.* Female headed household or women with young children needs support mechanisms such as access to daycare, implementation of self-help practices in the associations.

Production

- *Training on farm management.* Much needed support in terms of capacity building is need by both women and men fisherfolks since this is their first time to venture in such initiative. Likewise, they have to be prepared to address climate change related challenges such as “ice ice” and other diseases.

Processing

- *Training on seaweed processing.* There have been trainings conducted by BFAR which were participated by women. Increase also involvement of men in this VC function.

Trading/Marketing

- *Negotiation skills.* As new entrants to this chain, there is a need to build self-confidence to negotiate in the market. This entails access to information about alternative markets and marketing techniques to both women and men.
- *Stable markets.* Continuous support from enablers particularly BFAR and the LGU is much need to boost this industry in Iloilo particularly identifying regular buyers.