

# IMPLEMENTATION PLAN

## Year 1



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## **SECTION 1: PROGRAM PURPOSE**

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### **A. Brief summary of the proposed program, its goal, and its objectives**

Banana is among the most important fruit crops in Mindanao, and in the Philippines, as a whole, in terms of volume of production and export earnings. 75% of the production of banana comes from Mindanao with about 41% grown in Southern Mindanao. Management of banana farms is characterized by dichotomous nature. On one side is a highly managed cavendish banana farm which uses the state of the art technology in growing banana as exemplified by large plantations catering to export markets. These commercial plantations take up about 10% of the total land area planted to banana. The remaining 90% of the banana areas are small family farms where native banana varieties such as the Cardava are cultivated together with other staples and cash crops. Cavendish banana plantation earns an average of about PhP 335,000.00 per hectare per year while the small cardava banana grower generates an average annual income of about PhP 65,000per hectare (monocropping).

About 35% of the total cardava production in Mindanao is processed into banana chips and during the recent months is being also exported as fresh. The remaining 65% are sold fresh in wet markets. Generally, cardava bananas for local consumption do not meet the specifications of processors and with farm gate prices lower than the process grade bananas. There are about 26 banana chips processor-exporters in Mindanao with individual capacity ranging from 20 to 60 tons per day, but are currently underutilized either because they are not able to secure enough export orders or when they receive orders they do not have the supply of cardava bananas and could not cope up with the volume requirements. Only three processors are HACCP certified. Micro processors, mostly household-based and agrarian reform communities operating with make-shift facilities, have an average of 4 tons annual production sold to the local market. Demand for banana chips in the local markets is very weak primarily due to poor product presentation vis-à-vis more established brands of potato chips and other snack food of similar formats.

There are good market opportunities and long-term potential on which to anchor optimism for the processed cardava/banana chips industry to significantly contribute to promoting growth with equity. In 2005, processed banana or banana chips amounted to \$35.5 million. Mindanao produced 90% of the country's banana chips production. Exports have been growing by 8.6% p.a. on volume and 6.9% p.a. on value from 1996-2005. It is forecasted that the banana chips international market can absorb around 10% to 15% more per year growth. The very large population in the Philippines of persons under 18 years of age, coupled with increasing consciousness for healthy snack food and government programs promoting the health benefits of eating banana and its by-products, provides opportunities to develop the local market for banana chips and its variants. .

For the Mindanao chips industry to take advantage of market opportunities and, consequently, contribute to the improvement of living conditions of its populace, it has to contend with issues critical to improving and sustaining its competitiveness. One major threat to the growth of the industry is its price competitiveness and its ability to maintain quality particularly for large volume orders. Meetings with key EU importers also indicated that the product is fast becoming a commodity with price as an important issue (price fluctuations range from 1% to 5%). Importers generally switch suppliers between Philippines and Thailand from time to time primarily due to price and quality considerations. Feedbacks indicate that Thailand is becoming preferred supplier in terms of price, flexibility in payment terms, reliability, and their ability to offer a wider range of goods in similar categories including strong support and relations between the private sector and government.

Competition is also intensifying from other suppliers like Vietnam and Thailand in key export markets like China. Markets are increasingly concerned with the specifications of both products and processes further back along the value chain in a number of different ways: a) quality and safety - based upon product and process controls; b) conformance with social and environmental standards; c) traceability and authenticity; d) reliability and guaranteed supply in order to avoid stockouts; e) just-in-time delivery; and f) product differentiation and innovation as a means of adding value and margins. To date, compliance of food safety and other product/process standards in the Mindanao banana chips industry is weak along all links in the chain.

The invigoration of the rural banana communities is conditioned on improving the capabilities of rural communities to increase their productivity, access more lucrative markets, and obtain shares in marketing and processing activities as a means of obtaining larger share of the value in the chain. In this context and on the premise of promoting the development of the banana industry that benefits the poor, the B-ACE program will focus on improving the competitiveness of the processed cardava banana subsector both in the local and export markets.

The goal of the program is to enhance the competitiveness of the processed cardava/banana chips industry while promoting broad-based growth that involves and benefits the poor in a sustained way. The B-ACE program takes on a threefold challenge: a) improving the competitiveness of the processed cardava/banana chips in global and local markets; b) promoting the gainful and sustainable participation of micro enterprises and smallholders in the value chain (depth of benefits); and c) increasing the participation (number) of micro enterprises and growers in the value chain. Specific objectives of the program are the following:

- a) To enhance capability of local government units to design and/or implement better plans and/or policies for efficient and high impact support for the banana industry
- b) To facilitate increase and stabilization of supply base of cardava banana for chips industry through improved quality and productivity of cardava farms including diversification to organic/all natural bananas.
- c) To facilitate the set-up of value chain quality system infrastructure covering aspects on food safety standards and traceability.
- d) To facilitate the improvement of existing inter-firm cooperation as a means of enhancing levels of information, innovation, upgrading, and compliance to market requirements/standards
- e) To strengthen support markets to provide services/products that would facilitate upgrading of value chain players parallel to development of systems to ensure sustained access
- f) To support the development and introduction of all natural banana chips and other product variants.
- g) To support the development of a marketing campaign for Mindanao's natural banana chips/processed banana products
- h) To promote the profitable and sustainable use and management of natural resources through market-based mechanisms
- i) To support the strengthening of private-public partnerships as mechanisms for the promotion of unified development of the processed banana industry with social responsibility and sustainable business growth as framework for collaboration and benefit distribution.

The B-ACE program hopes to increase incomes by an average of 30% within a period of three years. The benefits to the majority will derive from greater integration into value chains resulting in higher and more stable income, improved capabilities to get a higher share of the margin, and diversification of options.

## **B. Major Changes or Adjustments made after the Award/Stakeholders Workshops**

- A focus on the development of the local market parallel to improving competitiveness in export markets. This is to minimize seasonality of production as well as gradually reduce dependence on export markets and, consequently, lessen tendencies to be price takers.
- Improvement and stabilization of supply base through productivity and quality enhancements and widespread info dissemination of supply requirements vis-à-vis demand

## SECTION 2: VALUE CHAIN ANALYSIS

### A. Actors/Subsector Map

Players	Description
Importers/Buying Agents	<p>In the EU, agents and importers largely control the trade of banana chips. They perform various roles --- packer, refiner of the product, processor into final product, re-exporter. Main buyers of these importers/buying agents are: dried fruit industry, breakfast cereal industry, and other food industry. Banana chips comprise about 10 to 15% of the sales of EU dried fruit importers/buying agents.</p> <p>The banana chips and other processed banana variants are almost always diverted to the industry for processing, thus putting pressure on prices with basic/standard quality and food safety compliance as requirements. Another important aspect is reliability and promptness of delivery. Chips are sold in two forms: whole and broken with price differences of about US\$ 0.05. Importers selling to retail markets require higher quality and added features such as Bio and all natural.</p> <p>The bigger European import companies order an average of 25 40 footer containers of banana chips per year per company while medium and small importers order in average 10 40 footer containers per year per company. They shift between Thailand and Philippine suppliers.</p> <p>Based on inquiries generated during the recently concluded SIAL Trade Fair in Paris, many of the importers are diversifying into other dried banana formats --- dried whole banana or bananas dried whole and cut crosswise to produce bite size pieces, etc. Likewise, there is a growing preference for banana chips dried without anti-oxidant preservatives (a shift from the traditionally preferred golden brown to natural brown color).</p> <p>US markets offer better prices than the European market. China market buys at the lowest price.</p>
Philippine supermarkets and fast food chain	<p>For Philippine supermarkets, the banana chips are among the slow moving products and, thus, no significant orders are made. Likewise, presentation is poor compared to similar imported products in the same categories. There is a general preference for “potato chips type of products” rather than the usual presentation of banana chips.</p> <p>Basic requirements for suppliers: GMP/permit to operate and bar code which many of the processors are not able to comply with. Suppliers would have to invest in the promotion of the products and in development of similar product formats such as the potato chips.</p>
Exporters	<p>About 26 banana chips export companies in Mindanao. Primarily sell broken and whole chips. Only 3 companies are HACCP certified.</p> <p>Production capacity of each Mindanao firm ranges from 20 to 60 tons per day. Most companies are generally operating below their capacity either because they are not able to secure export orders or when they receive orders they do not have the supply of cardava bananas and could not cope up with the volume requirements.</p> <p>Some companies have tried the local market but were not successful as present form is not appealing to consumers.</p>

Players	Description
	Exporters are generally able to offer good prices for cardava banana when coconut oil prices are low. They dictate the wholesale buying price for cardava for chips based on their export contract price. Usually, the larger processors are the ‘price-makers” in the local scene.
Micro Processors/ Micro Banana Chips community groups	<p>Household-based individual and community-based processors (usually offshoot of various development programs from donors and government) selling to local markets. Generally, they only make money when there are trade fairs. Some supermarkets tried to sell their products but the micro processors end up with losses --- spoiled products due to poor packaging, slow turnover (returns after consignment), etc.</p> <p>Many of these micro processors are agrarian reform communities (generally with weak organizational structure and dependent on government assistance) trained by government agencies in banana processing. They make use of makeshift cooking facilities and areas. Poor processing facilities are compensated with use of premium quality cardava which is more expensive. Average individual production is 4 tons per year --- the quantity that they are able to sell within locality and trade fairs.</p> <p>More than 10 municipalities identified as banana processing One Town One Product (OTOP) areas.</p>
First Fry Communities	<p>Loosely organized group of households usually managed, financed, and operated by traders (of fresh cardava) who expanded into first frying. Agrarian reform banana communities organized by government can be tapped as first frying communities including growers. Generally, low awareness about the benefits and potential to go into banana semi or processing rather than directly producing end products.</p> <p>When there are no orders, these households are engaged in various survival livelihood activities.</p> <p>Relatively a new concept for traders, communities, and exporters.</p>
Traders	<p>The following are the different types of traders depending on their scope of operations:</p> <p>Assembler – buys from farmers in two or more barangays and usually sells to distributors or processors</p> <p>Barangay agent – hired by processors or municipal agents to scout and procure banana from farmers in a particular barangay; paid on commission basis</p> <p>Distributor – usually based in wet markets with assemblers and/or farmers as main suppliers; sells to public market fruits and vegetable vendors and banana cue vendors/stalls</p> <p>Municipal agent – same as in barangay agent but scope of operations covers an entire municipality; hires barangay agents to do the procurement</p> <p>Contractor – same as the assembler but operates in bigger scale and volume</p>
Fresh cardava retailer/Market vendors	Usually vendors in public/wet markets; operates on small scale basis (on the average carries an inventory of 1 ton of fresh cardava for 3 to 5 days); buys from farmers and distributors and sells retails to end consumers
Growers	<p>Generally individual operations and backyard farming for cardava. There are more than 30,000 households engaged in banana growing in target regions: Northern Mindanao, Southern Mindanao, and Caraga</p> <p>Majority of the farmers practice banana – coconut intercropping with an</p>

Players	Description
	<p>average of 267 hills per hectare. Planting density is way below the ideal of 400 hills per hectare (intercropping system), Current average bunch weight is 50% below the possible weight of 35 kg. Average annual income from cardava banana is currently at PhP 42,795. Under a GAP compliant intercropped farm with medium maintenance, a farmer can potentially earn PhP 90,000 per hectare per year at farm gate price of PhP 4 per kilo.</p> <p>Income from cardava provides farmers with the weekly cash flow for household expenses.</p> <p>Generally selling based on price offers. During peak season, growers are price takers and willing to sell below break even points.</p> <p>In terms of education, about forty two percent (42%) of the farmers have had some years of elementary education, fifty percent (50%) have attended high school and only eight percent (8%) have entered college. Farmers from ethnic tribes have the lowest educational level.</p>

**Notes on Map**

- Some degree of preferred buyer-supplier relationship exists. But, in general, spot market transactions are practiced with price as the main factor.

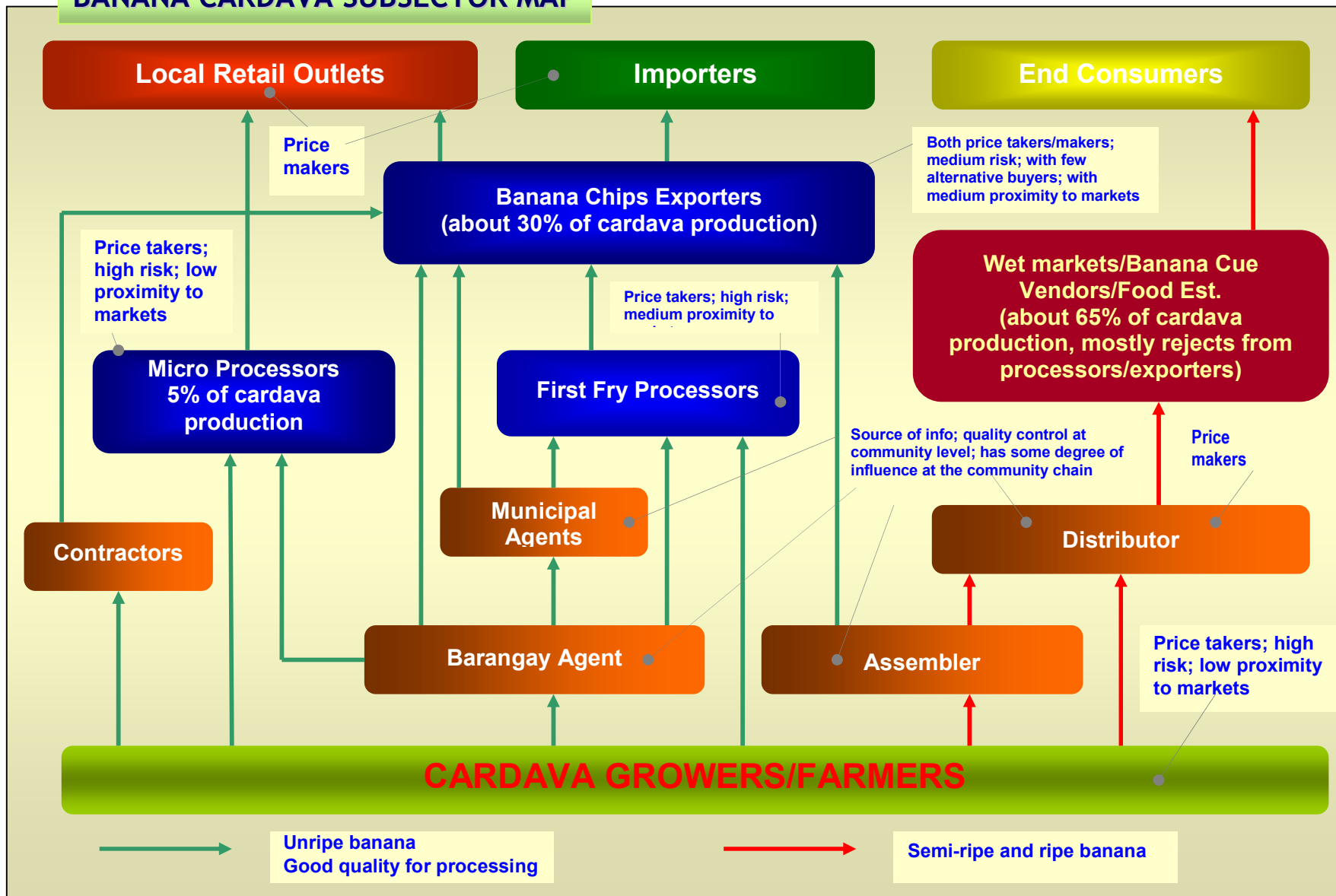
Most farmers prefer to sell their produce to those who provide loans and advances. They also give priority to buyers who offer a higher price. Main sources of disagreements between farmers and traders are the reliability of weighing scales and quality judgement. For procurement per hand basis, the issue is on the manner of the counting of the hands (e.g., three medium-sized hands counted as two and two-small sized hands as one).

- On the average, about 25% of bananas delivered to processors are rejected. If the bananas were delivered by farmers, in many cases they prefer to leave the rejected bananas rather than spend for transportation to bring these back to the farm or to a distributor.
- Distributors/agents/assemblers usually get from the farm the cardava bananas that cannot be processed anymore (ripe or undersized). Banana stocks which do not meet the specifications of processors are bought at a lower price except during peak season (December to February).

Grade	Specifications
Banana for chips	Semi-mature (90-105 days), unripe, green color of skin, light yellowish color of flesh, not less than 3 inches in length
Banana for the local market	Mature/over mature, semi-ripe/unripe, yellowish color of flesh, unblemished or with slight blemishes, less than 3 inches in length

- Local market cannot absorb the large volume supply of cardava banana when there is a slow down in banana chips production, thus creating a market glut. On the other hand, during peak banana chips production season, there is a shortage of supply of banana of processing grade. During the stakeholders' workshops, farmers do not fully understand demand requirements of exporters --- it is very rare for these two players to interact. Traders have some degree of understanding of the demand and supply requirements but generally depend on signals received from their buyers.
- Most distributors practice *alsada* by letting the retailer sell fresh bananas at the prevailing price on delayed payment basis, with the retailer getting a percentage of the sales. Another practice is trading by *rachada* or using retailers to facilitate the sale of day-old cardava at discounted prices but on consignment basis. The seller is paid a commission.

# BANANA CARDAVA SUBSECTOR MAP



- The wholesale buying price of cardava for local consumption is based on the prevailing price in the market. This is usually determined by the traders who are the main suppliers of banana traded in public market. As bananas ripen, the price becomes lower.
- Processors dictate the wholesale buying price of cardava for chips. The price is based on their export contract price and the prevailing price of coconut oil (which is a main cost center).
- Assemblers/agents offer a higher price if the assembled quantity of cardava exceeds one ton.
- Banana chips are currently being exported to 32 countries with the biggest shipments going to the Europe, China, and the United States. Growth during the last 5 years has been mainly due to the expansion of the China market.
- After a decline of about 3% in 2005 over 2004 figures, export volume from Mindanao during the first quarter of 2006 has increased by 245 tons compared with the same period in 2005. It is forecasted that the banana chips international market can absorb around 10% to 15% more per year growth.

<b>Export Volume of Banana Chips In Metric Tons</b>						
<b>Regional Bloc</b>	<b>2005</b>		<b>2004</b>		<b>2003</b>	
	<b>Volume</b>	<b>% Share</b>	<b>Volume</b>	<b>% Share</b>	<b>Volume</b>	<b>% Share</b>
America	6,344	18.52	6,992	19.73	4459	17.15
Europe	12,721	37.14	11,770	33.21	8,812	33.90
Japan/Australia	2,056	6.00	2,236	6.31	1,772	6.82
China/Asia	12,717	37.13	14,001	39.50	10,737	41.30
Middle East	404	1.18	377	1.06	213	0.82
Others	8	0.02	66	0.19	5	0.02
<b>Total</b>	<b>34,250</b>		<b>35,442</b>		<b>25,998</b>	

Source: Tradeline Philippines

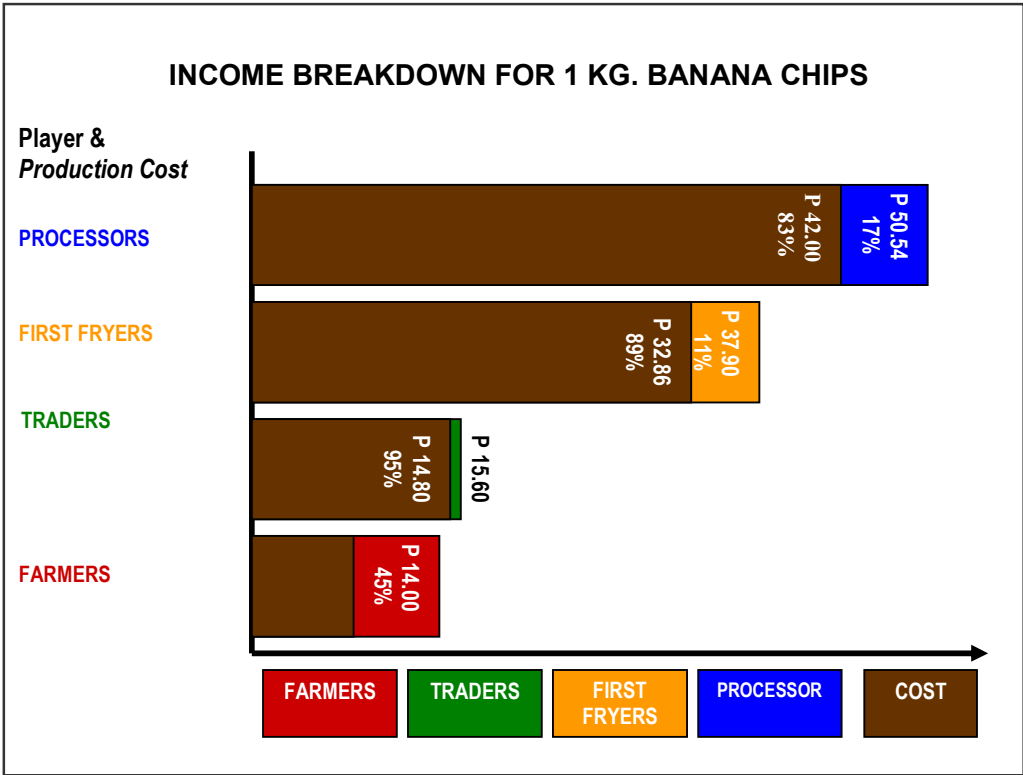
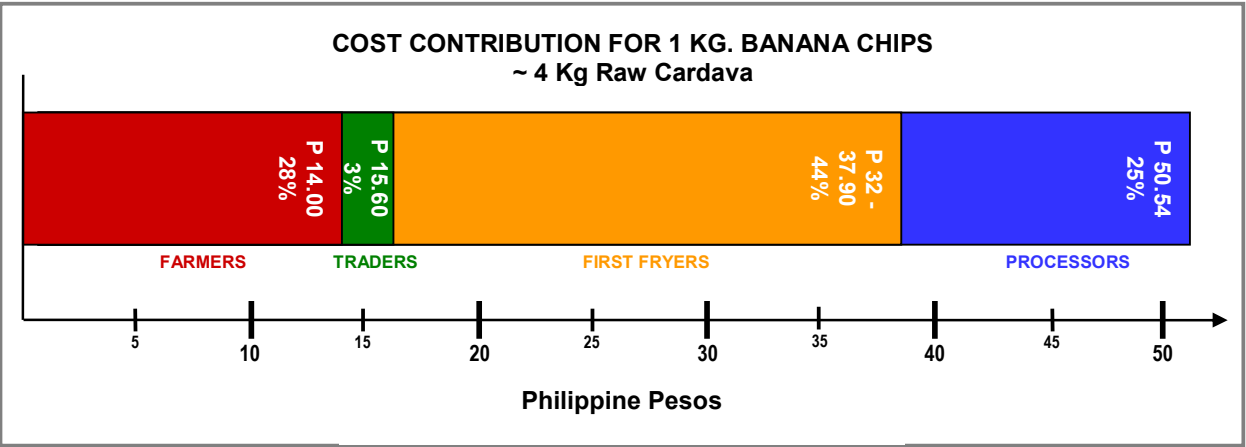
### Income and Margin Distribution

<b>Player</b>	<b>Selling Price per Kilogram [in Philippine Pesos]</b>	<b>Cost Contribution/Kilogram Chips</b>	
		<b>Amount (in Philippine Pesos)</b>	<b>%</b>
Farmers	P 3.50/kg fresh ( <i>farm gate</i> )	P 14.00	28%
Traders	P 3.90/kg fresh	P 1.60	3%
First Fryers	P 32.00 - 37.90/kg chips	P16.40– 22.30	44%
Processors	P 50.54/kg chips	P 12.64	25%

Notes:  
PhP 16.40 – cardavas purchased directly from the farmers  
PhP 22.30 - cardavas sourced from traders

One (1) kilogram of banana chips requires four (4) kilograms of fresh cardava bananas.

From the P 50.54/kg export price of banana chips, 44% (P 22.30) goes to first fryers, 28% (P 14.00) goes to the farmers, 25 % (P 12.64) goes to the processor/exporter, and 3% (P 1.60) pays for the services of the trader. First fryers contribute the biggest share of the production cost as labor is more intensive, and more oil is consumed in first frying than in 2<sup>nd</sup> frying of processors. Though traders takes the smallest percentage of the proceeds, his business cycle is very short. All his transactions from buying of fresh cardava from farmers up to delivery to processors can be completed in less than 1 day. Farmers on the other hand, need to wait 14 months to harvest from each banana seedling/follower



Farmers have the highest margin at 45% (PhP 6.28/P 14.00), Processors get 17% (PhP 8.54/PhP 50.54), First Fryers get 11% (P 5.04/P 37.90), while Traders have the smallest margin of 5% (PhP 0.80/P 15.60). Although farmers generate the highest profit, the amount or absolute value that actually accrues to an individual farmer is small for the following reasons:

- a) Volume is spread thinly among the farmers: there are 26 exporters vis-à-vis more than 50,000 cardava farmers in Mindanao. A processor-exporter typically buys 1<sup>st</sup> fried chips from 1 to 2 first fryers and maintains contact with 10 traders. Each trader sources fresh cardava from hundreds of farmers.
- b) High post-harvest losses estimated at 30% to 40% as well as % of rejects which almost wipes out profit
- c) Unstable yields

In terms of trading position, farmers also have the highest risk and are price-takers. Exporters in the local scene are the price-makers but in relation to importers have some capacity to participate but not always in favorable terms. Traders, on the other hand, have the smallest investment and usually pass increases in transportation to farmers.

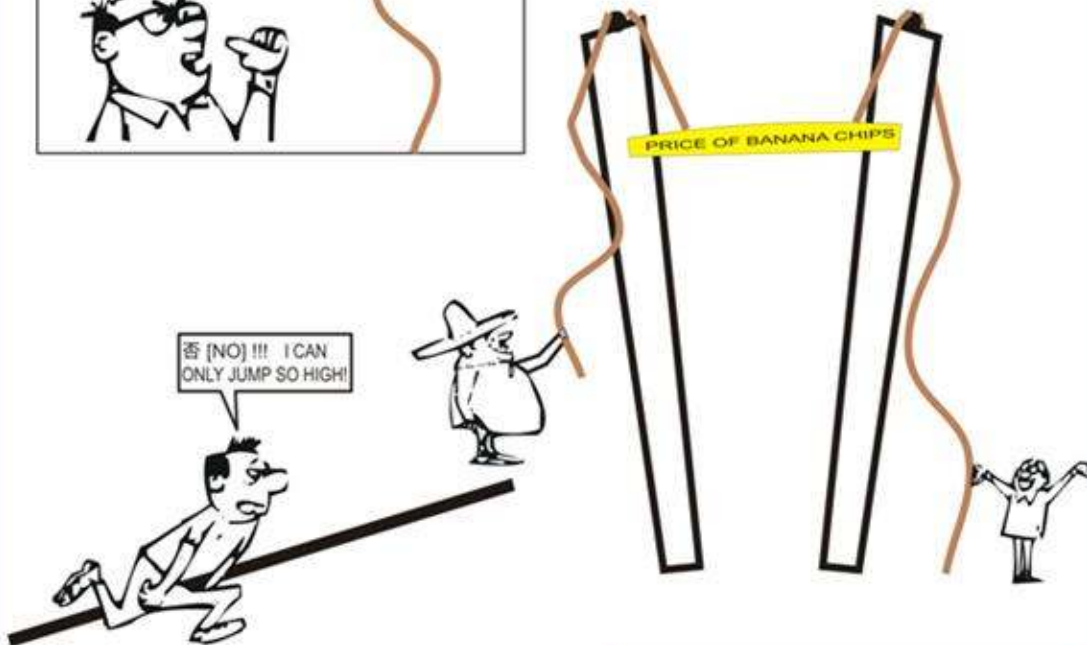
## B. FACTORS: CONSTRAINTS AND OPPORTUNITIES

The constraints and opportunities presented below were those identified by stakeholders to be most crucial and will have the greatest impact on achieving the competitiveness vision of the industry.

Factor	Constraints	Opportunities	Relationship
<b>Access to End Markets</b>	Lack of capability and capacity of industry players to comply with quality and food safety standards and other non-tariff barriers of export markets which are becoming more stringent. Parallel to this is the low awareness of the benefits of complying with these requirements.	Food safety and quality standards compliance can play a positive role in: a) facilitating market development/entry to bigger and more lucrative markets; b) providing the catalyst and incentives for the integration of the banana chips supply chains; c) facilitating the modernization of supply chain and regulatory systems; and d) linking rural communities in a positive way with the process of economic globalization.	No existing collaboration among players to ensure quality and food safety at all links in the chain.
	Prices tend to be higher than competitors due to supply chain inefficiencies.	There are existing best practices and indigenous technology that the industry can improve, update, and upgrade  Companies can shift resources to high value added tasks if procurement and marketing of fresh cardava are based on medium term transactions/contracts.	There is a prevalent lack of common understanding of standards and shared responsibility between and among players which result to costly non-value added steps such as inspection, return of rejects, and utilization of in-house capacity for re-cooking jobs as well as delays in production schedule.  Little understanding and consciousness of each individual's contribution in increasing cost of production and transaction. Generally, each one is looking after his/her own interests
	Inability of exporters to command a better price due to lack of product differentiation.  Lagging behind in product development vis-a-vis	Marketing campaign and differentiation based on a common brand and/or premium quality standards + factors such as just-in-time and prompt deliveries.	Exporters vis-à-vis importers: price takers so as to secure orders. The effects are then passed on to the whole chain.

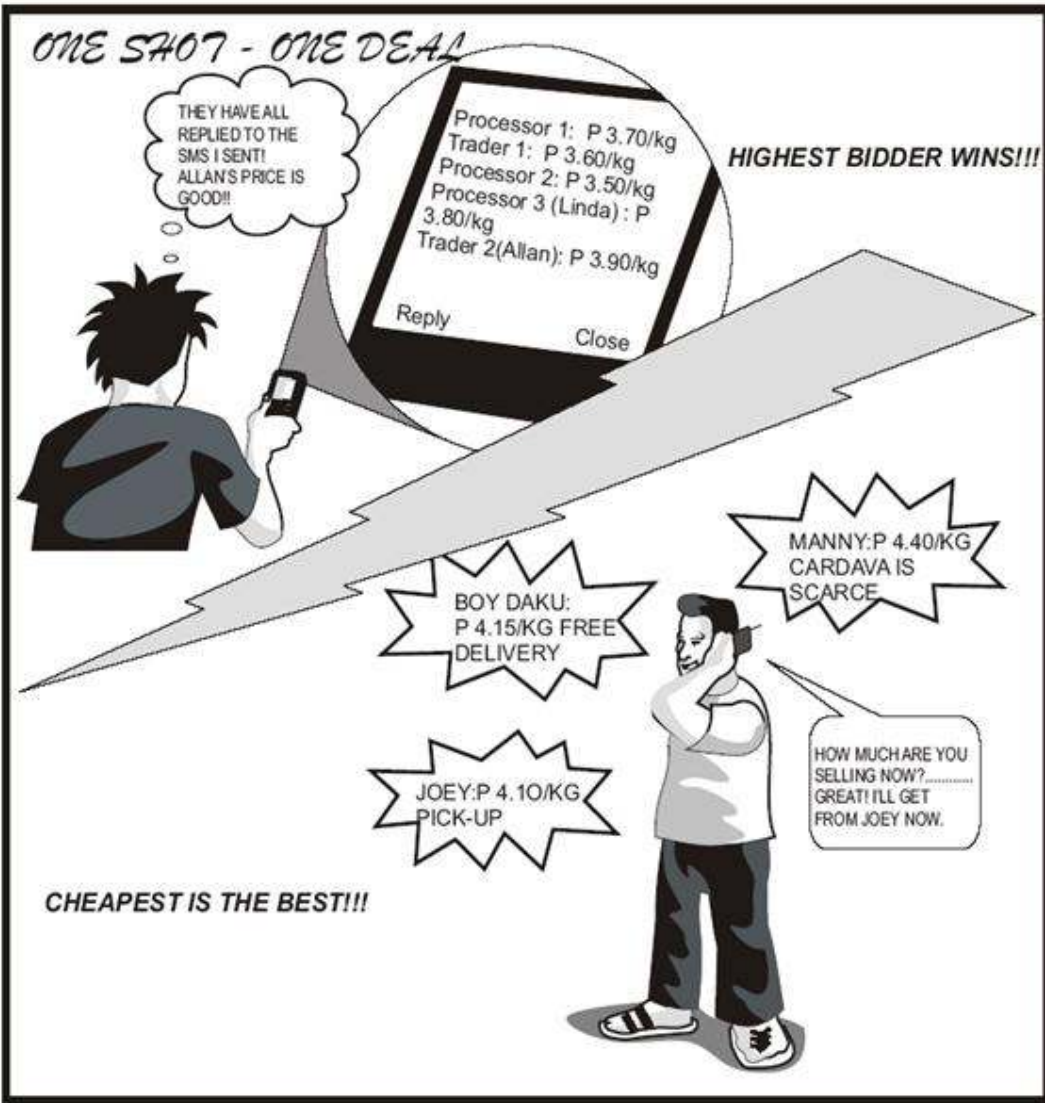
Factor	Constraints	Opportunities	Relationship
	<p>competitors in the export market</p>	<p>Some industry-wide product development efforts have been initiated and which can be further strengthened and aligned to market requirements</p> <p>Higher customization of product/s to specific end market niches.</p> <p>Opportunities to diversify into organic/all natural banana chips. Many of the cardavas are naturally grown and yields and quality can be optimized enhanced..</p>	
	<p>Existing product formats not appealing to local markets/Weak demand for banana chips in local market</p> <p>No alternative viable market other than exports and, as such, development in one major market can significantly affect the industry (e.g., when China stopped importing from the Philippines in 2004 due to policy differences, a lot of the companies stopped their operations).</p>	<p>The very large population in the Philippines and increasing consciousness for healthy snack food, provides opportunities to develop the local market for banana chips and its variants.</p> <p>Conduct of a marketing campaign in local markets based on health-related attributes of banana and its affordability and adjustments of product recipes/formats to Filipino taste/preferences.</p> <p>The Davao City Council has passed a resolution requiring banana chips to be sold in all school canteens to promote healthy eating and the consumption of banana chips.</p>	<p>Some degree of collaboration between public and private sector has been initiated towards the development of the local market for banana chips and other cardava-based products.</p>
	<p>Local chains are production driven leading to under/over production and price instability</p>	<p>Presence of progressive/lead firms at various points in the chain that can provide the focus and coordination, to ensure that all participants know and are committed to the customer's objectives.</p>	<p>Each player focused on production ... and tries to sell what they have production. Basically a reactive chain.</p>

# TWO WRONGS DON'T MAKE IT RIGHT!!!



B-ACE Stakeholders Workshop 2006

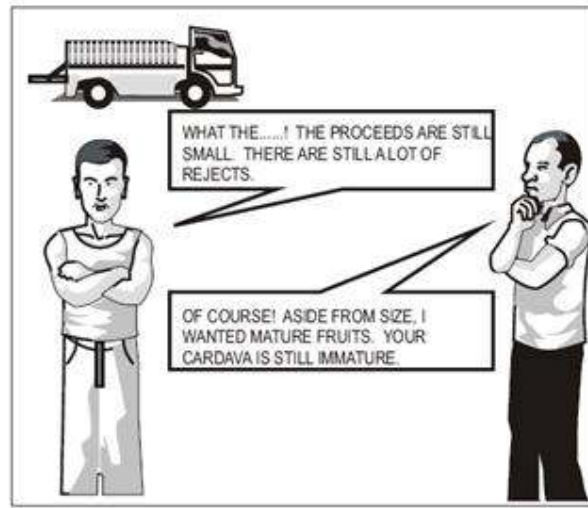
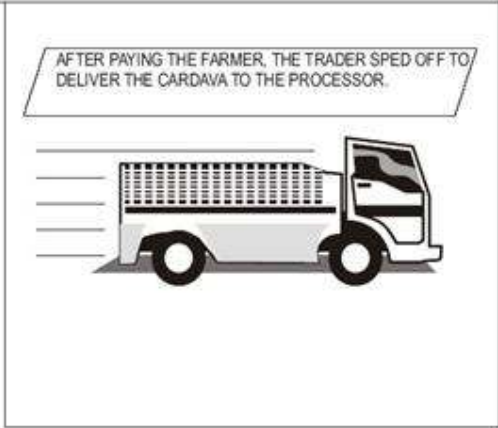
Factor	Constraints	Opportunities	Relationship
<b>Inter-firm Cooperation</b>	Poor communication/ information quality, and flow particularly with regards to pricing structure and demand and supply requirements.  A lack of market information which results in a lack of price transparency, suspicion, and adversarial relationships throughout the industry	With cardava banana as the OTOP focus in many areas in Mindanao, DTI could have the interest or could be approached by players to request for the inclusion of the banana chips industry in their existing pricing and monitoring program.  Radio stations and newspapers could have the interest to disseminate price and market info on banana.  Linkages between processors and growers usually via traders. Community-based traders play a mix role - information supplier, co-investor and 'extension officer'. Their effectiveness to disseminate info can further be enhanced.	Most players of the chain communicate only with those at the previous and following level. Information shared on a needs basis only.  Concept of supply chain management and collaboration not yet popular  Adversarial Relationships and dominance of short-term contracts and spot transactions based on primarily on price.  Short-term opportunism (processors – first fry communities – growers; processors - importers) stifles innovation and provides few incentives to invest in improvements.
	Lack of understanding of the operations of other players in the industry which lead to the perception of being taken advantaged of.	Players are now beginning to see the value of “talking with each other” as done during the stakeholders workshops. This can be further expanded and with initiatives taken over by the stakeholders themselves	Lack of common objectives and competitive strategy among chain players blocked their vision on doing business as a whole cluster. There is an absence of coordinated planning along the chain.
	Poor trust relations. Mistrusts among and between players in the chain - from importers to growers – on a wide range of issues from prices, quality, weighing scales, etc.	Some activities like the “Cardava Banana Festival” initiated by public and private sectors have been planned which can bring the players together (formally and informally).	
	Quality perceptions are different among players in the market	Participants in the stakeholders workshops expressed interest in coming up with standards and an accreditation system	
	Spot market transactions governed by best price offers create disincentives for win-win collaborations. Most are wary of going into contracts for fear that they may miss out opportunities to get higher prices (if and when it comes).	Pilots/models to show that it will work to mutual advantage of all parties concerned.	



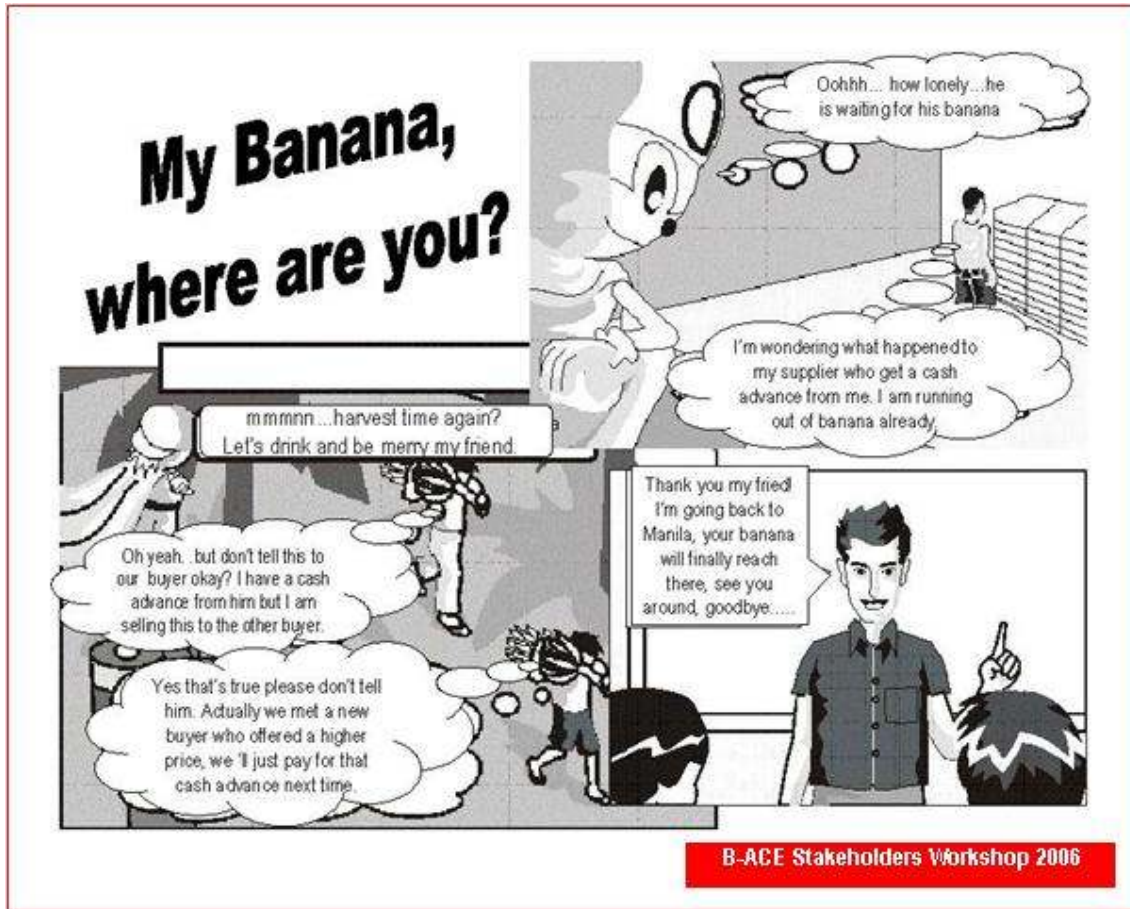
**AFTER 3 MONTHS!!!**



**B-ACE Stakeholders Workshop 2006**



B-ACE Stakeholders Workshop 2006

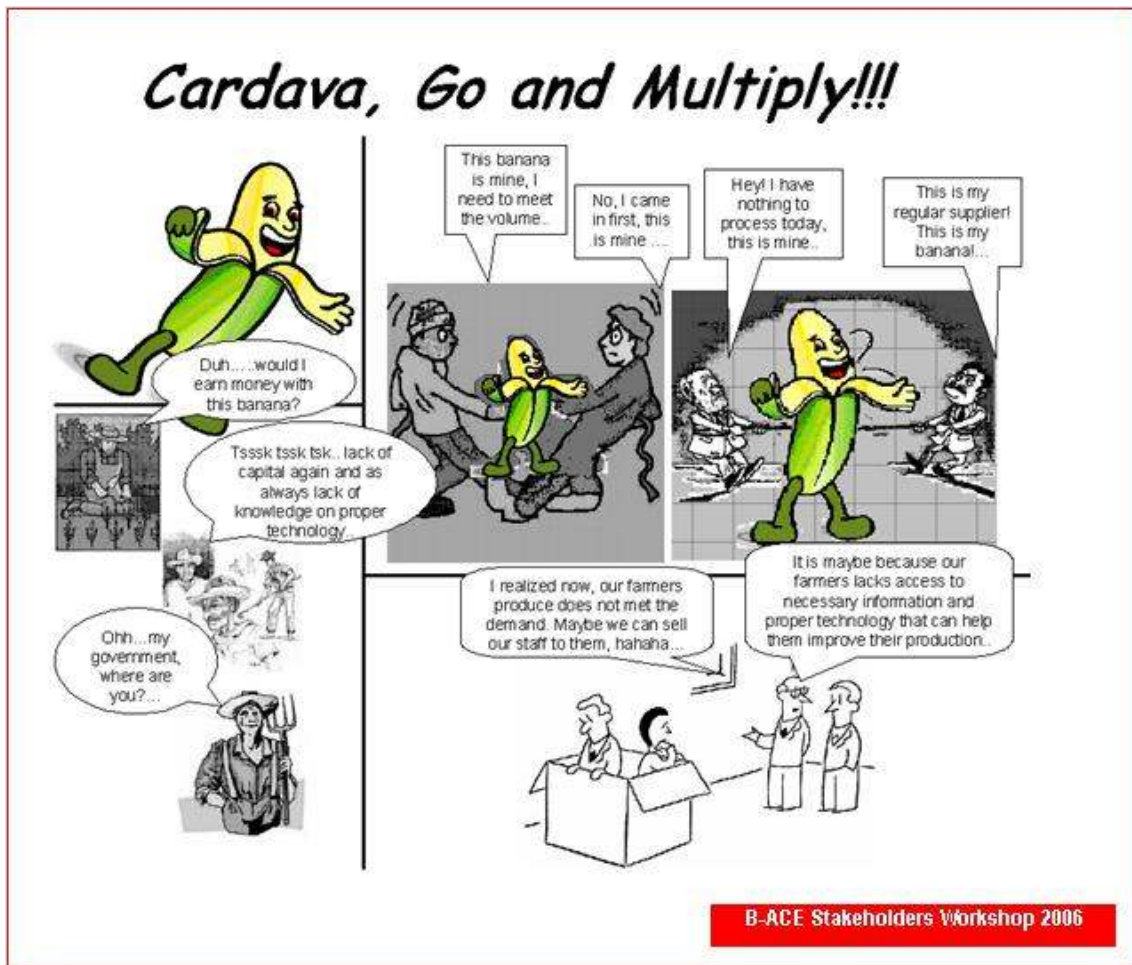


Factor	Constraints	Opportunities	Relationship
<b>Firm Level Upgrading</b>	<p><b>Growers:</b></p> <p>Lack of skills and know-how:</p> <ul style="list-style-type: none"> <li>- To implement GAP/simple tracking and traceability system</li> <li>- To minimize incidences of common/existing diseases-viruses and environmental stress</li> <li>- On improved production/ pre- and post-harvest technologies to increase efficiency and productivity/reduce post-harvest losses which currently estimated to be in the range of 30% to 40%</li> <li>- On organic/natural farming</li> <li>- Necessary to take on additional functions in the chain (e.g.,</li> </ul>	<p>Progressive farmers willing to share best practices with peers</p> <p>Planned Cardava banana festivals and OTOP program which can be a venue for sharing and learning</p> <p>Availability of senior and retired experts from banana multinational corporation who may want to share and transfer their knowledge and know-how to smallholders</p> <p>Interest among cooperatives and traders to increase volume/ yields to get premium prices (traders pay higher prices if</p>	<p>Majority do not see the benefits of upgrading as transactions are generally short-term and dependent on price offers.</p> <p>Lead firms generally hesitant to invest in upgrading of their suppliers for fear that it would be competitors who would benefit in the long run due to perception that communities and growers would always go for price.</p> <p>Willingness to invest on upgrading would depend on perceived income from "improved products", stability of sales, demonstrated</p>

Factor	Constraints	Opportunities	Relationship
	<p>consolidated marketing, first frying, etc.)</p> <p>Low levels of entrepreneurial orientation/ financial/farm management/ marketing skills including basic literacy</p>	<p>farmers/groups deliver significant volume)</p> <p>Information on cardava demand requirements will help reduce risks and uncertainties faced by growers parallel to guiding them re: investment decisions</p> <p>Growing preference for products produced through eco-friendly processes can provide incentives for pro-poor conservation and the adoption of all natural and organic production</p> <p>Pressures from buyers to upgrade production facilities and comply with quality and food safety and international standards can be a catalyst for upgrading and for lead firms to invest in the upgrading of their raw material suppliers.</p>	<p>loyalty from all parties, and perceived equitable distribution of benefits</p> <p>Lack of trust such that people are generally afraid to share their know-how (secrecy more pronounced among processors).</p>
	<p><b>First Fry Processors/Micro Processors</b></p> <p>Lack of skills and know-how:</p> <ul style="list-style-type: none"> <li>- On Good Manufacturing Practices (GMP) cum production process upgrading (commercial scale processing standards and operations)</li> <li>- To set-up and implement simple tracking and traceability system</li> <li>- On production management especially on operationalization of simple quality management and control system</li> </ul> <p>Micro processors: lack of skills and resources to meet</p>	<p>Growing number of exporters outsource first frying and would/could pay premium prices for good quality</p> <p>GMP compliance is a basic requirement to get permits to operate which are necessary to penetrate institutional buyers and to work with big exporters</p> <p>Some LGU have started advocacy campaigns to make food safety training a pre-requisite for business permit renewal.</p> <p>Growing awareness and demand from consumers even in local markets for safe and quality food</p> <p>Better opportunities for</p>	<p>Some processors have supported establishment of CSFs but were discouraged due to polevaulting.</p> <p>Low levels of trust. Spot transactions dominant. Price and quality issues are among the main barriers to win-win collaboration.</p>

Factor	Constraints	Opportunities	Relationship
	<p>even local market requirements;</p> <p><b>SME Processors/ Exporters</b></p> <p>Lack of skills and know-how:</p> <ul style="list-style-type: none"> <li>- On GMP and HACCP documentation and implementation</li> <li>- On quality management and control</li> <li>- Production process upgrading/ environment – friendly production processes</li> <li>- To implement simple tracking and traceability systems</li> <li>- In locating and targeting markets</li> <li>- On how to promote systemic productivity and quality improvement</li> </ul> <p>Lack of awareness and access to information and knowledge regarding product specification and market preferences.</p>	<p>banana processing communities to start first as first fry to build capital and skills</p> <p>Competition from Thailand is becoming fiercer particularly in terms of price, quality, reliability and differentiation factors.</p> <p>Implementation and adoption of standards such as GAP, GMP, HACCP and other relevant quality standards can play a positive role in providing the catalyst and incentives for the modernization of the banana chips industry and the adoption of safer and more sustainable production and processing activities which can be differentiation factors that can institutionalize market competitiveness.</p>	
	<p><b>Traders</b></p> <p>Lack of information and understanding on demand requirements, production schedule, standards and other pertinent information that they can disseminate to their farmer-suppliers in order to help the latter plan their inputs and harvests vis-à-vis procurement and production plans of processors</p>	<p>Traders have proximity, knowledge, access to both processors/local market vendors and growers</p> <p>Their current role as info provider and “extension officer” can further be enhanced</p>	
<b>Supporting Markets</b>	<p>Lack of stand alone and VC based providers to help SMEs and rural communities to comply with GMP, HACCP, GAP as well as improve business and production processes.</p>	<p>Traditional/indigenous learning structures in communities can be harnessed (e.g., elders in the communities, traders/consolidators providing informal advices, etc.)</p> <p>Schools/universities exposed to Young Consultants Program</p>	<p>Generally, enterprises and growers do not see each other as partners and source/s of learning but as persons who need to be ‘watched’.</p> <p>Lack of ‘tangibility’ of benefits associated with acquiring services from providers and</p>

Factor	Constraints	Opportunities	Relationship
		<p>under past IGP are now open to participate and invest in on-the-job training in SME and community setting.</p> <p>Lead firms are increasingly hiring food technologists, which puts them in a better position to provide guidance to their network of suppliers.</p>	getting firms to lower their guard against transfers to other enterprises.



Factor	Constraints	Opportunities	Relationship
<b>Enabling Environment</b>	Lack of effective and coordinated support to develop cardava industry particularly supply base and farm-to-market roads and potable water	<p>Potential strong support from government via their One Town One Product program (OTOP)</p> <p>LED agenda in almost every LGU and promoted as the common objective for all players involved, and, as such, offers a platform for the private sector to advocate for policy reforms to ease regulatory burdens and provide incentives for private sector investment.</p> <p>Well-representation of interests of stakeholders in all links of the chain can potentially be catalysts for positive behavioral changes.</p>	A growing and intentional public-private partnerships particularly with regards to the OTOP is ongoing in Mindanao

## THE POWERFUL FOOD SAFETY PRACTICES

**COMPLIANCE!!!**  
**COMPLIANCE!!!**

HACCP, Food Safety, ISO, GAP, Consumer Health

1st Fryers

What is GAP anyway?  
I think that's something expensive to do.

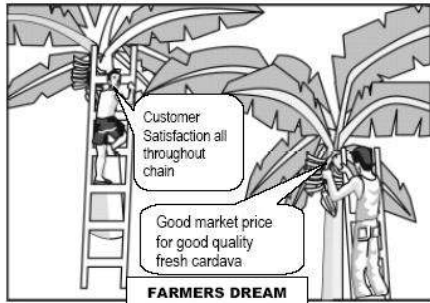
What? Even the truck has to conform to food safety?

Window screens? Are they really needed?  
What for? I have been killing all the germs.

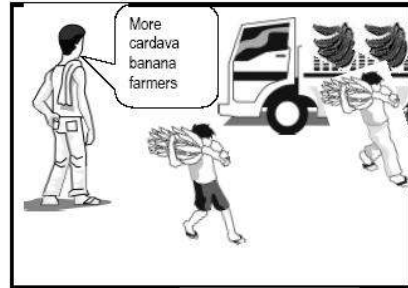
Sigh, they again detected hair and metal debris on our shipment.  
Yes, we really need to go into HACCP now.

**B-ACE Stakeholders Workshop 2006**

## SECTION 3: COMPETITIVENESS STRATEGY

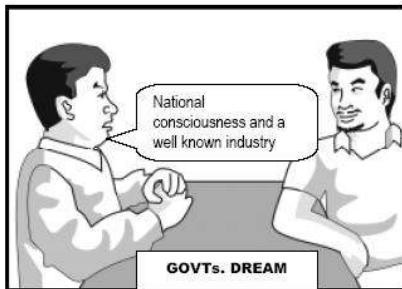


**FARMERS DREAM**

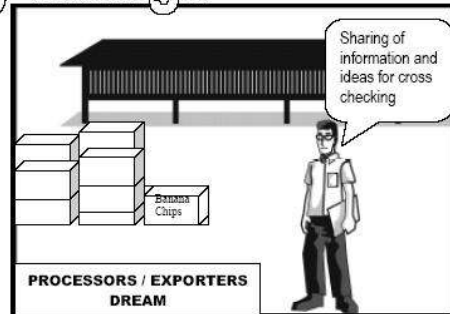


**TRADERS DREAM**

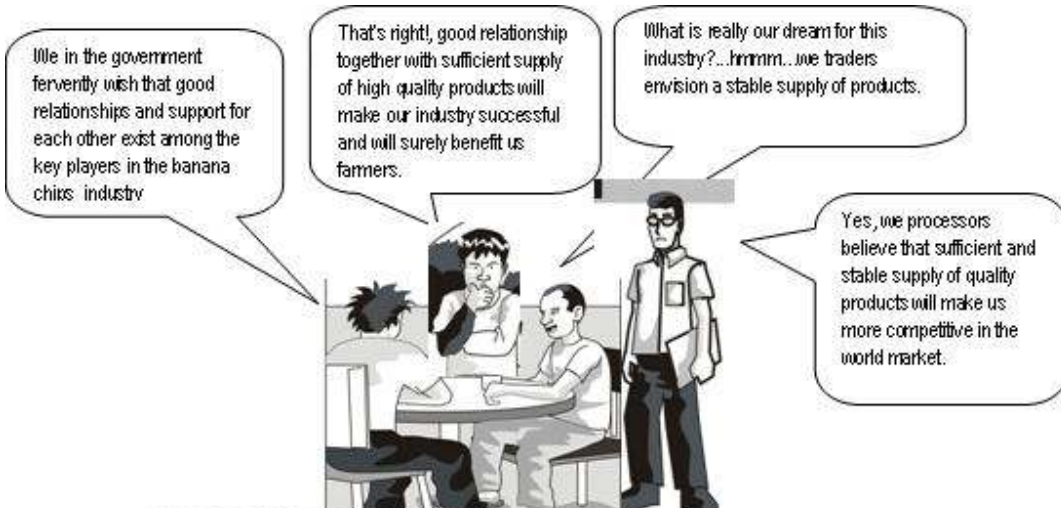
# Ang among damgo



**GOVts. DREAM**



**PROCESSORS / EXPORTERS DREAM**



**WHAT IS OUR SHARED VISION FOR A COMPETITIVE BANANA CHIPS/CARDAVA INDUSTRY?!**



## A. Vision for Creating Competitive Advantage

The industry's vision of creating long-term competitiveness and sustainability centers on the establishment of an efficient and integrated supply chain management geared towards the achievement of the following:

- a) Stable supply base of fresh cardava
- b) Recognized compliance to food safety and quality standards
- c) Competitive prices through improved efficiency and productivity
- d) Lower costs of transactions through economies of scale, volume, and just-in-time delivery
- e) Differentiated and innovative product variants with focus on all natural processed bananas both for local and export markets
- f) Consistent quality as set by end markets and reliable deliveries
- g) Eco-friendly and socially responsible business practices and processes

## B. Upgrading Strategy

Industry Change Required	Industry Stakeholders	Incentives for Change
GAP Compliance and Implementation	Growers/Farmers	<ul style="list-style-type: none"> <li>• Access to market/supply chain</li> <li>• Reduction of rejects and lower cost per unit</li> <li>• Reduction of post-harvest losses</li> <li>• Stabilization and/or increase of yields/revenue</li> <li>• Reduction of environmental and health threats in farm</li> <li>• Expansion of core competencies</li> <li>• Social recognition (via certification)</li> </ul>
	Traders	<ul style="list-style-type: none"> <li>• Reduction of liability/due diligence</li> <li>• Reduction of rejects</li> <li>• Stabilization and/or increase of supply volume</li> </ul>
	First Fryers Communities and Processors	<ul style="list-style-type: none"> <li>• Reliable and permanent inputs</li> <li>• Product differentiation</li> <li>• Reduction of liability/due diligence</li> </ul>
	Providers	<ul style="list-style-type: none"> <li>• New services that provide opportunities for income and client diversification/expansion</li> </ul>
	Local Government Units	<ul style="list-style-type: none"> <li>• Reduction on environmental and diseases threats in banana areas</li> </ul>
<b>Production and marketing of cardava for chips aligned/adapted to exporters production schedules</b>	Growers	<ul style="list-style-type: none"> <li>• Just-in-time production (e.g., adjustments in inputs and suckers based on projected demand)</li> <li>• Optimal utilization of scarce resources/investment planning</li> </ul>
	Traders	<ul style="list-style-type: none"> <li>• Just-on-time delivery</li> <li>• Better ability to map and match supply and demand</li> </ul>
	First Fry Communities	<ul style="list-style-type: none"> <li>• Lower procurement costs</li> <li>• Stable prices for a longer period of time</li> <li>• Just-in-time and reliable supply</li> </ul>

Industry Change Required	Industry Stakeholders	Incentives for Change
	Exporters	<ul style="list-style-type: none"> <li>• Improved utilization of capacity</li> <li>• Stable prices for a longer period of time</li> <li>• Stable/reliable supply</li> <li>• Lower procurement costs</li> <li>• Improved capacity to deliver on time --- less incidences of reductions/late delivery penalties --- improvement of track record on reliability</li> <li>• Improved utilization of capacity</li> </ul>
<b>Improved flow and exchange of best practices and upgraded technology in cardava banana farming</b>	Growers	<ul style="list-style-type: none"> <li>• Increase quality and productivity levels --- increase in income</li> <li>• Production cost reduction --- improvement in profit margins</li> <li>• Less rejects and post-harvest losses</li> <li>• Local and international recognition</li> <li>• Opportunities to move forward in the VC</li> </ul>
	Government	<ul style="list-style-type: none"> <li>• Recognition</li> <li>• Increased income/revenues</li> <li>• Reduced costs for extension services</li> </ul>
	Providers	<ul style="list-style-type: none"> <li>• Less costs in accessing and updating information</li> <li>• Recognition</li> </ul>
<b>Price transparency and better understanding of price structure</b>	Growers	<ul style="list-style-type: none"> <li>• Improved bargaining power</li> <li>• Potential to make projections and income forecast year round --- better investment planning</li> <li>• Less dependence on buyers/traders</li> </ul>
	Traders	<ul style="list-style-type: none"> <li>• Better understanding of their real incomes/margins</li> <li>• Improvement of their images --- better relations with growers and processors</li> </ul>
	First fry Communities	<ul style="list-style-type: none"> <li>• Reduced incidences of polevaulting among growers</li> <li>• Improved production planning and price forecast</li> <li>• Market information on prices</li> </ul>
	Exporters	<ul style="list-style-type: none"> <li>• Reduced incidences of polevaulting</li> <li>• Improved chances to enter into longer term supply contract with suppliers</li> <li>• Improved production planning and price forecast</li> </ul>
	Government agencies	<ul style="list-style-type: none"> <li>• Less complaints on price issues and “unfair practices” --- can devote time to other developmental issues</li> <li>• Recognition and trust building</li> </ul>

Industry Change Required	Industry Stakeholders	Incentives for Change
	Media/SMS companies	<ul style="list-style-type: none"> <li>• Outreach expansion</li> <li>• Improved image</li> </ul>
<b>Coordinated planning and efficiency/quality improvement throughout the chain</b>	Growers, Traders, First Fry, Processors - Exporters	<ul style="list-style-type: none"> <li>• Cost reduction and margins improvement</li> <li>• Sales and incomes improvement</li> </ul>
	BDS Providers	<ul style="list-style-type: none"> <li>• Increase portfolio of services and products</li> <li>• Increase sales and market opportunities</li> </ul>
<b>Affordable compliance to food safety standards and pool of workers trained in food safety</b>	Growers, traders, first fry communities, processors/ exporters	<ul style="list-style-type: none"> <li>• Compliance with client requirements --- increase in market opportunities</li> <li>• Increase in income/sales</li> <li>• Reduction of liability/due diligence</li> <li>• Image and recognition</li> </ul>
	Academe	<ul style="list-style-type: none"> <li>• Practical learning process for students/teachers</li> <li>• Image and recognition</li> </ul>
	Providers	<ul style="list-style-type: none"> <li>• Service expansion --- new source of income</li> <li>• Image and recognition</li> </ul>
<b>Through-chain quality improvement and compliance</b>	Growers/Traders	<ul style="list-style-type: none"> <li>• More market opportunities</li> <li>• Better Income generation as results of quality and standards implementation</li> <li>• Membership/representation of his/her community/barangay in the Quality Committees</li> <li>• Recognition</li> </ul>
	First Fryers Communities and Processors	<ul style="list-style-type: none"> <li>• To have access to the policy level</li> <li>• To have access to the gov. agencies and other players as member of the Quality Committees or association</li> <li>• Market opportunities as a result of standards compliance</li> <li>• Better incomes as results of increasing quality and productivity levels</li> <li>• Recognition by the market and government agencies for standard compliance</li> </ul>
	Exporters	<ul style="list-style-type: none"> <li>• Recognition by the market and government agencies for standard compliance</li> <li>• Better profit margins and lower risks of rejects</li> </ul>
	Government agencies	<ul style="list-style-type: none"> <li>• To facilitate the enabling environment for business and</li> <li>• Optimization of resources economic growth</li> <li>• Knowledge and skills enhancement</li> </ul>
	Academe	<ul style="list-style-type: none"> <li>• Establishment of close</li> </ul>

Industry Change Required	Industry Stakeholders	Incentives for Change
		collaboration with the private sector <ul style="list-style-type: none"> <li>• Knowledge and skills enhancement and exchange</li> </ul>
<b>Product differentiation</b>	Growers	<ul style="list-style-type: none"> <li>• Entry to a bigger and more lucrative markets</li> <li>• Income and job generation improvement</li> <li>• Knowledge and skills enhancement and sharing</li> <li>• OTOP and other programs support</li> </ul>
	Traders	<ul style="list-style-type: none"> <li>• Entry to a bigger and more lucrative markets</li> <li>• Income and job generation improvement</li> <li>• More demand for fresh Cardava for new products</li> </ul>
	First Fryers Communities and Processors	<ul style="list-style-type: none"> <li>• Market leadership for specific products/product attributes</li> <li>• Entry to a bigger and more lucrative markets</li> <li>• Less risk in their investments</li> <li>• Income and job generation improvement</li> <li>• Knowledge and skills enhancement</li> </ul>
	Exporters	<ul style="list-style-type: none"> <li>• Diversification of their portfolio of products and market leadership in specific niches</li> <li>• Less risk in their investments</li> <li>• Income and job generation improvement</li> <li>• Promotion and marketing support from other players and Gov. agencies</li> <li>• Optimization of resources</li> </ul>
	Government agencies	<ul style="list-style-type: none"> <li>• Efficiency and effectiveness improvement on their programs (eg OTOP)</li> <li>• Optimization of resources</li> </ul>
<b>Market Development</b>	Growers	<ul style="list-style-type: none"> <li>• Market penetration</li> <li>• Knowledge on how to assess and benefit from those markets</li> <li>• Income and job generation improvement</li> <li>• Promotion and recognition via marketing campaigns</li> <li>• Self-confidence and security among family members</li> </ul>
	Traders	<ul style="list-style-type: none"> <li>• Promotion and recognition by marketing campaigns</li> <li>• More happy and reliable suppliers</li> <li>• Better image and respect among the players in the VC</li> </ul>

Industry Change Required	Industry Stakeholders	Incentives for Change
	First Fryers Communities and Processors	<ul style="list-style-type: none"> <li>• Increase in incomes</li> <li>• Increase in number of buyers --- not dependent on just 1 or 2 buyers</li> <li>• Effective resource utilization</li> </ul>
	Exporters	<ul style="list-style-type: none"> <li>• Increase in number of buyers --- not dependent on just 1 or 2 buyers</li> <li>• Whole year round production – less seasonality</li> </ul>
	Providers	<ul style="list-style-type: none"> <li>• Increase in income</li> <li>• New services; new clients</li> </ul>
	Government agencies	<ul style="list-style-type: none"> <li>• OTOP success/accomplishment of targets</li> <li>• Optimization of resources</li> </ul>
<b>Market-oriented and commercial-based support from LGUs and other government agencies without causing too much distortion</b>	Government agencies	<ul style="list-style-type: none"> <li>• Knowledge and skills enhancement</li> <li>• OTOP success/accomplishment of targets</li> <li>• Improved image</li> <li>• Optimization of resources</li> </ul>

### C. Sustaining Competitiveness



- Community BDS systems to build up basic competencies of communities to enter into partnerships under better and equitable conditions
- Availability of services that would assist players in meeting requirements of bigger markets (i.e., GAP, GMP, HACCP, product development) and in accessing buyers
- Long-term partnerships/relationships to mutually grow business (growers – first fry communities – processors – local and export buyers)
- Workflow and information along the different links allow flexibility, spur innovation, and faster response to market requirements and trends. Forward and backward coordination between processors and buyers to minimize the risk over the trends and changes in the market
- A quality system infrastructure recognized and upheld by all players aimed at defining, disseminating (info codification), implementing, and monitoring the continuous compliance of quality characteristics and standards of products and processes along the entire supply chain.
- Reduced regulatory burden and harmonization of Public Sector HACCP/GMP audit other regulatory requirements; reduction of processing time
- Government takes lead and more active role in the gathering and dissemination of trade info and policies
- Integrated supply chain management

## SECTION 4: ACTION PLAN

### A. Roles

Players	Roles
Growers cooperatives	<ul style="list-style-type: none"> <li>• Base of training and dissemination of GAP and other skills</li> <li>• Base of buying stations system</li> <li>• Base of quality and food safety control at community level</li> </ul>
Traders	<ul style="list-style-type: none"> <li>• Base of collective marketing and consolidation</li> <li>• Information channel between first fry communities, processors and growers</li> <li>• Source of financing and equipment required</li> </ul>
Input suppliers	<ul style="list-style-type: none"> <li>• Source of training and information</li> </ul>
First fry communities/ Banana processing groups (micro)	<ul style="list-style-type: none"> <li>• Co-owners and/or co-operators of the common training and production facilities</li> <li>• Base of training and info dissemination</li> </ul>
Processors/Exporters	<ul style="list-style-type: none"> <li>• Marketing arm for communities and growers production</li> <li>• Technical training and market requirement compliance</li> <li>• Lead in the adaptation and implementation of standards</li> <li>• Catalyst in the upgrading of communities</li> <li>• Base for product innovation and development</li> <li>• Source of financing and equipment required</li> </ul>
Importers/domestic buyers	<ul style="list-style-type: none"> <li>• Market information and trends</li> <li>• Promotion and marketing of products</li> </ul>
Government	<ul style="list-style-type: none"> <li>• Facilitate conducive business environment</li> <li>• Product promotion</li> <li>• Market information, researches and trends</li> <li>• Information in development of standards and control via-avis regulations</li> <li>• Community investment and promotion</li> <li>• Infrastructure and public services provision</li> </ul>
Providers including retired executives from multinationals	<ul style="list-style-type: none"> <li>• Develop, adaptation and delivery of services required/needed by the players</li> <li>• Market assessment and info dissemination among players</li> </ul>
Academe	<ul style="list-style-type: none"> <li>• Support in the implementation of the young consultant program</li> </ul>
Project	<ul style="list-style-type: none"> <li>• Capacity and capability building of both value chain and stand alone providers including identified catalysts of growth and change</li> <li>• Design and technical assistance in the operationalization of systems</li> <li>• Linkages facilitation</li> <li>• Initial market assessment and market info provider with gradual transfer to players</li> <li>• Initial development of products and know-how transfer</li> <li>• Organizational and institutional development of banana processing groups and first fry communities including growers and transfer to local government</li> <li>• Advocacy and transfer of know-how to associations</li> <li>• Networking and transfer of know-how to community groups</li> <li>• Promotion of services and transfer of know-how to providers</li> <li>• Initial market and marketing development assistance and contacts with gradual transfer to players</li> <li>• Facilitate of the set-up of Quality System structure</li> </ul>

## B. Intervention and Exit Strategy

Industry Change Required	Intervention Approach	Timeframe	Exit Strategy
<p><b>GAP Compliance and Implementation</b></p>	<p>Facilitate collaboration between lead/progressive farmers-consolidators and retired managers of banana multinational corporations in the further development of low cost GAP adapted to the growers' local conditions and resources.</p> <p>Project support in the development of manual and training of first batch of trainors (lead farmers)</p> <p>Technical assistance in the implementation of Model GAP farms in selected key strategic areas which will be used to demonstrate technical and financial viability of GAP. Likewise, this will be used as a starting point in making all GAP farm compliant through the Filipino's traditional <i>bayanihan</i> system (the creation of alliances with neighbors/ passing on assistance received to another household)</p>	<p>30 months</p>	<p>Assistance will be structured as fixed term consultancy where project provide subsidized assistance and those trained in return will provide services to growers either as embedded services or fee-based services.</p> <p>Those trained should also apply and implement in their farms to provide model GAP farms with complete cost-benefit documentation to be used for promotional campaign.</p> <p>Project will support first batch of model GAP farms. Those who received project assistance should in turn assist another farm --- and the cycle goes on.</p>
<p><b>Production and marketing of cardava for chips aligned/adapted to exporters production schedules</b></p>	<p>Facilitate development of information system on market demand forecast and corresponding banana chips production schedules/ cardava supply requirements which will help farmers determine appropriate farm maintenance system and harvest schedules</p> <p>Facilitate increase of supplier units through horizontal collaboration</p> <p>Develop skills of major traders to map cardava existing production areas and seasonal schedules as basis in forging 60-days advance</p>	<p>18 months</p> <p>18 months</p>	<p>Systems development and transfer of know-how and skills to operate system as technical assistance to Banana Chips Producers Association and relevant government agencies.(DA/DTI)</p> <p>Info dissemination to be tied up with radio stations with existing program for farmers, local newspapers, and MMS</p> <p>Training will be provided as fixed term technical assistance.</p> <p>Demonstration of benefits will catalyze Interest to adopt purchase contract</p>

Industry Change Required	Intervention Approach	Timeframe	Exit Strategy
	lot purchase agreements between buyers and farmers with price index calculations transparent to all parties concerned.		agreement
<b>Improved flow and exchange of best practices and upgraded technology in cardava banana farming</b>	Support the development of best practices documentation and knowledge transfer/ learning and innovation events via model farm and best practices competitions	12 months	<p>Fixed term technical assistance in the development and piloting of three-tier system (municipal, provincial, and regional) to facilitate identification, documentation, and dissemination of best practices. System will be managed and operated by LGU in partnership with DA and private sector entities like media, universities/schools, and farm input suppliers.</p> <p>Competitions will be incorporated in Banana Cardava festivals and will be financed through sponsorships.</p>
	Strengthen capacity of existing radio programs for farmers to disseminate best practices on cardava farming	12 months	Information network structure in place and operational with the private sector
	Facilitate the development of community-based BDS system. Focus would be on production-related services integrated with entrepreneurial aspects and basic literacy skills.	30 months	BDS system anchored on indigenous learning and/or trading structures.
<b>Price transparency and better understanding of price structure</b>	<p>Support the development of price index system for fresh cardava, first fry, and banana chips.</p> <p>Facilitate the dissemination via MMS and radio programs.</p>	18 months	<p>Integration of price index system in DTI and DA price monitoring system. At the community level, skills and know-how to operate the system transferred to marketing cooperatives.</p> <p>Financial viability in place and operational with the private sector.</p>
<b>Coordinated planning and</b>	Based on benchmark, core group of banana supply chain leaders	30 months	To use the pilot results to promote and

Industry Change Required	Intervention Approach	Timeframe	Exit Strategy
<b>efficiency/quality improvement throughout the chain</b>	and selected providers adapt, pilot, and demonstrate benefits of Continuous Productivity and Quality Improvement (CPQI) system		mainstream the use of CPQI among chain leaders with costs shared by all players.
<b>Affordable compliance to food safety standards and pool of workers trained in food safety</b>	<p>Facilitate the development of food safety (GMP, HACCP) compliance adapted to the conditions and resources of first fry communities and processors.</p> <p>Facilitate the development of food safety providers (community and school-based)</p> <p>Support to development and pilot implementation of community-based apprenticeship program to ensure pool of trained workers for first-fry processors and communities.</p>	30 months	<p>Low cost GMP/HACCP compliance practices transferred to BDS market</p> <p>Providers deliver services either embedded or under other commercial based transaction</p> <p>Ordinance mandating food safety training for workers in food establishments as pre-requisite to business permit renewal passed.</p>
<b>Through-chain quality improvement and compliance</b>	<p>Facilitate the set-up/ harmonization of process and product standards by and with representatives of private and public players in the chain.</p> <p>Networking and facilitation of public-private partnership, between representatives of the supply chain and government to set-up the quality system infrastructure (Quality Policy Committee/audit and accreditation procedures, etc)</p>	30 months	Assistance will be structured as a fixed-term consultancy where project staff provide project-subsidized assistance to develop specific deliverables in return for the government and supply chain players to implement quality system infrastructure at their own cost
<b>Product differentiation</b>	<p>Promote product development through the set-up of a seed/matching capital scheme to a group of lead firms and/or selected community-based processing units.</p> <p>Seed capital will be in the form of market information and market tested new banana recipes/product variants (all natural banana recipes, product formats for local and export markets) including transfer of product dev methodology. This will also be a part of the on-the-job training of school-based (food tech) and community-based apprentices.</p>	24 months	<p>Product dev know-how transferred to lead firms and private providers.</p> <p>Results of product development pilots to be used in the promotion of the benefits of product dev.</p>

Industry Change Required	Intervention Approach	Timeframe	Exit Strategy
	Support the conduct of cardava banana recipe competition including commercialization of winning recipe.	12 months	Competitions will be integrated in the Banana Cardava Festivals
	Facilitate the introduction and implementation of organic/all natural banana farming system through community-based BDS system set-up and technical support to development of demonstration farms	34 months	Fixed term technical assistance to communities. Model farms and trainors disseminate technology to other farmers via embedded or commercial based transactions.
<b>Market Development</b>	Development of product formats and a common brand/packaging for the local market which micro processors and community-based processing units can avail of.	30 months	Use of recipes, brand, and packaging materials under commercial based transactions
	Support the development and pilot implementation of marketing campaign		
	Provide seed capital in the development of local and export markets in the form of in-depth market information on local and export markets.	24 months	Market Information system, contacts, and know-how transferred to Quality Committee (public-private composition)
<b>Market-oriented and commercial-based support from LGUs and other government agencies without causing too much distortion</b>	Technical assistance to LGUs in the formulation of One Town One Product development plan (pilots)  On-the-job training for LGU/government staff in supporting the establishment/strengthening of community-based enterprises	30 months	Fixed term technical assistance for selected OTOP areas for LGU/DTI/DA to gain experience and skills; replication to other OTOPs on their own.

### C. Detailed Work Plan Table (Year 1)

Activity	1 <sup>st</sup> Quarter			2 <sup>nd</sup> Quarter			3 <sup>rd</sup> Quarter			4 <sup>th</sup> Quarter		
	1	2	3	4	5	6	7	8	9	10	11	12
<b>GAP COMPLIANCE:</b>												
Documentation of GAP compliant indigenous practices and their integration in GAP manual												
GAP awareness campaign tied up with Banana festivals and other public and private events												
Selection of potential farms for Model GAP farm demonstration												
GAP low cost model farm												

Activity	1 <sup>st</sup> Quarter			2 <sup>nd</sup> Quarter			3 <sup>rd</sup> Quarter			4 <sup>th</sup> Quarter		
	1	2	3	4	5	6	7	8	9	10	11	12
implementation												
GAP indigenous model farm award contest design and implementation												
Second batch of trainers training program design and implementation												
Development of community-based BDS system on GAP and its operationalization												
<b>ALIGNMENT OF CARDAVA SUPPLY AND DEMAND</b>												
Establishment of production and market information committee comprised of representatives of each function in the chain												
Players awareness and sensitization workshops												
Data collection system development and operationalization including capability building												
Info dissemination system development and operationalization												
“Topic of the month” players meeting per selected pilot areas												
<b>BEST PRACTICES AND TECHNOLOGY</b>												
Development and piloting of best practices competitions (municipal, provincial, and inter-regional levels) including institutional framework and capability building of organizing committees in key OTOP areas <ul style="list-style-type: none"> <li>• Best Farming Practices</li> <li>• “Social Responsible Player” award to promote environmental, social and economic best practices in the VC</li> <li>• Best OTOP</li> <li>• Etc.</li> </ul>												
Documentation and info dissemination system development <ul style="list-style-type: none"> <li>• Radio programs</li> <li>• Kapehan sa Barangay (forums with competition winners during community/cooperative assemblies)</li> <li>• LGU info dissemination and</li> </ul>												

Activity	1 <sup>st</sup> Quarter			2 <sup>nd</sup> Quarter			3 <sup>rd</sup> Quarter			4 <sup>th</sup> Quarter		
	1	2	3	4	5	6	7	8	9	10	11	12
extension programs												
Development of community-based BDS systems to facilitate transfer of best practices including operationalization												
Facilitation of set-up of Banana Quiz Shows in schools in rural communities												
<b>PRICE STRUCTURE AND SYSTEM</b>												
Players awareness and sensitization workshops												
Value Chain process profiling and process costing system development												
Price index community-based development												
Field Banana Cardava pilot testing for costing and pricing standardization among players												
Price dissemination system development via MMS and radio programs including piloting												
Testing pilot areas validation and systematization and dissemination through Gov. programs												
“front price” visibility pricing per player implementation												
Monitoring and weekly reference prices												
<b>PRODUCTIVITY AND QUALITY IMPROVEMENT</b>												
Awareness and CPQI promo workshops												
Identification and selection of a core lead players and BDS providers												
Place of work pilot CPQI implementation												
Focus group discussion on benefits of improved quality and productivity operationalization												
<b>FOOD SAFETY AND STANDARDS</b>												
Food Safety (GMP-HACCP) standards adaptation to local conditions and resources of cardava processors												
Public-private Mobile Food Safety and standards promotion campaigns												

Activity	1 <sup>st</sup> Quarter			2 <sup>nd</sup> Quarter			3 <sup>rd</sup> Quarter			4 <sup>th</sup> Quarter		
	1	2	3	4	5	6	7	8	9	10	11	12
BDS Providers for Food Safety training program				■	■			■	■		■	■
“I got my rights” Children awareness on health and nutrition rights with the Cardava Mascot Food Safety entertainment show				■	■			■	■		■	■
“Best food safety compliance” competition design and implementation including dissemination system for best practices									■	■	■	■
Set-up of the workers apprenticeship program with farmers and processors									■	■	■	■
<b>QUALITY SYSTEM AND ACCREDITATION</b>												
Identification and selection of lead players to comprise Quality Policy Committee				■	■							
Set-up of the network and first committee of Quality System and main agenda development						■	■					
Standardization and harmonization of process and product standards among VC players							■	■	■			
Launching of the “excellent seal award” for QS compliance										■	■	
<b>PRODUCT DEVELOPMENT</b>												
Product and recipe development awareness and promotion campaign design and piloting (contest, workshops, etc.)	■	■	■	■			■	■			■	■
“One Town one Recipe” award program to promote product development with contest guidelines based on market preferences including orientation workshops for contestants and organizers			■	■	■							
Promotion of winning/developed recipes/products/recipes including market testing (on-the-job training for winners and Young Consultants)					■	■	■	■	■	■	■	■
Mindanao/Philippines Cardava by products recipe book development and launching										■	■	■
<b>Product Differentiation – Organic/All Natural Products</b>												
Identification of current indigenous farming practices that conform with all natural/organic				■	■							

Activity	1 <sup>st</sup> Quarter			2 <sup>nd</sup> Quarter			3 <sup>rd</sup> Quarter			4 <sup>th</sup> Quarter		
	1	2	3	4	5	6	7	8	9	10	11	12
farming system												
Facilitate establishment of community-based BDS system for all natural farming and its operationalization												
All natural model farm demonstration set-up												
<b>SUPPORT MARKET (in addition to those already indicated in other headings)</b>												
Implementation of Young Consultants Program in collaboration with academe/ universities												
<b>MARKET DEVELOPMENT</b>												
Pilot market information research for local (Davao and Manila) and export (China) markets												
<p>“I love Cardava and Cardava Chips” domestic marketing campaign development and implementation</p> <ul style="list-style-type: none"> <li>• Cardava Sikat ka Rock jingle composition and launching”</li> <li>• Be Glamorita, Eat Cardava Chips campaign</li> </ul>												
“Cardava recipe festival” in malls and schools to promote flavors and healthiness of by products												
Branding and labeling corporate image design and promotional campaign												
<b>PUBLIC-PRIVATE PARTNERSHIP</b>												
Establishment of synergies/ linkages between B-ACE and OTOP through joint implementation of selected activities of B-ACE												
Knowledge and skills improvement system development for government agencies												
On-the job training for government extension/OD officers												