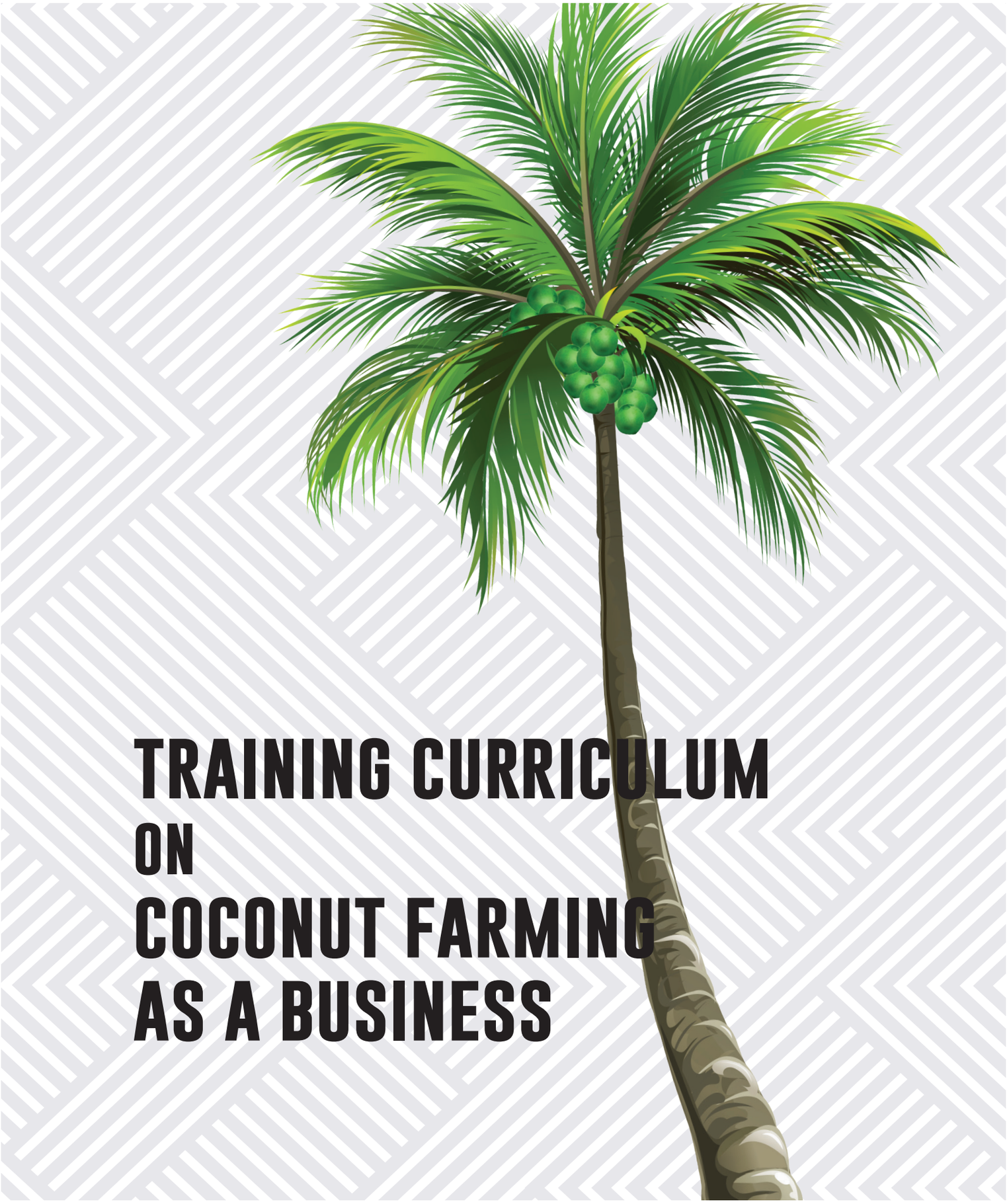


TRAINING CURRICULUM ON COCONUT FARMING AS A BUSINESS

DEPARTMENT OF AGRICULTURE 1898

german cooperation
DEUTSCHE ZUSAMMENARBEIT

giz Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

INTRODUCTION

BACKGROUND

This Training Curriculum on Coconut Farming as a Business was developed jointly by Philippine Coconut Authority, Agricultural Training Institute (ATI), Bureau of Agriculture and Fisheries Standards and Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) within the framework of the Sustainable Certified Coconut Oil Production (SCNO) project. It builds on the experiences and outcomes of a set of training materials such as the DA-ATI/DAR/FAO Farm Business School (FBS), implemented in the Philippines as well as GIZ's Farmer Business School approach, from which more than 400.000 farmers of eight different countries benefitted.

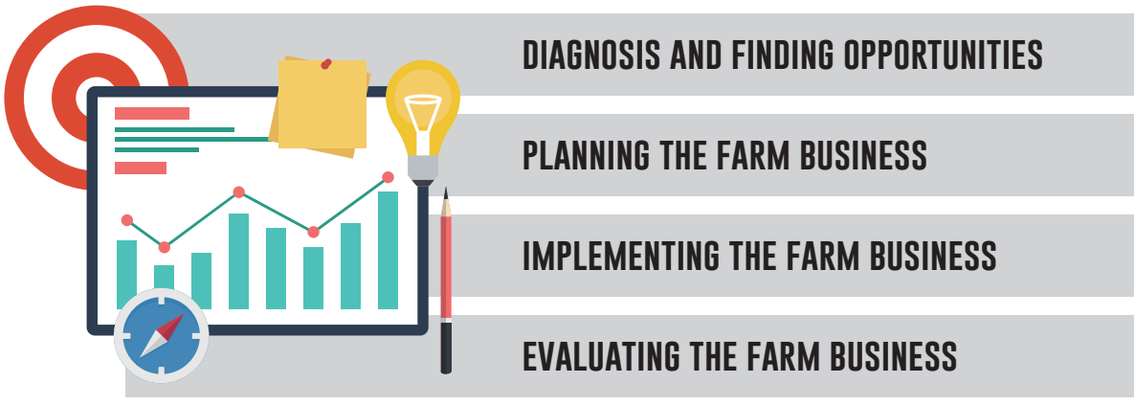
WHAT IS THE TRAINING CURRICULUM FOR?

The curriculum is intended to be used by Agricultural Extension Workers and Coconut Development Officers to train 3,000 coconut farmers. By showcasing key technologies and farm management practices, this training material aims at providing necessary, practical and technical skills and know-how for farmers on how to increase productivity and incomes of their farm. Through prominently looking at the farm business side of coconut production, this training wants to sensitize farmers on – often neglected – money matters and wants to contribute to elevate the (business) mindset of the farmers to a higher level, which is the basis for an informed and knowledge-based and optimized decision taking on the farm.

HOW WAS THIS TRAINING CURRICULUM DEVELOPED?

The development and assemblage of the modules and sessions that made up the Training Curriculum entailed a number of processes, namely, review of the DA-ATI/DAR/FAO FBS and the GIZ FBS materials and experiences, with the Filipino smallholder coconut farmers in mind; module writing workshop/writeshop; a series of technical reviews and enhancement meetings; and pilot testing in Training of Trainers or TOT. All these were carried out with the active participation of SCNO partner-agencies and an specifically for this purpose established working group.

Apart from the introductory sessions, the main contents of the Training Curriculum were clustered and sequenced following the components of the Farm Business Cycle, namely:



HOW TO USE THIS TRAINING CURRICULUM?

This Training Curriculum is accompanied with a Mini-Tool Kit which entails guidance and details on how to conduct session activities, adult-friendly learning exercises, business calculations, on-site demonstrations and reflections.

FOREWORD

I congratulate the staff and participants under this Training Curriculum on Coconut Farming as a Business: the Sustainable Certified Coconut Oil Production (SCNO) Project. I strongly believe that this would be a great help to capacitate the Coconut Development Officers and Agricultural Extension Workers in not only effectively disseminating information on the latest coconut-based technologies but also transforming the mindset of the coconut farmers from simply providing coconuts as raw material to managing sustainable farms as entrepreneurs. This would also be the start of appreciating the business side of coconut farming as trainings and extension services in the past were mostly focused on coconut-based technologies and production.

The development of this training curriculum and the other components of the SCNO Project is in line with the direction of the Philippine Coconut Authority in the development of a globally competitive coconut industry which contributes to food security and responds to the needs of its stakeholders, including the coconut farmers. Furthermore, having the participants certified through Rainforest Alliance Certification will broaden their market opportunities in the future.

May this Training Curriculum be also significant to other agricultural commodities and programs, so it will benefit not only amongst coconut producers but also all the Filipino farmers.

Mabuhay!

ROMULO J. DE LA ROSA
Administrator
Philippine Coconut Authority

FOREWORD

In a climate changed world, particularly the Philippines, which is often visited by tropical cyclones and incidences of dry spell, there is a need to create an environment where the farmers can withstand the pressing challenges of modern agricultural development. It is therefore imperative that the government and the private sector work together to ensure innovating measures for strengthening the capability and efficiency of the farming workforce.

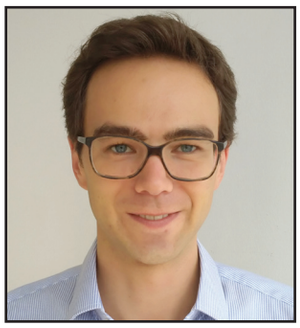
The Sustainable Certified Coconut Oil Production (SCNO) Project is one worthy undertaking towards empowering the coconut farmers of the country. The project invests heavily in people with the dedicated commitment of its partners, a Training Curriculum on Coconut Farming as a Business was conceptualized and developed. The collaboration effort brings the combined learning and experience of various stakeholders to a higher level of understanding that will address business enhancement and effectiveness in the coconut farming sector.

There may be a lot of challenges to overcome in strengthening the business potential of our coconut farmers. Thus, there should be a continuous effort to encourage greater productivity and a business environment in the coconut industry.

This training curriculum is therefore an important big step.

ROEL M. ROSALES
Deputy Administrator
Operations Branch
Philippine Coconut Authority

FOREWORD



Experiences from many agricultural development projects and programs across the globe indicate that adoption of technical innovations by farmers will be most successful if farmers can see the value of these innovations and enhanced farming practices. The farmer business school approach, incorporated into this manual, aims at achieving exactly this. Through being enabled to calculate the potential benefits from following Good Agricultural Practices, producers will start looking at the entrepreneurial potential of their farm activities. Farmers will thus be empowered to take better and informed decisions for higher productivity and incomes. Besides strengthening their agricultural and financial management skills, this training curriculum aims to help farmers to develop an entrepreneurial mindset which sees economic opportunities in coconut farming, while at the same time respecting the importance of the environmental and social dimensions of sustainability.
By supporting the development of this training curriculum GIZ wants to contribute to the sustainable development of the coconut sector in the Philippines, and to enhance rural livelihoods by supporting the country's efforts to alleviate poverty and progress on the path towards the Sustainable Development Goals.

MATTHIAS RADEK
Chief Advisor
Partnership Projects in Agriculture
Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

SUMMARY OF THE TRAINING CURRICULUM

The training aims at providing necessary, practical and technical skills and know-how for farmers on how to increase productivity and incomes of their farm. Through prominently looking at the farm business side of coconut production, this training will sensitize farmers on – often neglected – money matters and wants to contribute to elevate the (business) mindset of the farmers to a higher level, which is the basis for an informed and knowledge-based and optimized decision-making on the farm.

Module	Topic	Session	Total Duration
0	About the SCNO Project		1hr
1	Is coconut farming a business?		1 hr
2	Farm Business Cycle		1hr
3	Diagnosis and Finding Opportunities	1. Assessing your existing farm 2. Record keeping 3. Understanding Farm Profitability 4. Assessing Market Opportunities	6 hr
4	Planning your farm business	1. Optimizing Profitability of Your Farm 2. Formulating a Farm Business Plan	6 hr
5	Implementing your farm business	1. Organizing your Farm Business 2. Producing, Monitoring and Marketing	3 hr
6	Evaluating your farm business	1. Evaluating your Farm Business 2. Becoming an entrepreneur in practice	2.5 hr

ACKNOWLEDGEMENT

This Training Curriculum was developed in the framework of the Sustainable Certified Coconut Oil Production Project with technical and financial support from:

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MODULE

0

INTRODUCTION

SESSION 1: ABOUT THE SCNO PROJECT

OBJECTIVES

ACQUIRED KNOWLEDGE

Participants understand:

- the contribution of the Philippines to the world market of coconut oil
- the implications of the value chain for copra
- the main intention of the project

ACQUIRED ATTITUDES

Participants are interested to join the trainings on coconut farming as a business

METHODS

Plenary discussion

TRAINING SUPPLIES, TOOLS AND MATERIALS

- Manila paper, marking pens, whiteboard and pen(or blackboard and chalk),

Tarpaulins "Sustainable Certified Coconut Oil Production (SCNO) Introduction and Project Overview"

- Tarp: Overview on the Training Coconut Farming as a Business
- Adhesive tape, push pins, calculator, templates and prepared diagrams
- Laptop, LCD and screen (optional)

KEY TOPICS

A. Understanding the Copra and Coconut Oil Market
B. Challenges in the Coconut Industry
C. Overview of the SCNO Project

DURATION

1 hour

KEY TOPIC	INTRODUCTION		
DURATION	10 minutes	TRAINING RESOURCES	

ACTIVITIES

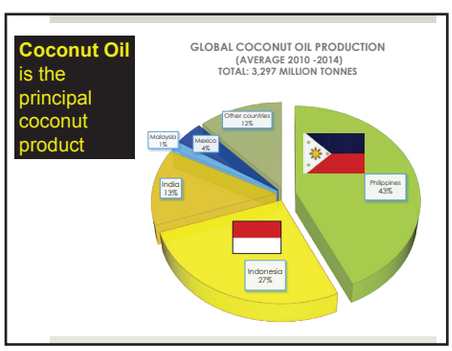
- Greet and welcome the participants. Introduce yourself and your team mate
- **GET THE ATTENTION**
  This session will showcase the highlights of the SCNO project particularly for you to improve your productivity and incomes and to provide you opportunity for achieving these through intercropping and certification.
- **EXPLAIN OUTCOMES**
  You will be able to understand why PCA, ATI and other agencies came up with this project.
- **EXPLAIN STRUCTURE**
  We will take first a look at the, the challenges the coconut sector is facing and what the project intends to address and how it is designed.

KEY TOPIC	UNDERSTANDING THE COPRA AND COCONUT OIL MARKET		
DURATION	20 minutes	TRAINING RESOURCES	Tarpaulins and illustrations to "Sustainable Certified Coconut Oil Production (SCNO) – Introduction and Project Overview"

As we can see by the collection of logos, the Sustainable Certified Coconut Oil Production project (in short SCNO project) is a joint undertaking of several organisations and companies.

The project is led by the Philippine Coconut Authority with support from the German Development Cooperation (GIZ) and private sector partners, namely Cargill, BASF and Procter & Gamble.

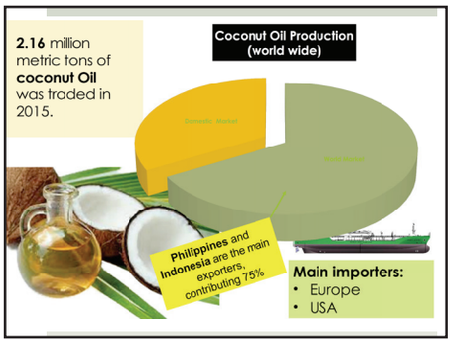
In addition, the Agricultural Training Institute (ATI), the Bureau of Agriculture and Fishery Standards (BAFS) and selected municipalities support the project.



Now, before detailing what the project is about, let's have a brief look first on the coconut oil sector.

Even though we have currently a growing business with whole nuts in some places, did you know that coconut oil is still the principal product made from coconuts?

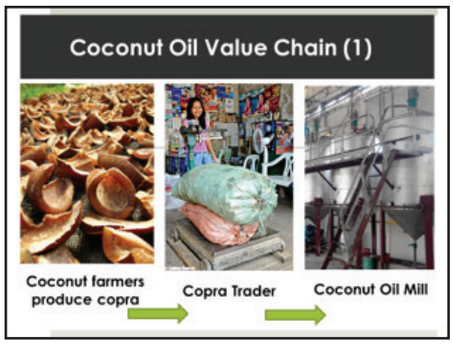
(As we see,) the Philippines is the biggest producer of coconut oil worldwide, followed by Indonesia and India. For several years, on average, worldwide 3.3 million metric tons of coconut oil were produced annually.



Out of this , 2/3 or almost 2.2 million metric tons of coconut oil was traded on the world market. The Philippines and Indonesia are the main exporters, contributing 75% to it. The main buyers are companies in the US and in Europe.

You are now aware that there is still a considerable demand for copra. Before going into more details, it might be of help to have a common understanding of the questions

- where the copra goes, and
- what influences prices



WHEN TALKING ABOUT THE COCONUT SECTOR, WHERE DO WE START?

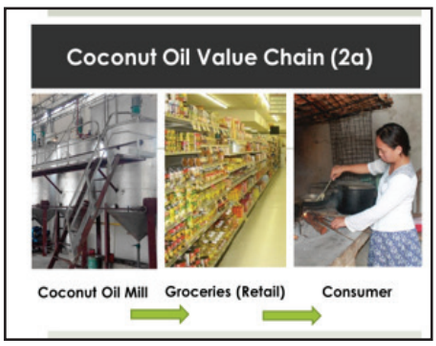
Answer:
At the farm level of course.

TO WHOM DO YOU SELL YOUR COPRA?

Possible Answers:
Oil Mills (e.g. Cargill, CIIF)

Most coconut farmers produce copra and sell it to a local buyer. The buyer either sells it to another trader in the next town or directly to a coconut oil mill in the region. However, some farmers are able to sell for example directly to Cargill. As we know, the coconut oil mills produce coconut oil. But there is also a by-product, the copra meal.

By the way, the words 'Value chain' denote an approach to facilitate the assessment of all the essential steps and activities required to produce and deliver a valuable product - in our case, coconut oil - to consumers.

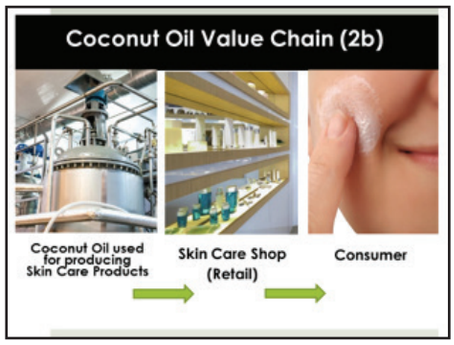


Please consider that here we are looking only at the 'value chain' for coconut oil. Ask the participants,

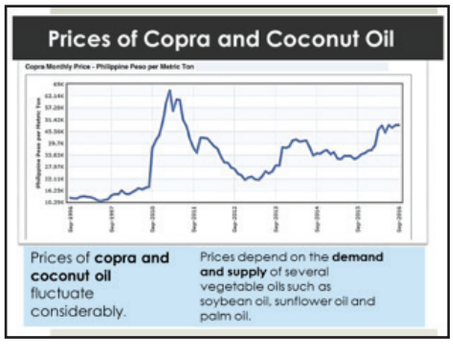
FROM THE MILL, WHERE DOES THE COCONUT OIL GO?

Possible Answers:
Supermarkets/ Groceries

SAY "Many oil mills produce coconut oil as cooking oil for the local market. They package it and sell it to groceries and supermarkets which sell it to consumers."



Yet, there is second way. Several oil mills sell coconut oil in large quantities to foreign companies which use coconut oil to produce a variety of products, among them beauty and skin care products. These products are mostly sold by specialized shops to the consumers.



Now you know where your copra goes… Now let's try to understand what influences the prices of coconut oil and copra.

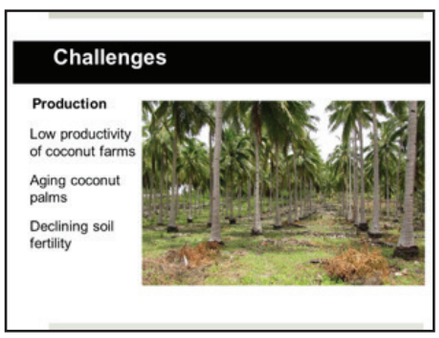
WHO AMONG YOU KNOWS WHY THE COPRA PRICE FLUCTUATES?

Possible answers:
lack of regulation by the government, traders, supply and demand

SAY "(As the graph shows,) throughout the years and decades the prices for copra (and similarly for coconut oil) have fluctuated significantly."

Prices depend on the **demand and supply** of several vegetable oils such as soybean oil, sunflower oil and palm oil. The prices for the different oils are fixed at commodity exchanges such as the Chicago Board of Trade and the Bursa Malaysia.

KEY TOPIC	CHALLENGES IN THE COCONUT INDUSTRY		
DURATION	10 minutes	TRAINING RESOURCES	Tarpaulin



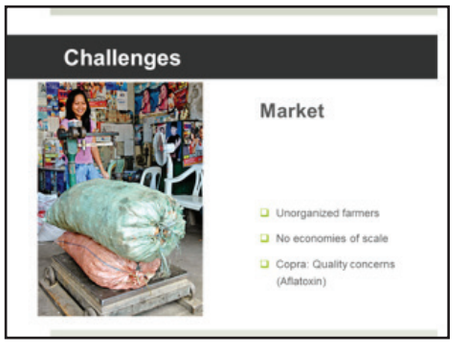
After examining the market opportunities for copra, let us now take a look on the challenges in producing copra. Ask the participants,

ARE YOU EARNING ENOUGH FROM YOUR COCONUT FARMS? DID YOU ALREADY MAXIMIZE THE POTENTIAL OF YOUR FARM? IF NOT, WHY?

Possible answers:
Low productivity, low volume produced, unsustainable practices

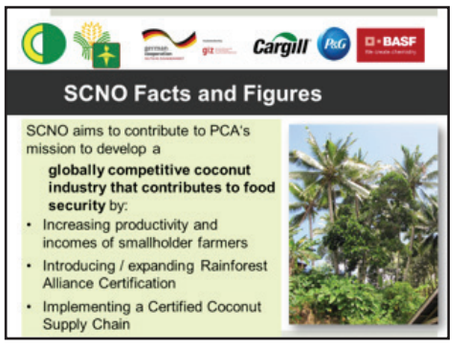
The generally low productivity of coconut farms considerably affects the results in the coconut sector. One factor is the aging coconut palms, another factor is declining soil fertility.

Besides, unsustainable agricultural practices such as the burning of crop residues contribute to the yields.



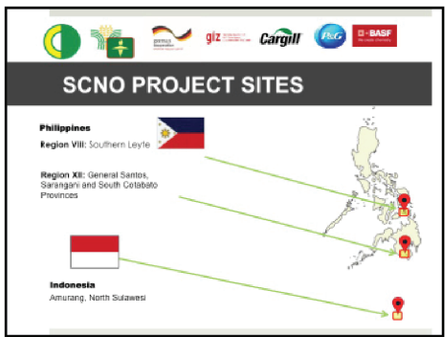
When marketing their products, farmers are usually not organized and sell individually. As a result, quantities to be transported and handled remain small and cost are relatively high. (no economies of scale)

KEY TOPIC	OVERVIEW OF THE SCNO PROJECT		
DURATION	10 minutes	TRAINING RESOURCES	Tarpaulin

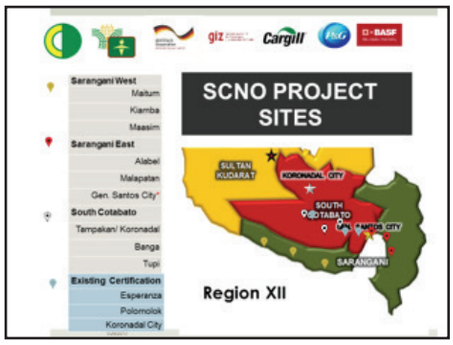


Responding to these challenges, the SCNO, a project of PCA and ATI, supported by GIZ, BASF, Procter and Gamble and Cargill was conceived to help farmers like you to:

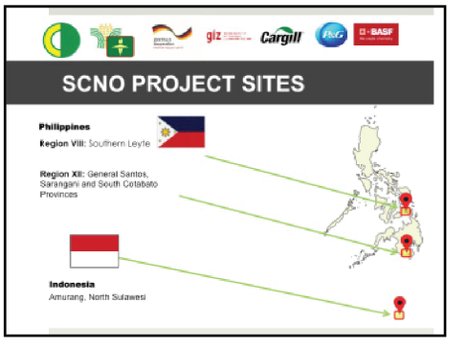
- increase the productivity and incomes of smallholder farmers,
- by introducing and expanding the certification by the Rainforest Alliance, and
- by implementing a supply chain for certified copra.



The Project is implemented in Indonesia and in the Philippines. In the Philippines it is implemented in Region VIII and in Region XII.



In Region XII, the project will be implemented in 8 municipalities in the provinces Sarangani and South Cotabato and in General Santos City.



In Region VIII, in Southern Leyte the project will be implemented in the municipalities Sugod, Bontoc and Tomas Opus.

There will be two kind of trainings for farmers under this project:

- Training for 3000 farmers on coconut farming as a business
- Out of the 3000 farmers, 750 farmers will be selected for support in achieving certification and sustainable agricultural practices, including intercropping.

KEY TOPIC	CLOSING THE SESSION		
DURATION	10 minutes	TRAINING RESOURCES	Pad paper and pen

1. Review/summarize briefly the discussion of this session including the participants contributions and the information provided
2. Request feedback from the participants on this session, give your feedback on the participation and flow of the session.
3. Provide a brief overview of the whole training course
4. We have designed a training curriculum on coconut farming as a business.

SAY "You are among the lucky farmers in the Philippines who can participate in such a training. You will even have the chance to become part of the certification. We will have five more practical and interactive training modules, which introduce you to important aspects of Farming as a Business. It is important that you attend all the training sessions, because they are building up on each other and are prepared to work perfectly together. So, take the chance and work fruitfully together."

Then hint on the next session (Module 1): IS COCONUT FARMING A BUSINESS?

SAY "For our next session, we will start to discuss how your coconut farm business can become successful. In several countries farmers managed to increase their yields and incomes because of the following: farm business training and optimized practices on their farms."

Note: If they are interested in certification and even more knowledge after the following 5 training sessions, they can be selected for an enhanced program free of charge (through Cargill and partners)

REFERENCES / CITATIONS

DTI-GIZ ProGED. Greening the Coffee Value Chain. Slide presentation in PPT.
ACDI/VOCA. Value Chain Approach: An Industry-Based Approach to Economic Growth with Poverty Reduction
Farmer Business School Training Notebook and Workbook Cocoa Production Systems Ghana. July 2015.

MODULE

1

IS COCONUT FARMING A BUSINESS?

In this module, the key elements of a successful coconut farm business will be introduced.

OBJECTIVES

ACQUIRED KNOWLEDGE

Participants can:

- compare other businesses with farming
- differentiate farm enterprise and farm businesses.
- describe that a successful and sustainable business should consider not just economic benefit but also social and environmental dimensions.
- identify causes of the price fluctuation of coconut products.

ACQUIRED SKILL

Participants can differentiate a successful business from successful and sustainable business.

ACQUIRED ATTITUDE

Participants begin to perceive themselves as entrepreneurs, who can improve their yields and income.

METHODS

Plenary discussion and idea or opinion sharing

TRAINING SUPPLIES, TOOLS AND MATERIALS

Manila paper, marking pens, adhesive tape, whiteboard and pen (or blackboard and chalk), or computer and projector

KEY TOPICS

A. What is farming as a business?

- What are examples of business?
- Farm business vs. other types of businesses

B. Farm enterprise vs. Farm business

C. Key Dimensions for successful business

D. Understanding price changes

DURATION

1hour

KEY TOPIC	INTRODUCTION		
DURATION	5 minutes	TRAINING RESOURCES	

ACTIVITIES

- Welcome participants. Introduce the module or session and its objectives
- **GET ATTENTION**
  This module will help you explore ways so that your farm will be more profitable.
- **EXPLAIN OUTCOMES**
  By participating in this training you will be able to understand that a successful farming requires to see it as business in order for farmers to manage improve their yields and incomes substantially
- **EXPLAIN STRUCTURE**
  In this training, we will have very interesting activities and discussions.

KEY TOPIC	ELEMENTS OF FARM BUSINESS		
DURATION	10 minutes	TRAINING RESOURCES	Manila paper, adhesive tape and marking pen

PLENARY DISCUSSION: Ask the farmers,

WHAT EXAMPLES OF ENTERPRISES DO YOU KNOW?

Possible Answers:

Restaurant	Bigasan(rice retailer)	Car dealers
Supermarket	Barber shop	Banks
Sari-sari store	Furniture shop	Others…..
Welding shop	Gasoline station	
Coprahan	Pharmacy	

WHAT WOULD THESE ENTERPRISES NEED TO OPERATE?

Possible Answers:

Customers	Building
Laborers	Land
Capital	Utilities (e.g. water, electricity)
Equipment	

Write their responses using manila paper and marking pen or whiteboard and pen.

Give your input by clustering the answers:

Input
- Laborers
- Capital
- Utilities (e.g. water, electricity)
- Equipment

Production Unit
- Building

Market
- Customers

KEY POINTS
All businesses have the following key elements:

INPUT	PRODUCTION UNIT AND PRODUCT	MARKET

Note: In case farmers would not be able to draw answers, trainer could give hints to answers or should supply needed information.

Farming has similarities with business enterprises. It requires **inputs for producing, production unit** and resulting **product**, and the **market that gives the income.**

Farmers therefore must develop a business mindset so that they can ably treat their farming as a business and do what is appropriate in order to succeed.

KEY TOPIC	FARM ENTERPRISE AND FARM BUSINESS		
DURATION	10 minutes	TRAINING RESOURCES	Manila paper, adhesive tape and marking pen

PLENARY DISCUSSION: Point out following:

- To understand whether a farm is a successful business, it is important to give attention to individual crops to which we refer as a farm enterprise.
- **Farm enterprise refers to the individual product of the farm.**
- Each crop or livestock production activity is considered as an enterprise.

Ask the participants.

WHAT ARE EXAMPLES OF FARM ENTERPRISES IN A DIVERSIFIED FARM?

Possible Answers:


Coconut Farm


Banana Farm


Cacao Farm

Knowing this, we can now analyze how one enterprise contributes to the success of a farm business.

Remember that all enterprises in a farm make up your farm business.

KEY TOPIC	KEY DIMENSIONS FOR SUCCESSFUL FARM BUSINESS		
DURATION	10 minutes	TRAINING RESOURCES	Manila paper, adhesive tape and marking pen

PLENARY DISCUSSION Ask the participants

WHEN DO WE SAY THAT A FARMING BUSINESS IS SUCCESSFUL?

Possible answers from the participants:

ECONOMIC	ENVIRONMENTAL	SOCIAL
Higher Income - o Good yield o Quality products o Better price o Others…	- Healthy environment	- Healthy people (farmer, consumer) - Others…

Success in a farm business means getting the optimum profit while respecting people and nature. While we maximize profit, the workers/communities welfare and environment should not be degraded.

KEY TOPIC	UNDERSTANDING PRICE CHANGES AND FLUCTUATIONS IN THE PRICE OF COPRA		
DURATION	20 minutes	TRAINING RESOURCES	Annex 1 Opinion Poll Guide

In the economic dimension we talked earlier, one of the indicators is better price. Now, let's discuss price fluctuation of agricultural commodities.

Opinion Poll: Conduct an opinion poll.

1. **Get** the Opinion Poll guide and questions from Annex 1 of this module.
2. **Read** to the participants the statements to be answered by **yes** or **no** only.
3. **Instruct** the participants to raise their hands to signal their answers.
4. **Count** the responses (Yes and No) after you ask each question.
5. After the activity, **tell** the participants that the activity (opinion poll just meant to get their candid thoughts about how prices of products change).
6. **Process** their responses and congratulate them for their openness.
7. **Deepen** their learning by briefly explaining how prices of agricultural products change and explain.

1. According to the season of the year
   - Peak season (more supply) - price is low
   - Lean months(less supply) - price is high
2. Between years:
   - Price of a product that is needed by more and more people will rise from one year to the next
3. The price that is produced in greater abundance will fall from one year to the next
4. Global or international market price changes affect local prices, example: copra. Global market dictates prices and price changes in agricultural commodities like copra.

Note:
Trainers SHOULD be ready with data on prices of agricultural commodities.

- *Cite concrete examples when prices of commodities are high or low in the locality.*
- *Suggest to adjust planting season but consider the risk (e.g. weather).*

KEY POINT To do successful business, you must be informed on the prices (inputs and produce) at different markets. This allows you to plan and to make decisions on the purchase of inputs and the sale of their produce.

KEY TOPIC	CLOSING THE SESSION		
DURATION	5 minutes	TRAINING RESOURCES	

ACTIVITIES

Summarize the whole session. Key message at the end of the module:

1. We understand now that all business has the following elements: **input, product, and market.**
2. We understand now the factors that influence prices.
3. We understand now that a successful farm would not only consider economic benefits but also social and environmental aspects.
4. By better knowing how it works, we can adjust our farm management and improve our farm performance.

5. Ask for Feedback.
6. Future Link:

SAY "For our next session, after understanding that farming is a business, we will now understand what should be considered so that your farm business will be successful."

REFERENCES / CITATIONS

FBS-GIZ Manual. Module 1 Farming as a Business. February 2015. pp 7-8.
Pricing movements of copra in the Philippines. Doloriel, et. al. undated.
DA-ATI/DAR/FAO FBS Manual: a handbook for Filipino Farmers. 2015.
Farmer Business School Training Notebook and Workbook Cocoa Production Systems Ghana. July 2015.

OPINION POLL GUIDE

The opinion poll guide is the tool to be used to test farmers understanding on price fluctuation of coconut products.

Opinion Poll Statements/Questions:

1) Prices of product are generally low at harvest season. Yes
2) Prices of products are generally high during planting or off-season. Yes
3) Prices of products that are needed by more and more people will go up from one year to the next, or year to year. Yes
4) The price of commodities produced in increasing abundance will fall from one year to next. Yes
5) It is safe for the business to get price information every year. Yes
6) Prices of inputs such as fertilizers and insecticides generally go up every cropping season. Yes
7) The USD-PHP exchange rate affects prices of farm inputs and farm products. Yes
8) Competition with similar oil products, like palm oil, affect the prices of copra. Yes
9) If the global market price for copra is high, the local price of copra is also high. Yes

MODULE

2

FARM BUSINESS CYCLE

In this module, the diagnosis and finding opportunities, planning, implementation and evaluating the farm businesses tools as aid in making decisions to improve the performance of the farm will be introduced.

OBJECTIVES

ACQUIRED KNOWLEDGE

Participants will know that diagnosis and finding opportunities, planning, implementation and evaluating the farm businesses are important decision tools to improve the performance of the farm business.

ACQUIRED SKILL

Participants can use the tools to analyse simple businesses

ACQUIRED ATTITUDES

Participants begin to consciously to use the tools as aid in improving the performance

METHODS

- Case study: Nong Juan's story and group discussion
- Plenary discussion and lecture

TRAINING SUPPLIES, TOOLS AND MATERIALS

- Nong Juan's story, see Farmers' Workbook
- Chart/tarp of farm business cycle
- Manila paper, marking pens, whiteboard and pen(or blackboard and chalk), adhesive tape, push pins, prepared exercises
- Computer and projector (optional)

KEY TOPICS

The Farm Business Cycle

1) What is farm business cycle?
2) What are the components of farm business cycle
    - Diagnosis and finding opportunities
    - Planning
    - Implementing
    - Evaluating

DURATION

1hour

KEY TOPIC	INTRODUCTION		
DURATION	5 minutes	TRAINING RESOURCES	

ACTIVITIES

- Welcome the participants. Refer to Module 1: Farming is a business
- **GET ATTENTION**
  This session will explore one important aspect of farming business activities. Like the production, they occur in cycles.
- **LINK**
  After learning that farming is a business, what needs to be considered to be successful.
- **EXPLAIN OUTCOMES**
  At the end of this session participants should understand the different components of business cycles and use them as a tool for planning, improving and making decisions of your farm.
- **EXPLAIN STRUCTURE**
  • Session will start with a case study which the participants will analyse in work groups.
  • Each group will answer a set of guide questions.
  • There will be a synthesis after the group activity.

KEY TOPIC	APPLICATION OF THE FARM BUSINESS CYCLE USING PREPARED CASE STUDY 1) Diagnosis and finding opportunities 2) Planning and Implementing 3) Evaluating		
DURATION	25 minutes	TRAINING RESOURCES	Nong Juan's Story included in the Farmer's Workbook. Manila paper, adhesive tape and marking pens

CASE STUDY CUM GROUP DISCUSSION:
• **Divide** the participants into four (4) groups
• **Assign** each group to read and study Nong Juan's Story included in the Farmers' Workbook and then to answer the questions assigned to the group.
• **Provide** each group manila paper and marking pen. **Allow t**hem 15 minutes to **read** and discuss the case study, and to answer the questions found at the end of the story
• **Ask** them to post their answers on the wall or board (if available)

KEY TOPIC	THE FARM BUSINESS CYCLE		
DURATION	25 minutes	TRAINING RESOURCES	PPT or Tarpaulin of the Farm Business Cycle

Note: The processing of output of the case analysis will be done by the trainers who will read, discuss and explain the contents of the farm business cycle.

PLENARY DISCUSSION

Responses for Output 1:

WHAT DID NONG JUAN REALIZE ABOUT THE FARMERS IN HIS BARANGAY?

• They are only planting coconut which is not properly taken care of.
• Coconut farm has very low yield.

WHAT DID NONG JUAN DO TO IMPROVE THE PERFORMANCE OF HIS FARM?

• Seek advice from technician and have known that he should consider planting additional crop in the coconut farm and ginger was recommended to be suitable to coconut farm
• Talked to buyers in the nearby market

SAY "These as all important to know as this will help you later in deciding what crop to plant."

Diagnose and Find Opportunities by:
• identifying problems that are limiting the farm's performance (find out what went wrong). For example, the coconut farms in Nong Juan's barangay were underutilized.
• determining new opportunities that can improve performance (find out what more can be done)
For example, Nong Juan decided to plant new crop (ginger) after investigating the local market and talking to the technicians.

Next question,

WHAT DID NONG JUAN DECIDE TO DO?

He decided to plant ¼ ginger and has done calculations on possible profit. He also listed all primary inputs required and the cost of inputs.

WHAT WAS HIS TARGET PRODUCTION?

2,500 kg

WHAT IS HIS PROFIT?

PhP 37,500

Responses from Group 2:

HOW DID HE ARRIVE AT THAT FIGURE?

TOTAL SALES	-	TOTAL EXPENSES	=	PROFIT
PHP 50,000	-	PHP 12,500	=	PHP 37,500

This is the content of the Planning your Farm Business. This means exploring these options and decide on what to plant/adjust and what will be your financial requirements. Nong Juan projected that he will need **PhP 12,500** in order to produce 2,500 kg of ginger.

Responses for Output 3

WHEN IT IS CLOSE TO HARVEST TIME, WHAT DID NONG JUAN DO?

Responses from Group 3:
A storm hit their area and his gingers were affected and he consulted the technician who advised him to replant so he can deliver as committed with his buyers.

HOW DID HE SELL HIS GINGER?

Responses from Group 3:
While the buyers argued that he is a month late, he could be paid after 60 days and his produce is more expensive than the other farmers, he was able to convince them to pay at the right time and at the right price because of the good quality of ginger.

Summary: To implement the plan, it would require to organize necessary farm inputs, labor, and transportation, produce the required volume as agreed with your buyers, monitor and market. For example, Nong Juan made sure that he could sell the ginger by convincing the three buyers.

Responses for Output 4

AFTER NONG JUAN SOLD ALL HIS GINGER AND WENT THOME, WHAT DID HE DO?

He evaluated his ginger enterprise by comparing what he has planned and what actually happened.

DID NONG JUAN MAKE A PROFIT? HOW DID HE KNOW?

Yes, he calculated his total sales then, deduct the expenses he incurred in producing ginger.

WHAT ARE THE THINGS HE LEARNED FROM HIS EVALUATION? WHAT WOULD HE DO ABOUT IT?

• The need to replant the ginger after a storm has ravaged it. Next planting, he would ask the technician when is the right season of planting to avoid great damage (e.g. storm)
• The need to anticipate problems from the buyers. Next time, he would confirm deal with buyers beforehand.

Summary: Following the implementation of the business, you need to evaluate if what you've planned worked or not. If it did not worked then, you have to consider what needs to be adjusted or needs to be done differently.

KEY TOPIC	CLOSING THE SESSION		
DURATION	5 minutes	TRAINING RESOURCES	

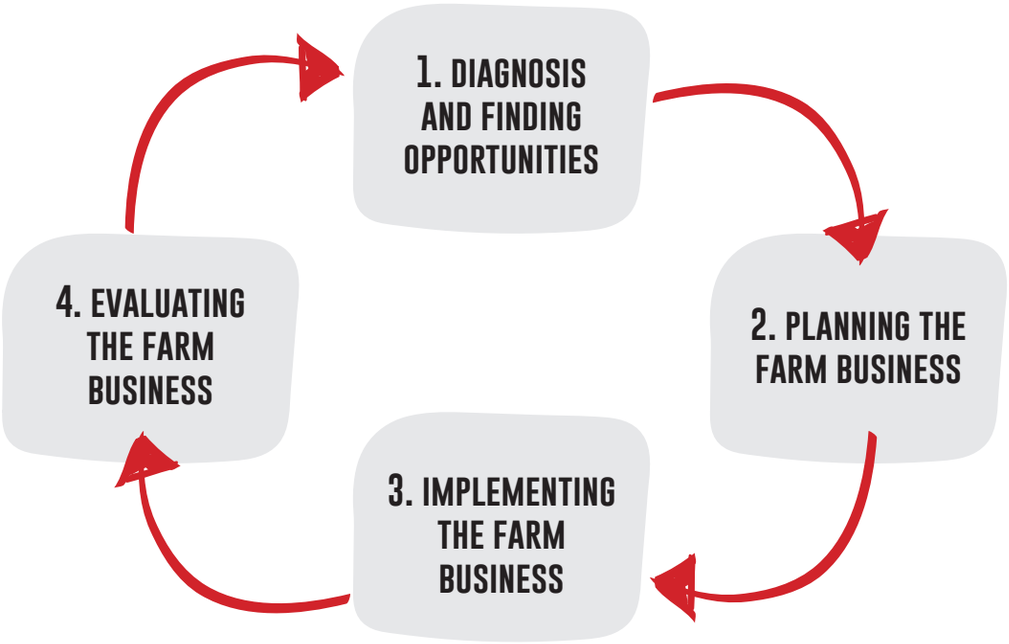
1. Review/summarize briefly the outcomes. It would be helpful for farmers to understand the farm business cycle so they can analyse how to improve the performance of their coconut farm.
2. Ask the participants if they have questions. Ask for feedback on the session conducted.
3. Provide a brief hint on the next session "Farm Assessment," the 1st session of Module 3: Diagnosis and Finding Opportunities

SAY "For our next meeting, we will apply what we have learned in the farm business cycle. We still assess your existing farms and find what's limiting its performance."

REFERENCES / CITATIONS

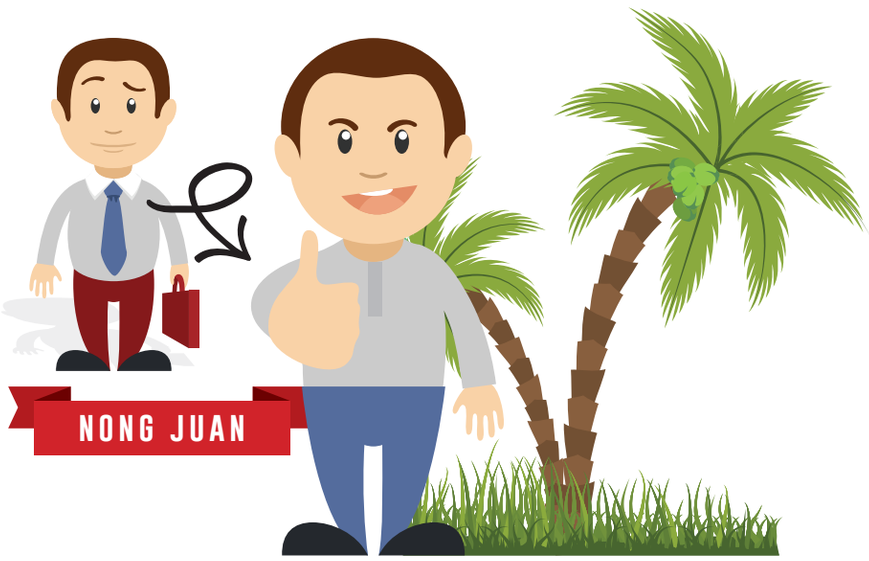
DA-ATI/DAR/FAO FBS Manual: a handbook for Filipino Farmers. 2015.
Farmer Business School Training Notebook and Workbook Cocoa Production Systems Ghana. July 2015.

ANNEX 1: THE FARM BUSINESS CYCLE



ANNEX 2: ACTIVITY MATERIAL

NONG JUAN'S STORY : A CASE STUDY HIGHLIGHTING IMPORTANCE OF FARM BUSINESS CYCLE AS TOOL IN IMPROVING THE PERFORMANCE OF COCONUT FARMS



Nong Juan was an ordinary businessman living in the city. Tired of the busy life, he decided to go back to the countryside to manage a hectare of coconut farm he inherited from his parents. However, he wanted to make sure that he would be earning enough to support his family on a long term basis. For this, he needed to know the current farming practices and see what could be done to raise the income generated by the land.

Upon his return, Nong Juan observed his neighboring area and found that most of the farmers have only planted coconuts in their farm. He also said that farmers are also not improving the fertility of the soil in their coconut farms, thus getting very low yield. This is a common practice in their area and they said they have been used to it for a long time. He also learned that these farmers are selling their product to the first buyer who came to the farm.

As a next step, Nong Juan consulted an agricultural technician. The technician told him to consider **planting additional crops** in his coconut farm, especially in the vacant spaces in between his coconut trees for additional products and income. The technician advised him to choose high value crops which are suited to his area.

Nong Juan also visited the nearest town where he talked to buyers, and found out that there was a high demand for **ginger** in the market. He met three buyers who said that they would buy ginger from him, provided it was of good quality. They said their usual buying price for good ginger was PhP20.00 per kg.

Nong Juan referred again to the technician who affirmed that ginger is also suited to grow under the coconut trees. The technician explained how to plant ginger and advised Nong Juan to start with a ¼- hectare plot in his farm. He also helped him do business calculations considering his possible expenses and earnings from planting ginger in his ¼- ha area to determine if he could make a profit by growing and selling ginger. He could possibly harvest about 2,500 kg of ginger as its normal yield is 10,000 kg per hectare.

After completing his investigations, Nong Juan decided to grow ginger on ¼ hectare alongside his coconut trees.

Based on what he had learned from the market, other farmers and from the extension worker, Nong Juan set himself a goal of growing ¼ hectare of ginger in between his coconut palms and marketing it to the three nearby buyers. He figured out that if he sold 2,500 kg of ginger, he would obtain a total sales income of PhP50,000. But in order to calculate the profit he could make, he first needed to know the cost of the inputs that would be needed to grow and sell the crop.

Nong Juan listed the primary inputs he would need to grow the ginger such as planting material, fertilizer, pesticides, and labor. He calculated that all expenses would amount to PhP12,500.00, meaning that he could expect a profit of **PhP 37,500.00** from ginger production in addition to his income from the coconut palms.

TOTAL SALES	–	TOTAL EXPENSES	=	PROFIT
PHP 50,000	–	PHP 12,500	=	PHP 37,500

Of course, Nong Juan now needed to implement his plan, i.e. buy the immediate inputs, organize labor, prepare his land and plant the ginger. He also provided additional fertilizer for his coconut trees.

When Nong Juan had arranged all the inputs, he prepared his land and planted the ginger. After a month however, a strong storm hit their area and affected greatly his crops. Due to the heavy rainfall, the rhizomes started to rot.

Nong Juan consulted the extension worker and was advised to replant. Even though this was an extra cost for him, he obtained new planting materials for planting, mindful that he made a promise to several buyers in the market to supply good quality ginger. He did quick calculations and knew that he would still make a profit.

This time the plants grew well and after nine months, Nong Juan harvested his ginger. He was a month later than expected, but it was worth it.

As the ginger was harvested from the field, it was cleaned, sorted and packed. When everything was weighed, Nong Juan discovered that he had 2,300kg. It was a little less than expected, but based on his calculation, Nong Juan knew that he would still make a profit.

The vehicle arrived as planned. The gingers were loaded onto the vehicle and Nong Juan took his ginger to the three retailers.

RETAILER 1
Initially, the first shop refused to take his ginger since Nong Juan was one month late. However, he showed the storekeeper the quality of his produce and convinced him to buy it.

RETAILER 2
The second buyer agreed to take the product, but wanted to pay Nong Juan after 60 days. Nong Juan explained that this was his first crop and he wanted to keep selling to this buyer, but couldn't if they could not make a better deal on payment. In this way, Nong Juan persuaded the storekeeper to pay 50 percent immediately and 50 percent after sixty days.

RETAILER 3
The third buyer refused to pay the agreed price. He said that he was able to get cheaper ginger from another farmer. Again, Nong Juan showed the storekeeper the quality of the product. He also told him that his competitors had bought the ginger at the agreed price. In this way, Nong Juan convinced the storekeeper to pay the agreed price-in cash.

Nong Juan came back home a very happy man! However, he realized that his task was not complete. He still had to **evaluate his ginger enterprise**, by comparing what he planned with what actually happened. He also needed to calculate how much profit he had made.

He noted that he had to replant the ginger because this was affected by a big storm. He decided that, next time, he would check with the extension worker to determine the right season of planting to avoid great damage.

Also, he did not expect the buyers to present problems. The first vendor had been concerned about the delay in delivery. Next time, he would make sure his buyers are kept informed. He also did not expect to be asked to be paid in 60 days. Next time he would confirm the deal beforehand.

Did he make profit? Nong Juan knew that the income from sales is not equal to profit. He sold all 2,300 kg of ginger at P20.00 per kg. Thus his total income was PhP46,000.00. His costs were PhP17,720.

So, his profit from his ginger was PhP28,280. This is aside from his income from his coconuts, which is P20,121. This is much higher, compared to the average net income of 6,000.00 from coconut alone with no fertilizer applied. So, on the whole, Nong Juan got a total income of P48,401.00 from his ginger and coconut crops.

TOTAL SALES	-	TOTAL EXPENSES	=	PROFIT	+	PROFIT	=	TOTAL INCOME
PHP 46,000	-	PHP 17,720	=	PHP 28,280	+	PHP 20,121	=	PHP 48,401

This was the first time Nong Juan had been responsible for the family farm, and it earned more income than last year. His parents were very proud of him and asked what he was going to do with the farm next year. He said he would investigate more opportunities. He would again research the market; speak to the extension worker and other farmers. When he had enough information, he would decide what to do.
For the day, Nong Juan wanted to celebrate! He invited his family, Nong Manny and his friends to party. All of them wanted to know how Nong Juan had made so much money from his farm. He shared the whole story with them, so they could also learn from his experience.

ANNEX 3: QUESTIONS FOR GROUP ACTIVITY

GROUP 1:
What did Nong Juan realize about the coconut farmers in his barangay? What did he decide to do? How did he do it? Why is this important?
What did he learn from his visit to the market?
Which phases can you distinguish in Nong Juan's business?

GROUP 2:
What did Nong Juan decide to do? What was his plan?
What was his target production?
What was his target profit? How did he arrive at that figure?
Which phases can you distinguish in Nong Juan's business?

GROUP 3:
When it was close to harvest time, what did Nong Juan do?
How did he sell his ginger?
Which phases can you distinguish in Nong Juan's business?

GROUP 4:
After Nong Juan sold all his ginger and went home, what did he do? Why?
Did Nong Juan make a profit? How did he know?
What are some of the things he learned from his evaluation? What did he do about it?
Which phases can you distinguish in Nong Juan's business?

MODULE

3

DIAGNOSIS & FINDING OPPORTUNITIES

In this module, the challenges limiting the farm's performance will be assessed and the opportunities will be analysed in order to improve the farm performance thus, increasing its profitability.

SESSION 1: FARM ASSESSMENT

OBJECTIVES

ACQUIRED KNOWLEDGE

The participants are able to:

1. Apply farm assessment in farm planning
2. Identify the factors in assessing farm
3. Enumerate common measurements and units of production factors, products, and inputs
4. Explain the importance of standard units and measures in farming as a business

ACQUIRED SKILLS

The participants will be able to measure their farms and parts there off as well as to calculate required quantities of seeds, seedlings and other farm inputs

ACQUIRED ATTITUDES

1. The participants appreciate the importance of farm assessment and its relevance to farm planning
2. They become aware of that they can optimize their farm best if they take off decision with regards to inputs and units.

METHODS

Plenary discussion, simulation, group discussions, field activity and lecture

TRAINING SUPPLIES, TOOLS AND MATERIALS

- Farm assessment and farm assessment guide and template for assessment (see Farmers' Workbook)
- Manila paper, marking pens, whiteboard and pen(or blackboard and chalk), adhesive tape, push pins
- Meter Stick or tape measure
- Laptop computer and projector, optional

KEY TOPICS

A. Farm assessment and its importance
B. Knowing most common measurements, units and tools for various aspects of farm business

DURATION

2 hours

KEY TOPIC	INTRODUCTION		
DURATION	5 minutes	TRAINING RESOURCES	

ACTIVITIES

- Greet and motivate the participants (Introduce yourself)
- **GET ATTENTION**
  Do you want to improve your farm's performance? Then, this session will be of interest to you.
- **LINK**
  You have learned in the previous the components of a farm business cycle, now we look deeper into its first component we call Diagnosis and Finding Opportunities.
- **EXPLAIN OUTCOMES**
  By the end of the training, you will
  - identify and assess opportunities in our farms
  - understand how to measure and compute the size of your farms and its inputs requirements
- **EXPLAIN STRUCTURE**
  In this training, you will draw your existing farm and assess what limiting its performance.

KEY TOPIC	WHAT IS FARM ASSESSMENT?		
DURATION	30 minutes	TRAINING RESOURCES	• Prepared farm assessment guide from Trainer's Resource Kit • Light-colored cartolina or manila paper, crayon, pencil, meter stick, marking pen • Template of strengths and weaknesses from Trainer's Resource Kit

ACTIVITY 1: SIMULATION

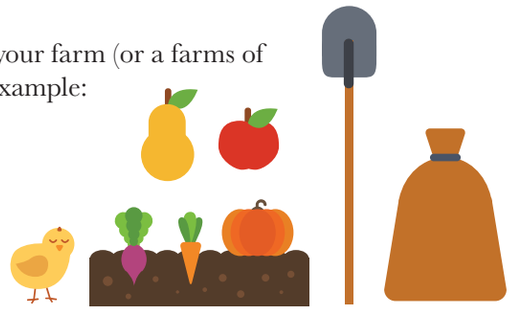
Draw your farm and the present use of farm land (its present contents/components):

1. Introduce the activity and its objectives.
2. Divide the participants into 4 or more groups.
3. Provide the participants Manila paper, pencil, marking pen, crayons; and the activity guides.
4. Provide all group members with activity guide and advise them to read the instruction and determine each task. Give them 30 minutes to do this exercise.

Instructions:

1) Draw the farm landscape and its existing land use: especially your farm (or a farms of one of your group members farm) Include all components, for example:

- Coconut palms
- Trees (specify, which)
- Cacao and other small trees and shrubs
- Intercrops (specify what)
- Livestock (specify what)
- Others (creeks or ponds, steep slopes, specify what)



If drawing on Manila paper (24 x 36 in), consider the following scales: 10 meters in reality are 1 inch on paper. If the farm is about 1 hectare, 10 meters can be 2 inch on paper. (10 meters is the most common spacing between coconut palms). Label each enterprise in the drawing. You may use symbols or representations such as small circles, triangles and squares indicating different kind of trees.

2) Discuss and agree on the accurateness of the drawing you have made as a group.
3) As soon as you have finalized your drawing, go back to the shed and discuss your output.
4) Assess/evaluate on the following particulars:
- What are the specific enterprises?
- How much farm area is devoted to each enterprise/business?

5) Consolidate findings of your farm assessment.

Put together all your findings using the **Template of Strengths and Weaknesses**. You will have entries about land use (vegetation /livestock), soil health, resources available inside and outside the farm, profit, market, others.

Example:

BUSINESS ASPECT	STRENGTHS	WEAKNESSES
Use of Farm Land	My farm produces enough food for my family with some surplus to sell. My farm is good for many crops.	I don't actually know which of my crops is most profitable. My cattle do not get good prices at the market because they are too thin.

6) Post outputs in front.

Criteria to identify strength and weaknesses of coconut farms:

MARKET

- Is there available market?
- Are your producing enough for your target market?
- Is the price of the produce competitive?

PRODUCTIVITY

- What is the age of the coconut palms? What is the spacing? Is there sufficient light for other crops? On the contrary, is the shade sufficient for certain crops?
- Do I get optimum production of my farm?
- Do I practice the technologies to better manage the farm?

FARM CONDITION

• Is the whole farm or sections of the farm are sometimes flooded? If yes, how often?
• Could it be prevented by digging a drainage canal?
• Or is the area well drained? (Many kinds of fruit trees are sensitive to flooding and waterlogging)
• What is the soil type?
• How deep is the water table?
• How deep is the bedrock?

TOPOGRAPHY

• Is the farm on a slope? If yes, how steep? (If the slope is very steep, this would exclude some crops. This consideration could result in planting of permanent crops to keep soil in place)
• Do you know the pH-level? (Is the soil acidic?)
• Are there weeds which are difficult to control such as cogon or hagonoy?
• Distance to road? Distance to next town?

KEY TOPIC	IMPORTANCE OF FARM ASSESSMENT AND ITS APPLICATION TO FARM PLANNING		
DURATION	25 minutes	TRAINING RESOURCES	Manila paper, adhesive tape and pentel pen

PLENARY DISCUSSION: Summarize the results of the workshop. Say: In your assessment, you have cited that: Mention the strength and weakness presented.

KEY MESSAGES

SAY "In a nutshell, we are doing the farm assessment to point out the strengths and limitations of the farm in order to improve the performance of your farm."

Ask the participants:

ARE THERE, FOR EXAMPLE, VEGETABLES FAMILIES ARE REGULARLY BUYING, BUT WHICH COULD BE PRODUCED IN THE FARM? WHAT OTHER FOOD COULD EASILY BE GROWN IN THE FARMS?

Possible answers:
Ginger, garlic, tomatoes, eggplant, squash etc.

SAY "These are examples of produce that need to be prioritized so that your immediate needs are readily available but of course, you will have to consider the suitability and marketability of these vegetables/crops."

But aside from their enterprise potentials farms may also be assessed if they:
• **Compete**—when the two crops/animals use the same resources. For example, if a farmer does not have enough labor to harvest two crops at the same time, one crop can only be increased is one is reduced.
• **Complement**—when two crops/animals are supportive to each other. For example, if you have poultry and corn enterprises, the manure of poultry will be used as fertilizer and the corn grains can be fed to poultry.
• **Supplement**—when one crop/animal use the resources that might not have been used. For example, duck droppings can be used as feed to the fish which is could have been wasted.

BUSINESS ASPECT	STRENGTHS	WEAKNESSES
Use of Farm Land	My farm produces enough food for my family with some surplus to sell. My farm is good for many crops.	I don't actually know which of my crops is most profitable. My cattle do not get good prices at the market because they are too thin.

COMPETITIVE ENTERPRISE	SUPPLEMENTARY ENTERPRISE	COMPLEMENTARY ENTERPRISE
Enterprises "compete" when they use the same resources **EXAMPLE** If a farmer does not have enough labor to harvest two different crops at the same time, one crop can only be increased if the other is reduced.	Enterprises supplement one another when they use resources that might otherwise be not used. **EXAMPLE** A farmer has fish and duck enterprise. The duck droppings are utilised by the fish in the fishpond which could otherwise have been wasted. In such case, the two enterprises are supplementary: the ducls supplement the feed for the fish.	Enterprises "complement" one another when they interact in a supportive, two-way process. **EXAMPLE** Poultry produces manure. The manure can be applied as a fertilizer to crop enterprises. The maize grain can be fed to the poultry. This relationship between the livestock and crop enterprises shows that the two are complementary.

KEY TOPIC	KNOWING THE MOST COMMON MEASUREMENTS AND UNITS FOR VARIOUS ASPECTS OF FARM BUSINESS		
DURATION	30 minutes	TRAINING RESOURCES	Tape measure or meter stick

FIELD ACTIVITY:

You now know the limitation of your farm's performance. Ask the participants to group themselves into three and for 30 mins measure the coconut farm plot. One group will use meter stick or tape measure, another group will using number of steps to measure and another group will estimate by looking at it.

Ask the participants to post result of their measurement.

KEY TOPIC	IMPORTANCE OF KNOWING COMMON MEASUREMENTS AND UNITS IN FARM ASSESSMENT		
DURATION	25 minutes	TRAINING RESOURCES	Manila paper, adhesive tape and pentel pen

DISCUSSION/LECTURE: Ask the participants:

WHAT ARE YOUR REFLECTIONS AFTER THIS EXERCISE?

1. The results of calibrated pace or steps in measuring farm area cannot always be reliable and accurate.
2. Use of meter stick, rope with ribbons or bamboo stick per meter is still the most accurate way of measuring.

WHY IS IT IMPORTANT FOR FARMERS TO KNOW THE PRECISE UNITS AND MEASUREMENTS IN RELATION TO FARM BUSINESS?

Knowing the units and measurements useful to farm business enables them to:
1) Know precisely their assets such as land and labour
2) Correctly plan production and the quantities of seeds, seedlings and other inputs that need to be purchased in time
3) Apply correct amounts of inputs
4) Be able to estimate the quantity harvested on a per hectare basis
5) Evaluate correctly profits or losses.
6) To provide realistic yield estimates

Ask the participants:

WHAT ARE THE EFFECTS IF WE UNDER OR OVERESTIMATE THE FARM SIZE?

Answer:
a. Underestimates in the field size may lead to too little fertilizer use; and too little seeds. This can lead to low yields.
b. Overestimates in the field size may lead to too much fertilizer use and plants too closely spaced together. This can lead to low yields and unnecessary spending.

KEY TOPIC	CLOSING THE SESSION		
DURATION	5 minutes	TRAINING RESOURCES	

• Review the outcomes/results of this session:

SAY

"In our last exercises, you have learned to identify strength and limitations of your farm as well as to know the importance of knowing the measurements of your resources."

• Ask the participants if they have any other questions. Ask for feedback on the session conducted.
• Provide link to the next session: After knowing the strengths and limitations and measurements of your farm, we will next discuss the tools that will be used to record the inputs and outputs of your farm.

REFERENCES / CITATIONS

FBS-GIZ Training Notebook and Workbook July 2015. pp. 6-10
DA-ATI/DAR/FAO FBS Manual: a handbook for Filipino Farmers. 2015.
Farmer Business School Training Notebook and Workbook Cocoa Production Systems Ghana. July 2015.

ANNEX 1: STANDARD MEASURES & UNITS

DISTANCE	Kilometer (km) : 1 km is 1,000 meters (m) :
LENGTH OR WIDTH OF A FIELD	Meter (m): 1 m is 100 centimeters (cm).
SURFACE AREA	Meter squared (m2) Hectare (ha) : 1 ha is 10,000 m2
YIELD PER UNIT AREA	Yield per hectare : Yield per 2.5 hectare e.g. 400kg/ha dried cocoa beans : 160kg/hectare
VOLUME	Liters (L)
WEIGHT	Grams (g) Kilograms (kg) : 1 kg is 1,000 g Ton (T) : 1 Ton is 1,000 kg
AGRICULTURAL WORK	Man-days (MD): The work of an adult man in one day. Example: Work on one hectare requires 10 Man-days. (10 MD / ha). The work can be done by 1 man in 10 days or 10 men in 1 day. It is important to specify the number of hours in a work day.

MODULE

3

DIAGNOSIS & FINDING OPPORTUNITIES

In this module, the challenges limiting the farm's performance will be assessed and the opportunities will be analysed in order to improve the farm performance thus, increasing its profitability.

SESSION 2: RECORD KEEPING

OBJECTIVES

ACQUIRED KNOWLEDGE

Participants understand:

1. That records are essential in farm business operation
2. That several kinds of records need to be kept

ACQUIRED SKILLS

1. Participants are able to determine what records are needed to be maintained.
2. Participants know what entry should be posted in the records book and how to post the entries.

ACQUIRED ATTITUDES

Participants appreciate having records on expenses and income incurred in the farm enterprise.

METHODS

Plenary discussion and group activity

TRAINING SUPPLIES, TOOLS AND MATERIALS

Whiteboard and pen(or blackboard or laptop computer and projector, handout- record keeping in templates

KEY TOPICS

A. What is record keeping?
B. Most important types of records
C. The record keeping process

DURATION

1 hour

KEY TOPIC	INTRODUCTION		
DURATION	5 minutes	TRAINING RESOURCES	

ACTIVITIES

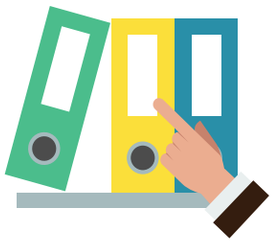
- Welcome the participants. Introduce the session and its objectives
- **GET ATTENTION**
  This session will teach you how to make tools to measure the success of your farms.
- **LINK**
  In the last module we discussed Nong Rod's business enterprise. But how will he know the total costs and income from his farm? Did he gain? Or lose?
- **EXPLAIN OUTCOMES**
  In this session we will teach you how to make and why you need to prepare farm records.
- **EXPLAIN STRUCTURE**
  In this session we will explain to you the importance of keeping records and we will have some group activity on how to do it.
- **ENCOURAGE** the participants by telling them that correct records will be essential for successful farm business.

KEY TOPIC	RECORD KEEPING		
DURATION	25 minutes	TRAINING RESOURCES	PPT slides

LECTURE-PRESENTATION: Deepen their learning by giving brief your lecture or inputs.

WHAT IS RECORD KEEPING?

Record keeping means that you write down all the money that comes into your business and all the money that goes out of your business, including the farm production activities.



WHY IS IT IMPORTANT?

Record keeping preserves information. It provides a written proof of what has happened, what is happening and what is anticipated to happen. It provides proof that you harvested this much corn and sold it at this price; or you borrowed money for capital at one give time and since then made monthly instalment payments, and so on.

Also, we keep written records because our memory can fail and we may forget important activities, money coming in and money coming out.
Individuals and group or organization, need this kind of recording to make sure everything is taken when you do counting and accounting, and determining how much income your farm business is giving you.

Record keeping will enhance your business-mindedness as you will keep and gain lessons from recorded experiences.

With good record keeping:

1) You will know how much money you have received, how much money you have spent and how you have spent it.

2) You will know how much are the amount of inputs and materials used to grow the enterprise

3) You will know the price of produce sold and cost of inputs.

4) You can calculate whether you are making a profit or a loss.

5) You will be able to make better decisions on what to buy and sell.

6) You can keep records of buying and selling on credit, so that people cannot cheat you.

7) You will know how much volume you produce.

KEY TOPIC	TYPES OF FARM BUSINESS RECORDS		
DURATION	25 minutes	TRAINING RESOURCES	Money out and money in records Manila Paper, Adhesive tape and pentel pen

GROUP ACTIVITY:

Ask the participants to group into 4 for the group activity of 15 minutes. Assign two groups to fill out the form Money Out. Other two groups will fill out the Money In form. (Refer to Annex 1 of this module). All activities that will be included should be related to copra production.

Ask them to post the results of the workshop.

Ask the participants.

WHERE SHOULD HOME CONSUMPTION BE RECORDED?

SAY "Our family consumed 100 coconuts."

Answer: Money in form

WHAT ABOUT THE LABOR COST INCURRED?

Answer: Money out form

KEY TOPIC	CLOSING THE SESSION		
DURATION	5 minutes	TRAINING RESOURCES	

Conclude this session by summarizing and repeating key points.

You have learned that record keeping is essential for farm business operation. The two types of records - **money out** and **money in** will be your tool to keep track your expenses and income. Ask for Feedback on the process and content.

Future link: After learning about these records, in the next session, we will learn how to determine the profitability of your farm.

REFERENCES / CITATIONS

DA-ATI/DAR/FAO FBS Manual: a handbook for Filipino Farmers. 2015.
Training material from GTZ/CLP Regional expert meeting
Data from FMBS-project Nigeria. Market opportunity study Nigeria
Farmer Business School Training Notebook and Workbook Cocoa Production Systems Ghana. July 2015.

ANNEX 1: RECORDS KEEPING SAMPLE FORMS WITH ENTRIES

CASH INFLOW RECORD (MONEY IN)

DATE	SALES/ OUTPUT	QUANTITY (KG)	UNIT PRICE (PHP/KG)	TOTAL INCOME (GROSS)	COMMENTS
Cash Inflow					
12/04/2010	Sold corn	500	23	11500	Sold at farm gate
15/04/2010	Sold corn	400	22	8800	Sold at town market
20/04/2010	Sold corn	200	23	4600	Sold at town market
25/04/2010	Sold corn	400	21	8400	Sold at farm gate
In kind Return					
5/03/10	corn	50 kg	20	1000	Family consumption
TOTAL		**1500**		**34300**	

CASH OUTFLOW RECORD (MONEY OUT)

DATE	PARTICULARS	QUANTITY	UNIT PRICE	TOTAL EXPENSES (PHP)	COMMENTS
Cash Outflow					
25/01/10	Purchased seed	1 bag	2,500	2500	Bought from Pedro
1/2/10	Purchased Fertilizer	4 bags	1,200	4,800	Bought from Dalisay
18/2/10	Purchased Fertilizer	2bag	1,200	2,400	Bought from Pedro
25/2/10	Labor plowing	2 MAD	350	700	
5/03/10	labor	3MD	250	750	local
5/03/10	Pesticides	1 li	1000	1000	Bought from Leticia
5/10/10	Transportation	1	500	500	Hired Go Trucking
5/10/10	Empty sacks	40	10	400	Mabuhay Packing
6/10/10	Harvesting	10 MD	250	2500	Hired from barangay
In kind Investment (Family Labor)					
25/2/10	labor	1 MD	250	250	Did some of the work myself
TOTAL				**13,300**	

MODULE

3

DIAGNOSIS & FINDING OPPORTUNITIES

In this module, the challenges limiting the farm's performance will be assessed and the opportunities will be analysed in order to improve the farm performance thus, increasing its profitability.

SESSION 3: UNDERSTANDING FARM PROFITABILITY

OBJECTIVES

ACQUIRED KNOWLEDGE

Participants would be able to:

1. Assess the profitability of their enterprises
2. Practice the control and recording of money inflows and outflows as basis for business decisions and management of money

ACQUIRED SKILLS

The participants can

1. Compute profit or loss of a farm enterprise
2. Differentiate variable and fixed cost
3. Compute the minimum price and yield of the enterprise

ACQUIRED ATTITUDES

Participants are cautious (1) that fixed cost should also be considered in computing profit and (2) if how much should be his/her minimum price and yield to make a profit.

METHODS

Experiential and active adult learning methods: group computation, discussions and analysis lecture

TRAINING SUPPLIES, TOOLS AND MATERIALS

Manila paper, marking pens, whiteboard and pen (or blackboard and chalk), adhesive tape, metacards, push pins, calculator, templates and prepared exercises, laptop computer and projector

KEY TOPICS

A. Understanding Enterprise Profitability

B. Computations:

1. Variable costs and fixed costs
2. Income
3. Break-even price
4. Break-even yield
5. Depreciation
6. Profit and loss

DURATION

1 hour and 30 minutes

KEY TOPIC	INTRODUCTION		
DURATION	10 minutes	TRAINING RESOURCES	

ACTIVITIES

- Greet and welcome the participants
- **GET ATTENTION**
  Ask the participants "Are we getting enough income from our farm?
- **LINK**
  After understanding how to record and why records are important, we now discuss its usefulness to better understand the performance of your farm or if you are getting enough income from your farm.
- **EXPLAIN OUTCOMES**
  By participating in this training, you will be able to understand that profitability is a function of costs and returns.
- **EXPLAIN STRUCTURE**
  In this session, we will discuss your farm experiences and relate them to the business aspects of farming.

KEY TOPIC	UNDERSTANDING FARM PROFITABILITY		
DURATION	1 hr and 20 mins	TRAINING RESOURCES	Manila Paper, adhesive tape and pentel pen

QUICK BRAINSTORMING

1. Begin by posing the questions below and ask short, direct and quick responses from participants.

HOW IS YOUR FARM/BUSINESS PERFORMANCE?
HOW DO YOU KNOW IF YOU ARE GAINING PROFIT?

2. Write quickly their answers on the board and make a short assessment of their responses.

3. Deepen the ideas.

4. Let us recall your farm records. Remember, you have recorded the activities necessary for your farm to have an increased yield. For example, fertilization, kukum dryer etc. These are examples of costs.

5. Remember that these records also included cash and non-cash incomes and investments.

6. Now, let's look at this enterprise budget for copra production (See Annex 1 of this module). Notice that this budget contains the items from the two records you kept.

7.First look at the income: You have here your total income which was derived from the product quantity of the product (sold, eaten, used or given away) by the price of the produce on the market. Notice that:

Quantity is specified in terms of the unit of measure, which in this is in terms of kg.
Price is specified in terms of a unit of measure, i.e. PhP/kg. Hence it is referred to as the unit price.

If the price of copra is PhP 37.00/kg and you were able to produce 1,500 kg then, how much is your income?

INCOME = PHP 55,500

8. Let's look at the costs:

WHAT ARE THE COSTS IN ORDER TO PRODUCE COPRA?

One type of cost is variable cost.
These costs are the:

LABOR COSTS	FERTILIZER	SACKS

Variable costs:

- **are cost of actual production**
- **vary as output changes**
- **variable costs occur only if something is produced. They do not occur if nothing is produced.**

After knowing the income and cost, we can now compute for the profit of this enterprise. In this table, you see that the total income is PhP 55,500 while the total cost is 12,740 which gives us a profit of PhP47,260.

COMPUTING FOR BREAK EVEN PRICE

Using our table earlier, we can compute for the break even price.

DO YOU KNOW WHAT BREAK EVEN PRICE IS?

Break-even price is the minimum acceptable price that will, if nothing else, cover the cost of production. At this price the income received will be equal to the cost of production, and the profits will be zero.

Using the following formula, we can obtain the break-even price:

$$\text{BREAK-EVEN PRICE} = \frac{\text{TOTAL VARIABLE COST PER HA}}{\text{YIELD PER HA}}$$

CAN YOU NOW COMPUTE FOR THE BREAK-EVEN PRICE OF THE SAMPLE COPRA PRODUCTION ENTERPRISE WE ANALYSED EARLIER?

$$\text{BREAK-EVEN PRICE} = \frac{\text{PHP 12,740 PER HA}}{\text{1,500 KG PER HA}}$$

In this example, the variable costs equal PhP 12,740 per hectare. The yield per hectare is 1500 kg. Therefore the break-even price is PhP 8.16 per kg. If the farmer sells his produce for less than PhP 8.16 per kg, he will make a loss. If she/he sells for more than PhP 8.16 per kg, he will make a profit. Since the farmer is selling his/her produce at 37 per kg, he is making a profit of PhP 28.84/kg.

COMPUTING FOR BREAK-EVEN YIELD

1. Inform the participants that the next concept to be learnt is the break-even yield. **The break-even yield is the minimum level of production that you can produce to cover the costs of production. It is calculated by dividing the Total Variable Costs/ha with the per unit price of the produce.**

2. Write break-even yield formula on the board:

$$\text{BREAK-EVEN YIELD} = \frac{\text{TOTAL VARIABLE COST PER UNIT}}{\text{PRICE OF PRODUCE PER UNIT}}$$

3. Using the information from the example we have used, calculate the following on the:

$$\text{BREAK-EVEN PRICE} = \frac{\text{PHP 12,740 PER HA}}{\text{PHP 37 KG}}$$

The break-even yield is 344 kg/ha. In this example the farmer is producing well above the breakeven yield, i.e. at 1,500 kg/ha. If the farmer can further improve production efficiency, she/he can make a bigger profit.

COMPUTING FIXED COSTS

1. In producing copra and other agricultural commodities, we often incur cost that are referred to as **fixed costs**. These are:

- **Costs that do not vary with changes in production output of a specific product.**
- **They remain the same regardless of the output.**

2. Ask participants to list examples of fixed costs write them on the board. Lead the discussion to include at least the following fixed costs:

- The cost of purchasing a tractor or a piece of equipment which is used on the whole farm
- The cost of a head of livestock for draft power
- The cost of a packing shed
- The cost of farm infrastructure (e.g. kukum dryer, tapahan)
- The cost of permanent labor and management

3. Ask the participants if any of them owns a kukum dryer, tapahan, tractor or a plow or some other implement. Wait for their answer. Then, ask: does such piece of equipment last forever; or does it ever wear out?

DOES A PIECE OF EQUIPMENT LAST FOREVER; OR DOES IT EVER WEAR OUT?

SAY "The equipment/infrastructure you own have money value. Its highest value is usually when it is new. Its lowest value is when it is old. And it has no value when it is no longer functional."

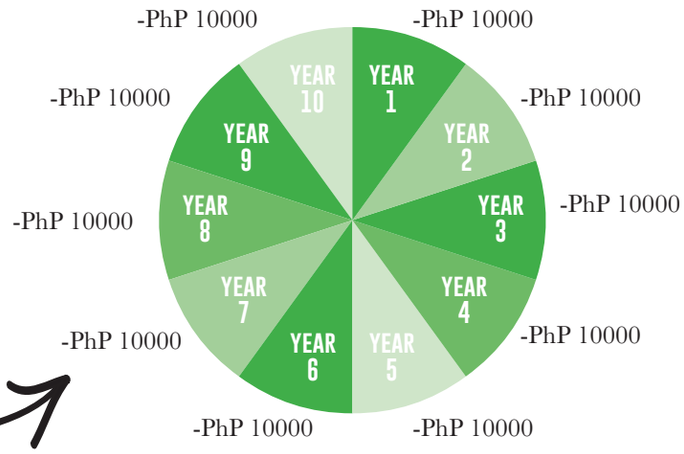
SAY "We do not use the highest value to compute the cost in your enterprise budget. Instead, we use the depreciated cost per cycle of the enterprise."

6. **Depreciation refers to the diminishing value of an asset** like tapahan, due to usage or wear and tear. Each year the value of piece of equipment decreases; or each year a little bit of the value of the equipment is used up. Although it does not cost you cash, this used up value is a cost to your farm.

7. Mention to the participants that to calculate depreciation you need to know two things. First, **you need to know the price of the equipment when you first bought it**. Second, **you need to know how long the equipment will last**.

SIMPLE DEPRECIATION DIAGRAM

8. Draw/Show the diagram on the right on the board:



9. Explain the following with the help of the board. Let us say that we have a new kukum dryer with a price of PhP 100,000 and it will be functional for 10 years.

In the above diagram we see 10 slices in the pie. Each slice represents one year of life of the dryer. Depreciation says that each year the value of the plow reduces by 10% of the original value. In this case it is PhP 10,000 per year. In this way, PhP 10,000 is subtracted from the value of the dryer each year for 10 years.

10. Explain that **depreciation is the annual cost or value of a fixed asset that will be used in calculation of the whole farm profit**.

11. Ask the participants:

WHAT IS THE PROFIT OF YOUR FARM BUSINESS IF YOU INCLUDE YOUR FIXED COST IN THE COMPUTATION?

Profit is the surplus remaining after total costs are deducted from total incomes or returns.

TOTAL INCOME – TOTAL VARIABLE COST – TOTAL FIXED COST (ANNUAL) = PROFIT

Earlier, we have a profit of PhP 42,760 but after considering the fixed cost which is PhP10,000 per year, we now have a total profit of 32,760.

PHP 55,500 - PHP 12,740 - PHP 10,000 = PHP 32,760

KEY TOPIC	CLOSING THE SESSION		
DURATION	10 minutes	TRAINING RESOURCES	

Summarize the session.

SAY

"After the series of exercises, you now better understand that profitability is a function of cost-fixed and variable and income. You have also learned your minimum required price and yield for you to earn profit in a business."

Ask for any other questions. Ask for the feedback on the session and its contents.

Future link: After understanding if your farm business is profitable, we now need to ensure that your produce can be sold. In our next session, we will be assessing market opportunities of your produce.

REFERENCES / CITATIONS

DA-ATI/DAR/FAO FBS Manual: a handbook for Filipino Farmers. 2015.
Training material from GTZ/CLP Regional expert meeting
Data from FMBS-project Nigeria-Market opportunity study Nigeria
Farmer Business School Training Notebook and Workbook Cocoa Production Systems Ghana. July 2015.

ANNEX 1: SAMPLE COCONUT ENTERPRISE BUDGET

Enterprise: Coconut (Copra)				
For the period: January to December 2018				
Area under cultivation: One (1) Hectare				
Item No	**Item**	**Quantity**	**Unit Price (Php)**	**Total**
I	A. Income			
	Copra - 5 nuts per tree x 12 months @ 4 nuts:1kg copra	1,500 kg	37/kg	55,500
TOTAL INCOME				55,500
II	B. Variable Cost x 4			
	Labor Cost			
	Slashing	2man-days	150/day	300
	Climbing (harvest)	100 trees	10/tree	1,200
	Gathering	1 man animal days	P300	300
	Dehusking	1,500 nuts	P0.20/pc	300
	Splitting	1,500 nuts	0.15/pc	225
	Drying	2 man-days	P150.00/day	300
	Scooping	1,500 nuts	0.10/pc	150
	Transportation (trucking) to trader	8 sacks	20/sack	160
	Harvesting labor cost			2,935
	Total Labor Cost			11,740
	Material Cost			
	Fertilizer (Salt)	2 Bags	340/bag	680
	Sacks	8x4	P10/sack	320
	Total Material Cost			1,000
TOTAL VARIABLE COST				**12,740**
Profit = Total Income (Gross) – Total Variable Cost Profit = Money in – Money out				**+42,760**

MODULE

3

DIAGNOSIS & FINDING OPPORTUNITIES

In this module, the challenges limiting the farm's performance will be assessed and the opportunities will be analysed in order to improve the farm performance thus, increasing its profitability.

SESSION 4: ASSESSING MARKET OPPORTUNITIES

OBJECTIVES

ACQUIRED KNOWLEDGE

The participants will be able to:

1. Define marketing and market;
2. Enumerate the information to be gathered from different market stakeholders and market opportunities.

ACQUIRED SKILLS

The participants are able to conduct a simulated simple market survey and assess farm business opportunities

ACQUIRED ATTITUDES

The participants appreciate information about possible markets and farm business opportunities and take them into account when taking decisions on farm level.

METHODS

Plenary discussion, simulation, lecture

TRAINING SUPPLIES, TOOLS AND MATERIALS

• Market Survey Questionnaire (see also Farmers' Book)
• Manila paper, marking pens, whiteboard and pen(or blackboard and chalk), adhesive tape, push pins, prepared simple survey instrument,
• Laptop computer and projector (optional)

KEY TOPICS

A. What is marketing? What is market?
B. Assessing and finding market opportunities for the farm business
C. Conducting simple market survey for farm enterprise

DURATION

1 hour and 30 minutes

KEY TOPIC	INTRODUCTION		
DURATION	10 minutes	TRAINING RESOURCES	

ACTIVITIES

- Greet and motivate the participants (Introduce yourself)
- **GET ATTENTION**
  Do you want to ensure that your produce will be bought?
- **LINK**
  Refer to this Module

  SAY

  "In the first three sessions of Module 3 Diagnosis and Finding Opportunities we have focused on our farms. Now we turn to the world outside of our farms. After understanding that profitability is a result of costs and income, now we need to ensure that we have income. To obtain income, we must have a market for our produce."
- **EXPLAIN OUTCOMES**
  At the end of this lesson you will be able to identify and assess market opportunities
- **EXPLAIN STRUCTURE**
  1. Identify different kind of markets
  2. Conduct a simple survey

KEY TOPIC	WHAT IS MARKETING? WHAT IS MARKET?		
DURATION	10 minutes	TRAINING RESOURCES	Manila paper and marking pen

PLENARY DISCUSSION: Ask the participants:

WHAT IS MARKETING? WHAT IS MARKET?

Show the brief and widely adopted definition of the terminologies:
- **Marketing** is the process of exchange between the producer (example: farmer) who sells a product, and the consumer who buys the product.
- **Market** is the place where exchange of goods and services takes place. It is made up of sellers, buyers, products and prices.

KEY TOPIC	ASSESSING MARKET FOR THE FARM BUSINESS		
DURATION	1 hour	TRAINING RESOURCES	Manila paper and marking pen

1. Show and Explain to all the groups the Forms and the Market Survey questionnaire to be used in the market survey [REFER TO ANNEX 1]. See also Farmers' Book.
Explain also what is meant by:

CUSTOMER/END MARKET	AGENT/WHOLESALER/ RETAILER	FARMER/COMPETITOR (INDIVIDUAL OR GROUPS)	TRANSPORT SERVICE PROVIDER

2. Select 4 pairs of participants to play as group of farmer-producers exploring markets for ginger (as their common product).

3. Divide the remaining participants into 4 groups. They are the 4 groups of respondents in the market survey, distributed as follows:

GROUP 1	GROUP 2	GROUP 3	GROUP 4
CUSTOMER/END MARKET	AGENT/WHOLESALER/ RETAILER	FARMER/COMPETITOR (INDIVIDUAL OR GROUPS)	TRANSPORT SERVICE PROVIDER

4. Distribute the 4 pairs of participants among the 4 groups of respondents.
5. Provide each pair with the appropriate form/survey Q on Manila paper.
6. Let the market survey begin. Write data legibly on the Manila paper instrument.
7. Let the pairs post their outputs in front
8. Process the activity. Ask the participants what lessons or insights they have gained from the exercise; what relevance

LECTURE-PRESENTATION TO DEEPEN INSIGHTS

Elaborate on the importance of knowing:

- The different market outlets available for the product
- The quantities that these market outlets want
- The best time to use these markets

Ask the participants:

WHAT INFORMATION IS REQUIRED FOR INFORMED DECISIONS?

Then add when necessary or restate:
- Know what market outlets are available for your products.
- Know about these markets, with regard to time, access, terms and conditions and other facilities.

In this way they will be able to make informed decisions about which market to use.

KEY TOPIC	CLOSING THE SESSION		
DURATION	10 minutes	TRAINING RESOURCES	

1. Review the results of this session:

SAY

"We have learned about markets and which opportunities they provide as well as about the different actors."

2. Invite feedback from the participants on the content as well as on the process.
3. After knowing market opportunities, we now understand the options for you to consider in order to optimize your farm.

REFERENCES / CITATIONS

FBS-GIZ Training Notebook and Workbook July 2015
Farmer Business School Training Notebook and Workbook Cocoa Production Systems Ghana. July 2015.

ANNEX 1: KNOWING THE MARKETS AND THEIR REQUIREMENTS

MARKET SURVEY QUESTIONNAIRE

This market survey aims to assess the local market opportunities through interview with prospective customers, wholesalers, retailers, farmer and transport provider.

CUSTOMER/END MARKET	
What vegetables do you often buy (weekly)? Specify. At what price. What is the mode of payment? (specify unit)	
Why do you buy these vegetables?	
Who are your suppliers for these vegetables?	
In what quantities per week do you buy these vegetables?	
How often are these vegetables available in the market? (daily or seasonal)	
How often do you go to the market to buy these vegetables in a week?	
What times of the year (month/s) the prices of these vegetables are at a higher price?	
What can you say about the quality of the vegetables you often buy? Please describe.	
What are the problems you have encountered with these vegetables you often buy the most?	

AGENT/WHOLESALER/RETAILER	
What are the common vegetables that you are buying? At what price/unit (specify)?	
Why do you buy these vegetables?	
In what quantities per week do you buy these vegetables?	
Who are your suppliers (individual farmer, coop, farmers' group, agent/assembler, and wholesaler)?	
How often are these vegetables available in the market? (frequency during its season)	
How is the demand for these vegetables? (Surplus or deficit)	
What time of the year (month/s) are the prices of these vegetables at their highest price?	
What can you say about the quality of the vegetables you often buy? Please describe.	
Where do you sell the vegetables that you are buying? Name of buyer and classification of your buyer (wholesale buyer, retailer, end-user, others).	
Do you still have market demand for other vegetables? If yes, what are the other vegetables that have market demand?	

FARMER (INDIVIDUAL OR IN GROUPS)/COMPETITOR	
What vegetables you usually produce?	
Why do you usually produce these vegetables?	
How much volume do you usually produce of these vegetables?	
Where do you sell? (Specify your buyer)?	
How much is the price per kilo of each kind of vegetables per type of buyer?	
What is the method of selling (Picked-up or delivered)?	
If picked-up, price per unit (i.e. per kilo, per bag, etc.)	
If delivered? How much is the price?	
How much is the transport cost?	
Is transport available on time?	
Who pays for the hauling costs?	
What type of transport is usually used?	
What are the problems you encountered as producer?	

TRANSPORT SERVICE PROVIDER	
What are the transportations most commonly used by farmers for their produce?	
As transport service provider, what are the different vegetables that you usually transport?	
When is the busiest period (month duration) that you are "ferrying" vegetables?	
From where are you getting the vegetables? Name of barangays.	
How much is the cost of transport per kilo/per bag or of what unit of measure used?	
Does the cost of transport include hauling service (kargador)? Yes or No	
If no, who shoulders the hauling costs?	
Is your transport service busy for the whole year hauling vegetables? Yes or No	
If no, what other commodities you are hauling?	
What problems have you encountered in your transport business?	

MODULE

4

PLANNING THE FARM BUSINESS

In this module, options in optimizing profit of the farm will be discussed. In addition, plans and steps to follow to optimize profit of the farm will be explored.

SESSION 1: OPTIMIZING COCONUT FARM PROFITABILITY

ACQUIRED KNOWLEDGE

Participants understand:

- How to better manage the coconut farm.
- Options to optimize profitability of coconut farm.

ACQUIRED SKILLS

Participants can make sound and viable decisions to increase income.

ACQUIRED ATTITUDES

Participants become more decisive in optimizing their farm and increasing farm income.

METHODS

Plenary discussion, group activity

TRAINING SUPPLIES, TOOLS AND MATERIALS

- Tarpaulin, Manila paper, adhesive tape, and pentel pen
- White board
- Alternative: powerpoint and computer

KEY TOPICS

1. Better Management of Coconut Farm
2. Options to Optimize the Coconut Farm Profitability

DURATION

2 hours

KEY TOPIC	INTRODUCTION		
DURATION	5 minutes	TRAINING RESOURCES	

ACTIVITIES

- Welcome participants. Introduce the module or session and its objectives.
- **GET ATTENTION**
  Who among you would like to increase income from your coconut farm? Say that you are bringing good news to coconut farmers. Since most of you answered YES, then the following training sessions will be of high interest of you.
- **LINK**
  After understanding market opportunities in your locality, we now explore ways/options to increase your income from coconut farm.
- **EXPLAIN OUTCOMES**
  By participating in this session, you will be able to understand the necessary steps to undertake to increase your income so you could apply in your farm.
- **EXPLAIN STRUCTURE**
  In this training, we will learn how to increase income by introducing:
  - Options to better manage the coconut farm
  - Options to diversify the coconut farm

KEY TOPIC	BETTER MANAGEMENT OF COCONUT FARM		
DURATION	10 minutes	TRAINING RESOURCES	Manila paper, adhesive tape, and pentel pen, tarpaulins

PLENARY DISCUSSION

1. Recall the exercise in assessing your farms. Remember that we have asked you to draw your existing farm. As you may recall:

> *Note to trainers: Please cite the summary of weaknesses cited during the session on farm assessment under Module 3. Diagnosis and Finding Opportunities.*

Examples as follows:
- Low yield of coconut farms.
- Limited market of copra.
- Profit not enough for the daily needs of the family.
- Etc.

2. In short, you all wanted to improve the productivity of your farm and optimize profit from it. Now, ask participants if they can think of strategies to address the weaknesses cited earlier (e.g. how to improve productivity or how to increase profit)

To increase profit, farmers may consider:
- Getting a higher price for the commodity
- Increasing the yield while maintaining costs
- Reducing costs through alternative inputs, cheaper technologies, or labor saving mechanisms
- Adding additional crops for more income

KEY TOPIC	BETTER MANAGEMENT OF COCONUT FARM		
DURATION	40 minutes	TRAINING RESOURCES	Manila Paper, adhesive tape and tarpaulin

GROUP ACTIVITY

1. Ask the participants to group into 5. Ask the participants to discuss for 15 minutes the type of small changes they could introduce in their respective enterprises that can make them more profit.

Ask the participants:

- IS THIS CHANGE LIKELY TO BRING IN MORE MONEY TO THE ENTERPRISE?
- IF IT BRINGS IN MORE MONEY, WHAT ARE THE REASONS?
- WHAT IS LIKELY TO CHANGE? WILL IT RESULT IN AN INCREASE IN YIELD?
- WILL IT LEAD TO MORE INCOME?
- OR WILL THE CHANGE REDUCE THE AMOUNT OF LABOR USED?
- WILL THIS RESULT IN LOWER LABOR COSTS?
- WILL THIS CHANGE ULTIMATELY PRODUCE BENEFITS AND MORE INCOME?

2. Ask the participants to consider the **effect of small changes** on the profitability of their group enterprise.
3. Ask each group to present in 5 minutes.

DURATION	30 minutes	TRAINING RESOURCES	Tarpaulin

PLENARY DISCUSSION: Ask the participants,

ASK THE PARTICIPANTS. HOW MUCH MORE YIELD CAN A COCONUT TREE PRODUCE IF PROPERLY FERTILIZED COMPARED TO NO FERTILIZATION?

Possible Answer:
10%, 20%, 50%, 100%

	Unit	Coconut with no Fertilizer			Coconut with Agricultural Grade Salt (AGS)			Coconut with AGS + Coir-Based Organic Fertilizer(CBOF)			Coconut with Ammonium Sulfate(AS) and Potassium Chloride (KCl)			Multi-nutrient Fertilizer (MNF)			Coconut with MNF + CBOF		
After application of 3 year/s		1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
Application Rate	kg/ha				200			AGS-200 and CBOF-800			AS-150 and KCL -200			300			MNF-300 and CBOF-400		
Area	Ha	ONE																	
Production	average nut yield	4,500	4,500	4,500	5,625	6,800	9,000	5,625	6,800	9,000	6,800	9,000	9,000	6,800	9,000	9,000	6,800	9,000	9,000
Money-Out (Cash outflow)	Pesos/ha				3850	3850	3850	10850	10850	10850	7570	7570	7570	12170	12170	12170	12070	12070	12070
Money-in (Cash inflow)	Pesos/ha	35,000	35,000	35,000	43,750	52,500	70,000	43,750	52,500	70,000	52,500	70,000	70,000	52,500	70,000	70,000	52,500	70,000	70,000
Profit or Loss?	Pesos/ha	35,000	35,000	35,000	39,900	48,650	66,150	32,900	41,650	59,150	44,930	62,430	62,430	40,330	57,830	57,830	40,430	57,930	57,930

Notes:

1. Copra price(PhP)	35
2. Cost of Fertilizer (PhP/bag)	
AGS	320
AGS + CBOF	650
AS + KCl	1,360
MNF	1,600
MNF + CBOF	1,350

Now, how do you apply fertilizer in your coconut farm? Look at these photos. Which of the following is the appropriate way of applying fertilizer?

Source: Coconut Implementation Guide 2015

Source: PCA presentation

It is important to wear protective equipment in fertilizing for health safety of the farmer.

In applying fertilizer in flat areas, you have to:

1. Ring weed 1-1.5m. →
2. Your fertilizer should be 3-5 inches below the surface of the soil. →
3. Cover immediately the fertilizer with soil.

In applying fertilizers in hilly areas, you have to:

1. Dig 8-10 equidistant hole (5 cm deep) within 1-1.5 m from base of palm. →
2. Put fertilizers into holes. →
3. Cover with soil.

Ask the participants:

WHAT OTHER ACTIVITIES DO YOU THINK WOULD SUSTAIN THE FERTILITY OF YOUR SOIL?

Possible Answers:
- Planting nitrogen fixing trees
- Using vermicomposting to increase biological activity of soil
- Use processed organic fertilizer to improve plant nutrition, increase soil organic matter and soil biological activity
- Use farm wastes as mulch to conserve soil moisture, enrich soil OM & add nutrients
- Use cocopeat especially in light soils to improve water holding capacity & add nutrients

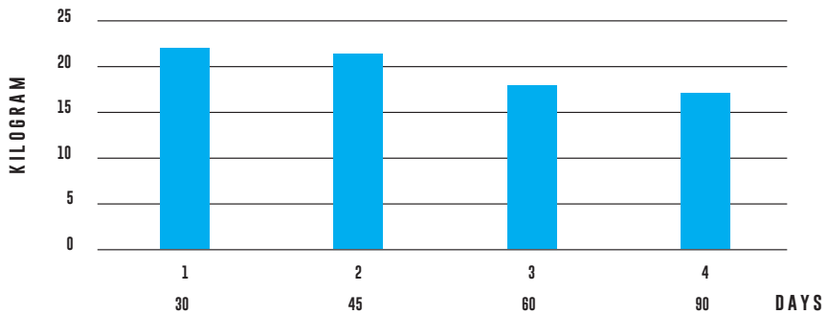
Ask the participants:

WHAT ELSE ARE THE OTHER CONSIDERATIONS TO INCREASE INCOME FROM COCONUT?

DID YOU KNOW THAT TIMELINES IN HARVESTING COCONUT ALSO MATTERS TO OPTIMIZE PROFIT? EVERY HOW MANY DAYS DO YOU THINK YOU SHOULD HARVEST TO MAXIMIZE YOUR PROFIT?

Possible Answers:
30,45 and 60 days

ANNUAL COPRA YIELD (KG/TREE) AS AFFECTED BY FREQUENCY OF HARVEST



WHAT IS THE BEST IN TERMS OF YIELD?

Answer: 30 days

WHAT IS THE BEST IN TERMS OF PROFIT?

Answer: 45 days

DID YOU KNOW THAT NUTS HARVESTED AT 10TH MONTH OR COLOR-BREAK STAGE MUST BE STORED OR SEASONED BEFORE PROCESSING INTO COPRA? WHY IS THAT SO? WHAT ARE THE BENEFITS?

Possible Answers:
- Moisture content of copra decreases
- Oil content increase
- Increase thickness of layer

WHAT METHODS OF DRYING DO YOU KNOW?

Possible Answer:
- Solar Drying
- Kiln Drying

HOW MANY DAYS DO YOU NEED TO DRY YOUR COPRA IF YOU ARE USING SOLAR AND KILN?

Possible Answers:
- Solar Drying – 5-7 days
- Kiln Drying – 24 hrs

NOW, ASIDE FROM YOUR TAPAHAN DO YOU KNOW OTHER METHODS TO HAVE A COPRA FREE OF SOOT AND HIGH QUALITY WHITE COPRA?

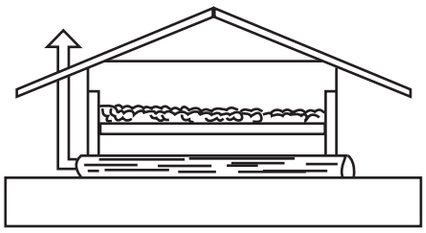
Possible Answer:
- Hot air or indirect method (use of kukum dryer)

WHAT ARE THE TWO MAJOR STRUCTURES OF KILNS?

- Drying Chamber
- Combustion Chamber

DO YOU KNOW HOW TO PROPERLY DRY YOUR COCONUT? HOW DO YOU DO IT IF YOU USE KILN DRYING?

Possible Answers:
• The dehusked splitted coconut should be arranged to facilitate circulation of heated air and avoid burnt copra.
• First layer laid with concave side facing upward with the shell directly exposed to combustion chamber.
• Next layers laid with concave side facing down.



Hot-air/indirect drying kiln-
"KUKUM"

NOW, HOW COULD YOU INCREASE YOUR INCOME IF YOU HAVE A LOT OF SENILE TREES?

Possible Answer:
Replant coconut trees

WHAT SHOULD YOU CONSIDER FIRST IN REPLANTING COCONUT TREES?

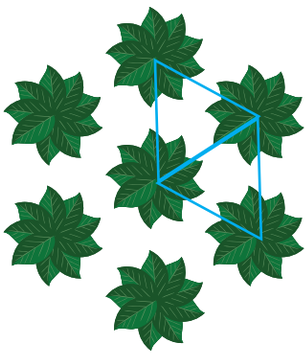
Possible Answer:
The selection of mother palm which should have:
- a stout trunk
- leaf scars closely spaced
- seed nuts of uniform sizes
- thick meat and heavy husked nut.

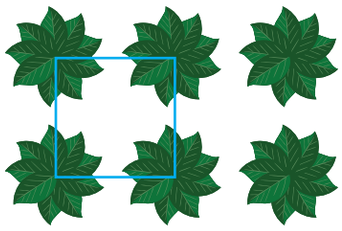
WHAT ARE OTHER CONSIDERATIONS AS YOU REPLANT?

Possible Answer:
• System of Planting
• Planting Distance

SAY "We have different kinds of system:"

TRIANGULAR	SQUARE
• Palms are set at fixed equal distances at the corners of an equilateral triangle • Accommodates about 15% more palms compared to the square method unit per area • Provides the maximum use of sunlight by the palms for its growth and crop yield	• More common than the triangular method • Does not give the best sunlight utilization and soil coverage because of the big light patches at the center of each square





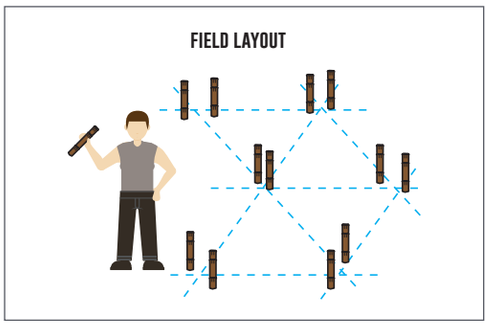
SAY

"Planting Distance is very important to consider especially if you want to maximize the use of your farm."

Planting Density **In relation to distance and method of planting**		
Planting Distance	Square System	Triangular System
	No. of Palms/hectare	
8 x 8 m	156	180
8.5 x 8.5 m	138	160
9 x 9 m	123	143
10 x 10 m	100	115

Do you know what the steps in planting coconut trees?

1



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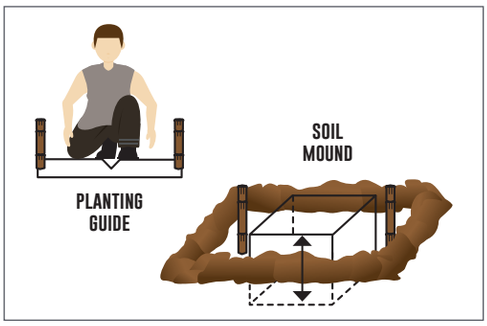

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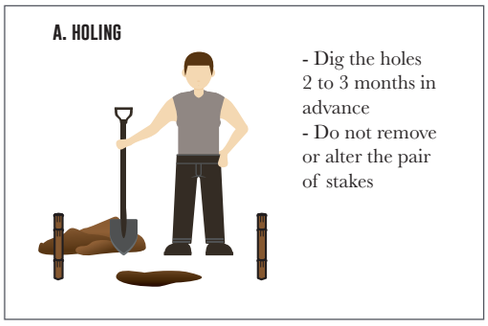

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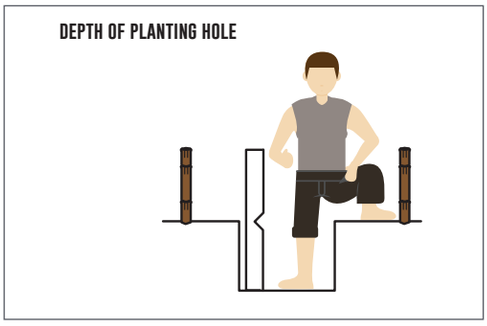

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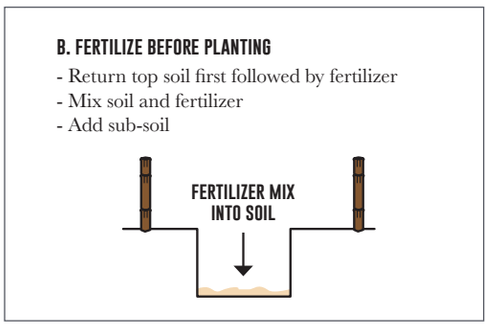

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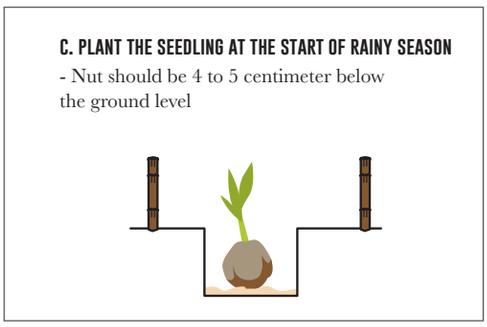
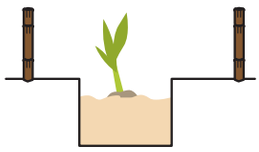


7

Firmly press soil around the base but never cover the seedling collar with soil or get into the leaf axils



NOW, WHAT SHOULD YOU DO TO TAKE OF THESE NEW PLANTING?

Possible Answers:
- Protect from stray animals - fence
- Check drainage - water should not stagnate in seedling holes continuously for long periods
- Remove weeds within about 1 m radius of palms or apply mulch using dry weeds, coco husks, farm wastes & other organic mulches
- Replace dead plants, unhealthy & stunted seedlings. Reserve 15 healthy seedlings/ha for replacement
- Apply fertilizers regularly

You can actually do a lot of changes to improve the productivity of your farm- through fertilization, harvesting, copra processing and replanting.

KEY TOPIC	OPTIONS TO OPTIMIZE THE COCONUT FARM PROFITABILITY		
DURATION	30 minutes	TRAINING RESOURCES	Tarpaulin Manila paper, adhesive tape, and pentel pen

PLENARY DISCUSSION

1. Ask the participants:

DO YOU WANT TO EARN MORE FROM YOUR COCONUT FARM?

Answer: Yes.

SAY "Then, the next session will again be of interest to you."

ASIDE FROM IMPROVING THE PRODUCTIVITY OF YOUR COCONUT FARM, WHAT ELSE CAN BE DONE TO OPTIMIZE PROFITABILITY OF YOUR FARM?

Possible Answer: Intercrop or plant other crops in your coconut farm.

WHAT ADVANTAGES DO YOU SEE IN INTERCROPPING?

Possible Answers:
- Pest problems and diseases are reduced
- Maximum use of soil and light
- Contribute to the biodiversity in general, interactions are enhanced, the system is relatively stable
- In case of unusual climate, some or most components will be able to survive erosion will be reduced
- The financial risk is reduced and food security enhanced
- Maximum economic benefit

WHAT COMMON INTERCROPS HAVE YOU OBSERVED IN COCONUT FARMS IN YOUR LOCALITY?

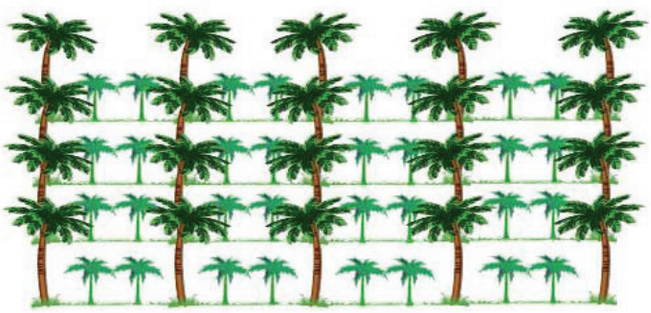
Write their answers as you hear them, on the board or on manila paper posted in front.

2. Make a guessing game:

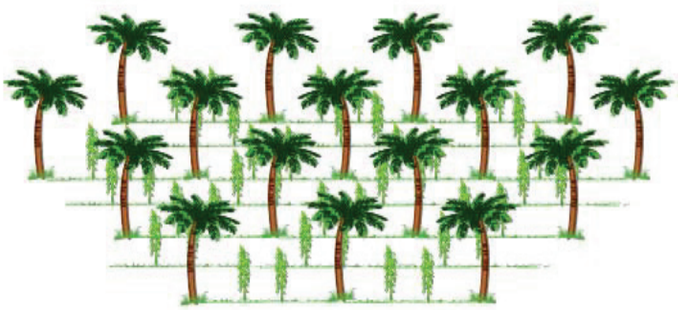
WHICH GIVES A HIGH OR THE HIGHEST RETURNS/INCOME?

3. Present recommended intercrops and the factual computed income from recommended intercrops in a given coconut based farming system.

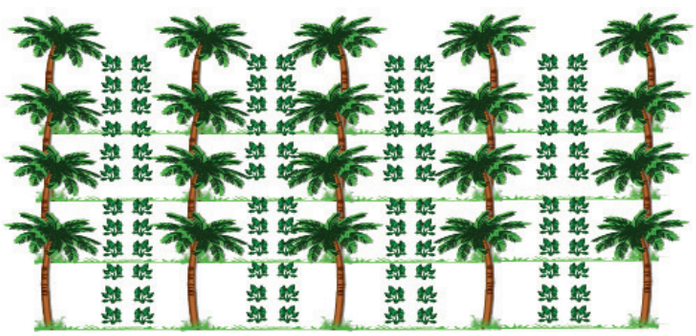
SAY "Did you know that you could earn this much when you intercrop these with your coconut trees?"
REFER TO ANNEX 1



A farm layout of a coconut-cacao cropping model under square planting system of coconut 8-10 m)



A farm layout of a coconut-coffee cropping model under triangular planting system of coconut spaced 8-9 m)



A farm layout of a coconut-vegetable cropping model under square planting system of coconut with spacing of 8-10 meters.

Aside from intercrop, livestock integration could also be an opportunity for additional income.

Kinds of Livestock	Cost of Production (PhP)	Net Income (PhP)
Cattle One Breeder Cattle (one production cycle 10 months)	30,650	39,350
Goat (one production cycle 8 months)	21,250	36,250

4. Emphasize the importance and relevance of knowing business calculations when deciding to diversify by intercropping.

5. Ask the participants,

WHAT DO YOU THINK ARE THE IMPORTANT ECOLOGICAL CONSIDERATIONS (DISTANCE, SOLAR ENERGY UTILIZATION, ETC) TO ACHIEVE THE OPTIMUM YIELD?

Possible Answers:
1. Coconut to serve as shade tree.
2. Enough distance of coconut roots to the other crops to be planted.
3. Etc.

6. Discuss that the following should be considered in deciding which intercrop to choose:

LAND UTILIZATION

2m from the base and vertically between 0.3-1.2m from the surface of soil

CLIMATE CHANGE

Using crops which are less prone to stresses e.g. water stress

SOLAR ENERGY UTILIZATION

Only 44% of total solar radiation is being used by coconut

UTILIZATION OF SOIL MOISTURE AND NUTRIENTS

In an average coconut farm, the roots of the palms utilize only 12.5 percent of the land area.

ASIDE FROM THE ECOLOGICAL CONSIDERATIONS, WHAT ELSE SHOULD WE CONSIDER WHEN DECIDING WHICH CROP TO INTERCROP?

Possible Answers:
- Right technology
- Available planting materials/seeds
- Right attitude and knowledge of farmers
- Favorable market for farm produce and logistics
- Available working capital
- Timely extension service
- Available laborers at given time

7. Acknowledge responses from participants. Recall that a business should have the following in addition to the ecological suitability:

INPUT	PRODUCTION UNIT	MARKET

These should all be considered as you decide on what crop to intercrop in your coconut farm.

KEY TOPIC	CLOSING THE SESSION		
DURATION	5 minutes	TRAINING RESOURCES	

1. Key message at the end of the module:

We now understand that you can make small changes and can diversify to increase your farm income.

2. Ask for Feedback.
3. **Future Link:**

SAY

"For our next session, we will be preparing your business plan, this will allow you to see best which steps to take to optimize your farm output."

Note: Remind the participants to bring again the session materials for the next meeting.

REFERENCES / CITATIONS

PCA presentations during the Training of Trainers on Coconut Farming as a Business. 2016
Magat, Severino et al. Coconut Cacao Cropping Model. April 2007
Magat, Severino et al. Coconut Coffee Cropping Model. June 2006
Coconut Vegetables Cropping Model. October 2005
Farmer Business School Training Notebook and Workbook Cocoa Production Systems Ghana. July 2015.

ANNEX 1

OPTIONS TO DIVERSIFY YOUR COCONUT FARM

Kinds of intercrops	Cost of production/ ha. (Money out including own labor)	Yield/ha (kg/ha)	Estimated farm gate price (PhP)	Profit (PhP)	ROI	Notes
OPV Corn	20,150	3,000	12	15,850	79%	2 croppings/ year
Hot Pepper	35,225	5,000	25	89,775	255%	
Ampalaya	57,300	5,000	27	77,700	136%	one production cycle (3 months)
Eggplant	42,150	6,500	16	61,850	147%	one production cycle (3 months)
Banana	50,725	12,000	8.25	48,275	95%	2 years after planting
Pineapple	79,325	4,950 fruits	25/fruit	44,425	56%	2 years after planting
Cacao	25,930	500	100	68,700	265%	Average of 5 years
Coffee	24,543	1,000	70	98,000	299%	Average of 5 years
Abaca	56,163	2,560	40	47,517		Average of 10 years

ANNEX 3

COCONUT- CACAO INTERCROPPING - 1 Hectare
COST- RETURN ANALYSIS

PARTICULARS	Y1	Y2	Y3	Y4	Y5
CACAO (500 trees per hectare)					
COST					
A. Materials	**15,700.00**	**3,700.00**	**7,150.00**	**7,550.00**	**7,950.00**
- Cacao seedlings (500 seedlings/ha @ PhP 30/seedling)	15,000.00				
- Organic Fertilizer (200 gms/tree or 2 bags ha @ PhP 350/bag)	700.00				
- Triple 14 (Y2 - 200 gms/tree or 2 bags/ha; Y3-5 - 400 gms/tree or 4 bags/ha @ PhP 1,400/bag)		2,800.00	5,600.00	5,600.00	5,600.00
- Pesticides		500.00	750.00	750.00	750.00
- Rattan baskets (PhP 20/basket)		400.00	800.00	1,200.00	1,600.00
B. Labor	**11,150.00**	**9,075.00**	**17,875.00**	**22,000.00**	**27,500.00**
- Clearing (10 MD @ PhP 275/MD)	2,750.00				
- Plowing (2 MAD @ PhP 450/MAD)	1,800.00				
- Laying out, staking and holing (5 MD @ PhP 275/MD)	1,375.00				
- Planting (10 MD @ PhP 275/MD)	2,750.00				
- Weeding, Mulching (5 MD @ PhP 275/MD)	1,375.00	1,375.00	1,375.00	-	-
- Fertilizer application (4 MD @ PhP 275/MD)	-	1,100.00	1,100.00	1,100.00	1,100.00
- Spraying pesticides (4 MD @ PhP 275/MD)	1,100.00	1,100.00	1,100.00	1,100.00	1,100.00
- General weeding (7 MD @ PhP 275/MD)			1,925.00	1,925.00	1,925.00
- Pruning (5 MD @ PhP 275/MD)			1,375.00	1,375.00	1,375.00
- Harvesting, breaking of pods, drying (Y2- 20 MD; Y3- 40 MD Y4- 60 MD; Y5- 80 MD @ PhP 275/MD)		5,500.00	11,000.00	16,500.00	22,000.00
TOTAL COST OF PRODUCTION	**26,850.00**	**12,775.00**	**25,025.00**	**29,550.00**	**35,450.00**
		26,850.00			
		39,625.00			
YIELD AND INCOME					
a. Yield (dried beans)	-	500.00	1,000.00	1,500.00	2,000.00
b. Gross Income (PhP 100/Kg.)	-	50,000.00	100,000.00	150,000.00	200,000.00
TOTAL GROSS INCOME	-	50,000.00	100,000.00	150,000.00	200,000.00
NET INCOME	(26,850.00)	**10,375.00**	**74,975.00**	**120,450.00**	**164,550.00**
ROI (%)		**26%**	**300%**	**408%**	**464%**

Note (for all cost and return analysis tables): If there are fixed costs, they should be included and annualized.

COCONUT- CACAO INTERCROPPING - 1 Hectare
COST- RETURN ANALYSIS

PARTICULARS	Y1	Y2	Y3	Y4	Y5

COCONUT- CACAO INTERCROPPING - 1 Hectare
COST- RETURN ANALYSIS

PARTICULARS	Y1	Y2	Y3	Y4	Y5
CACAO (500 trees per hectare)					
COST					
A. Materials	**15,700.00**	**3,700.00**	**7,150.00**	**7,550.00**	**7,950.00**
- Cacao seedlings (500 seedlings/ha @ PhP 30/seedling)	15,000.00				
- Organic Fertilizer (200 gms/tree or 2 bags ha @ PhP 350/bag)	700.00				
- Triple 14 (Y2 - 200 gms/tree or 2 bags/ha; Y3-5 - 400 gms/tree or 4 bags/ha @ PhP 1,400/bag)		2,800.00	5,600.00	5,600.00	5,600.00
- Pesticides		500.00	750.00	750.00	750.00
- Rattan baskets (PhP 20/basket)		400.00	800.00	1,200.00	1,600.00
B. Labor	**11,150.00**	**9,075.00**	**17,875.00**	**22,000.00**	**27,500.00**
- Clearing (10 MD @ PhP 275/MD)	2,750.00				
- Plowing (2 MAD @ PhP 450/MAD)	1,800.00				
- Laying out, staking and holing (5 MD @ PhP 275/MD)	1,375.00				
- Planting (10 MD @ PhP 275/MD)	2,750.00				
- Weeding, Mulching (5 MD @ PhP 275/MD)	1,375.00	1,375.00	1,375.00	-	-
- Fertilizer application (4 MD @ PhP 275/MD)	-	1,100.00	1,100.00	1,100.00	1,100.00
- Spraying pesticides (4 MD @ PhP 275/MD)	1,100.00	1,100.00	1,100.00	1,100.00	1,100.00
- General weeding (7 MD @ PhP 275/MD)			1,925.00	1,925.00	1,925.00
- Pruning (5 MD @ PhP 275/MD)			1,375.00	1,375.00	1,375.00
- Harvesting, breaking of pods, drying (Y2- 20 MD; Y3- 40 MD Y4- 60 MD; Y5- 80 MD @ PhP 275/MD)		5,500.00	11,000.00	16,500.00	22,000.00
TOTAL COST OF PRODUCTION	**26,850.00**	**12,775.00**	**25,025.00**	**29,550.00**	**35,450.00**
		26,850.00			
		39,625.00			
YIELD AND INCOME					
a. Yield (dried beans)	-	500.00	1,000.00	1,500.00	2,000.00
b. Gross Income (PhP 100/Kg.)	-	50,000.00	100,000.00	150,000.00	200,000.00
TOTAL GROSS INCOME	-	50,000.00	100,000.00	150,000.00	200,000.00
NET INCOME	(26,850.00)	**10,375.00**	**74,975.00**	**120,450.00**	**164,550.00**
ROI (%)		**26%**	**300%**	**408%**	**464%**
COCONUT					
COST					
A. Materials	7,850.00	7,850.00	7,850.00	7,850.00	7,850.00
- Ammonium Sulfate (AS) (1.5 Kg./Tree x 100 T = 150 Kg. @ 50 Kg./bag = 3 bags @ PhP 750/bag)	2,250.00	2,250.00	2,250.00	2,250.00	2,250.00
- Potassium Chloride (KCl) (2 Kg./Tree x 100 T = 200 Kg.	5,600.00	5,600.00	5,600.00	5,600.00	5,600.00

COCONUT- HOT PEPPER INTERCROPPING - 1 Hectare
COST- RETURN ANALYSIS

PARTICULARS	COCONUT (100 Trees/ Ha.)	HOT PEPPER	TOTAL
COST			
A. Materials	**7,850.00**	**8,300.00**	**16,150.00**
A.1 Hot Pepper	-	8,300.00	8,300.00
- Seeds (100 grams./ha. @ PhP 10/g.)		1,000.00	1,000.00
- Triple 14 fertilizer (2 bags @ 50 kg/bag x PhP 1400/bag)		2,800.00	2,800.00
- Urea (2 bag @ 50 kg/bag x PhP 750/bag)		1,500.00	1,500.00
- Chemicals		3,000.00	3,000.00
A.2 Coconut	7,850.00	-	7,850.00
- Ammonium Sulfate (AS) (1.5 Kg./Tree x 100 T = 150 Kg. @ 50 Kg./bag = 3 bags @ PhP 750/bag)	2,250.00		2,250.00
- Potassium Chloride (KCl) (2 Kg./Tree x 100 T = 200 Kg. @ 50 Kg./bag = 4 bags @ PhP 1400/bag)	5,600.00		5,600.00
B. Labor	**8,175.00**	**26,925.00**	**35,100.00**
B.1 Hot Pepper	-	26,925.00	26,925.00
- Plowing (2 MAD @ PhP 450/MAD)		900.00	900.00
- Harrowing (1 MAD) @ PhP 450/MAD)		450.00	450.00
- Bedding (2 MD @ PhP 275/MD)		550.00	550.00
- Seedling Production (7 MD @ PhP 275/MD)		1,925.00	1,925.00
- Transplanting (6 MD @ PhP 275/MD)		1,650.00	1,650.00
- Fertilizer application (basal) (2MD @ PhP 275/MD)		550.00	550.00
- Fertilizer application (sidedressing) (3 MD @ PhP 275/MD)		825.00	825.00
- Irrigation (32 MD @ PhP 275/MD)		8,800.00	8,800.00
- Weeding (15 MD @ PhP 275/MD)		4,125.00	4,125.00
- Spraying (16 MD @ PhP 275/MD)		4,400.00	4,400.00
- Harvesting (10 MD @ PhP 275/MD)		2,750.00	2,750.00
B.2 Coconut	8,175.00	-	8,175.00
- Fertilizer application (5 MD @ PhP 275/MD)	1,375.00		1,375.00
- Copra Production (harvesting, hauling, piling, dehusking, splitting, drying, scooping/slicing, bagging, hauling/transport) = 6,800 nuts x PhP 1.00/nut	6,800.00		6,800.00
TOTAL COST OF PRODUCTION	**16,025.00**	**35,225.00**	**51,250.00**
YIELD AND INCOME			
- Hot Pepper (5,000 kg x PhP 25.00 per kg)		125,000.00	125,000.00
- Copra (6,800 nuts/ha./4.5 nuts per kilo of copra* PhP 37 per kg. of copra)	55,000.00		55,500.00
TOTAL GROSS INCOME	**55,500.00**	**125,000.00**	**180,500.00**
NET INCOME	**39,475.00**	**89,775.00**	**129,250.00**
ROI (%)	**246%**	**255%**	**252%**

Notes :

- Average Minimum Daily Wage based on the National Wages and Productivity Commission- Minimum Wage Rate for Agriculture - As of Oct. 1, 2014

- Copra production was computed at 4.5 nut for every kilo of copra

- Price of copra is constant (farmgate price)

- Price of hot pepper is constant (farmgate price)

- Price of fertilizers based on FPA Price Statistics - As of Sept 2014 plus transport and warehousing cost

/DDA

COCONUT- CATTLE ENTERPRISE 1 Hectare
ONE-BREEDER CATTLE MODULE
COST- RETURN ANALYSIS

PARTICULARS	COCONUT (100 Trees/Ha.)	CATTLE (One Prod Cycle- 10 mos.)	TOTAL
COST			
A. Materials	**7,850.00**	**25,650.00**	**33,500.00**
A. 1 Cattle	**-**	**25,650.00**	**25,650.00**
- Stock (1-breeder cattle; 180 kg. - 300 kg.; 18-24 mos old @ PhP 25,000/head)		25,000.00	25,000.00
- Bull service (PhP 300/service/head)		300.00	300.00
- Housing, Fencing and Pasture area (PhP 250/head)		250.00	250.00
- Veterinary Drugs (PhP 50/head)		50.00	50.00
- Supplies (PhP 50/head)		50.00	50.00
A. 2 Coconut	**7,850.00**	**-**	**7,850.00**
- Ammonium Sulfate (AS) (1.5 Kg./Tree x 100 T = 150 Kg. @ 50 Kg./bag = 3 bags @ PhP 750/bag)	2,250.00		2,250.00
- Potassium Chloride (KCl) (2 Kg./Tree x 100 T = 200 Kg. @ 50 Kg./bag = 4 bags @ PhP 1400/bag)	5,600.00		5,600.00
B. Labor	8,175.00	5,000.00	13,175.00
B. 1 Cattle	**-**	**5,000.00**	**5,000.00**
- Labor @ PhP 500/month x 10 months		5,000.00	5,000.00
B. 2 Coconut	**8,175.00**	**-**	**8,175.00**
- Fertilizer application (5 MD @ PhP 275/MD)	1,375.00		1,375.00
- Copra Production (harvesting, hauling, piling, dehusking, splitting, drying, scooping/slicing, bagging, hauling/transport) = 6,800 nuts x PhP 1.00/nut	6,800.00		6,800.00
TOTAL COST OF PRODUCTION	**16,025.00**	**30,650.00**	**46,675.00**
YIELD AND INCOME			
a. Cattle	-	70,000.00	70,000.00
- Offspring - 1 x PhP 15,000/head		15,000.00	15,000.00
- Inventory Value (1 head x PhP 25,000)		25,000.00	25,000.00
- Milk (1,000 liters/250 milking days @ PhP 30 per liter)		30,000.00	30,000.00
b. Coconut			
- Copra (4.5 nut/Kg. of copra x PhP 20/kg.)	30,000.00	-	30,000.00
TOTAL GROSS INCOME	**30,000.00**	**70,000.00**	**100,000.00**
NET INCOME	**13,975.00**	**39,350.00**	**53,325.00**
ROI (%)	**87%**	**128%**	**114%**

Notes :

- Average Minimum Daily Wage based on the National Wages and Productivity Commission- Minimum Wage Rate for Agriculture - As of Oct. 1, 2014

- Copra production was computed at 4.5 nut for every kilo of copra

- Price of copra is constant (farmgate price)

- Price of cattle/head is constant (farmgate price)

- Price of fertilizers based on FPA Price Statistics - As of Sept 2014 plus transport and warehousing cost

/DDA

COCONUT- GOAT ENTERPRISE 1 Hectare

1:5 BUCK-DOE-LEVEL MODULE

COST- RETURN ANALYSIS

PARTICULARS	COCONUT (100 Trees/Ha.)	GOAT (One Prod Cycle- 8 mos.)	TOTAL
COST			
a. Materials	**7,850.00**	**19,250.00**	**27,100.00**
a. 1 Goat	**-**	**19,250.00**	**19,250.00**
- 5 native-breeder does @ PhP 2,000/head)		10,000.00	10,000.00
- 1 buck @ PhP 7,500/head)		7,500.00	7,500.00
- Housing, Fencing, Pasture (PhP 250/head)		1,250.00	1,250.00
- Veterinary Drugs (PhP 50/head)		250.00	250.00
- Supplies (PhP 50/head)		250.00	250.00
a. 2 Coconut	**7,850.00**	**-**	**7,850.00**
- Ammonium Sulfate (AS) (1.5 Kg./Tree x 100 T = 150 Kg. @ 50 Kg./bag = 3 bags @ PhP 750/bag)	2,250.00		2,250.00
- Potassium Chloride (KCl) (2 Kg./Tree x 100 T = 200 Kg. @ 50 Kg./bag = 4 bags @ PhP 1400/bag)	5,600.00		5,600.00
b. Labor	**8,175.00**	**2,000.00**	**10,175.00**
b. 1 Goat	**-**	**2,000.00**	**2,000.00**
Labor (PhP 250/month) for 8 months		2,000.00	2,000.00
b. 2 Coconut	8,175.00	-	8,175.00
- Fertilizer application (5 MD @ PhP 275/MD)	1,375.00		1,375.00
- Copra Production (harvesting, hauling, piling, dehusking, splitting, drying, scooping/slicing, bagging, hauling/transport) = 6,800 nuts x PhP 1.00/nut	6,800.00		6,800.00
TOTAL COST OF PRODUCTION	**16,025.00**	**21,250.00**	**37,275.00**
YIELD AND INCOME			
a. Goat			
- Offspring - 10 x PhP 4,000/head		40,000.00	40,000.00
- Inventory Value (5 does @ PhP 2,000/head + 1 buck @ PhP 7,500/head)		17,500.00	17,500.00
b. Coconut			
- Copra (4.5 nut/Kg. of copra x PhP 37/kg.)	55,500.00		55,500.00
TOTAL GROSS INCOME	**55,500.00**	**57,500.00**	**113,000.00**
NET INCOME	**39,475.00**	**36,250.00**	**75,725.00**
ROI (%)	**246%**	**171%**	**203%**

Notes :

- Average Minimum Daily Wage based on the National Wages and Productivity Commission- Minimum Wage Rate for Agriculture - As of Oct. 1, 2014

- Copra production was computed at 4.5 nut for every kilo of copra

- Price of copra is constant (farmgate price)

- Price of goat/head is constant (farmgate price)

- Price of fertilizers based on FPA Price Statistics - As of Sept 2014 plus transport and warehousing cost

/DDA

COST AND RETURN ANALYSIS FOR ONE HECTARE ABACA FARM - Good Farm

ACTIVITIES/PARTICULARS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8	YEAR 9	YEAR 10	AVERAGE
A. Gross Income/Sales (P)*		32,400	97,200	129,600	129,600	129,600	129,600	129,600	129,600	129,600	115,200
Production/yield	0	720	2,160	2,880	2,880	2,880	2,880	2,880	2,880	2,880	2,560
B. Operating Expenses											
1. Labor											
1.1 Farm Establishment	12,600	-									6,300
Land Preparation											
- Underbrushing and cutting of unnecessary trees, 30 md	6,000										6,000
- Burning and piling of debris, 8 md	1,600										1,600
Planting											
- Lay-outing and staking, 5 md	1,000										1,000
- Distribution of seedpieces, digging of holes and planting, 20 md	4,000										4,000
1.2 Maintenance	5,600	5,600	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,120
1.1 Underbrushing, ringweeding and removal of dry leaves, 5md x 3 times/yr	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000
1.2 Replanting, 3 md	600	600									600
1.3 Application of fertilizer and insecticides	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
1.3 Harvesting, Extraction, Drying & Bundling		5,040	15,120	20,160	35,760	35,760	35,760	35,760	35,760	35,760	28,320
1.3.1 Topping of leaves, 2MD/harvest		-	-	-	1,200	1,200	1,200	1,200	1,200	1,200	800
1.3.2 Tumbling and Piling, 4MD/harvest		-	-	-	2,400	2,400	2,400	2,400	2,400	2,400	1,600
1.3.3 Tuxying and Hauling, 18MD/harvest		-	-	-	10,800	10,800	10,800	10,800	10,800	10,800	7,200
1.3.4 Stripping (Stripping Machine Rental), P7/kg		5,040	15,120	20,160	20,160	20,160	20,160	20,160	20,160	20,160	17,920
1.3.5 Drying and Bundling, 2MD/harvest		-	-	-	1,200	1,200	1,200	1,200	1,200	1,200	800
TOTAL LABOR COST (a)	18,200	10,640	20,120	25,160	40,760	40,760	40,760	40,760	40,760	40,760	31,868
2. Materials											
2.1 Seedpieces, 1760 pcs	44,000										44,000
2.2 Stakes, 1,600 @P1	1,600										1,600
2.3 Farm tools & Equipment	1,475	1,475	1,475	1,475	1,475	1,475	1,475	1,475	1,475	1,475	1,475
2.4 Fertilizer, 3 bags @P1200/bag 3 times/yr	10,800	10,800	10,800	10,800	10,800	10,800	10,800	10,800	10,800	10,800	10,800
2.5 Pesticides 2 lit/year @ P600/lit	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200
TOTAL COSTS OF MATERIALS INPUT (b)	59,075	13,475	13,475	13,475	13,475	13,475	13,475	13,475	13,475	13,475	18,035
3. Logistics											
3.1 Planting materials (P2/pc)	3,520										3,520
3.2 Fertilizer and pesticides	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200
3.3 Farm tools	1,000										
3.4 Fiber yield (P2/kg from farm to nearest trader)	-	1,440	4,320	5,760	5,760	5,760	5,760	5,760	5,760	5,760	5,120
TOTAL COSTS FOR LOGISTICS (c)	5,720	2,640	5,520	6,960	6,960	6,960	6,960	6,960	6,960	6,960	6,260

ACTIVITIES/PARTICULARS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8	YEAR 9	YEAR 10	AVERAGE
C. Total expenses (a+b+c)	82,995	26,755	39,115	45,595	61,195	61,195	61,195	61,195	61,195	61,195	56,163
											624
D. Net Income (A-C)	(82,995)	5,645	58,085	84,005	68,405	68,405	68,405	68,405	68,405	68,405	47,517

* Selling price @ P40/kg

** Labor cost @ P 200/day

	payback period	3.71

FIBER PRODUCTION											
Total No. of Hills/Hectare	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600
Number of harvestable stalks/hill		1	3	4	4	4	4	4	4	4	4
Total Harvested Stalks/ha/year		1,600	4,800	6,400	6,400	6,400	6,400	6,400	6,400	6,400	5,689
Average weight of stalks, kg		30	30	30	30	30	30	30	30	30	30
Fiber Recovery, in %		1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
Total Fiber Production per hectare (kgs)		720	2,160	2,880	2,880	2,880	2,880	2,880	2,880	2,880	2,560
Frequency of Harvesting		1	2	3	3	3	3	3	3	3	3

Note: Planted under coconut or leguminous trees, or fruit trees with spacing of 10 meters by 10 meters

MODULE

4

PLANNING THE FARM BUSINESS

In this module, options in optimizing profit of the farm will be discussed. In addition, plans and steps to follow to optimize profit of the farm will be explored.

SESSION 2: FORMULATING A FARM BUSINESS PLAN

OBJECTIVES

ACQUIRED KNOWLEDGE

Participants:

- Understand what a farm business plan is.
- Understand that a farm business plan is useful to develop the farm
- Enumerate and describe the components of a farm business plan;

ACQUIRED SKILL

Participants can prepare a farm business plan.

ACQUIRED ATTITUDES

Participants begin to be results oriented and want to improve their farm business.

METHODS

Plenary Discussion
Group activity

TRAINING SUPPLIES, TOOLS AND MATERIALS

Manila paper, marking pens, whiteboard and pen(or blackboard and chalk), meta cards, adhesive tape, push pins, calculator, business planning templates, handout of a farm business plan components and prepared exercises, computer and projector

KEY TOPICS

A. What is a farm business plan?
B. What are the benefits of having a farm business plan?
C. What are the components of a farm business plan?

DURATION

4 hours

KEY TOPIC	INTRODUCTION		
DURATION	5 minutes	TRAINING RESOURCES	

ACTIVITIES

- Welcome participants. Introduce the module or session and its objectives
- **GET ATTENTION**
  Are you ready to earn more income from your coconut farms?
- **EXPLAIN OUTCOMES**
  By participating in this session, you will be able to prepare a sound and viable business plan for your farm.
- **EXPLAIN STRUCTURE**
  In this session, you will learn about the components of the business plan and prepare one for your coconut farm.

KEY TOPIC	WHAT IS A FARM BUSINESS PLAN?		
DURATION	10 minutes	TRAINING RESOURCES	Whiteboard and pen, PPT, computer and projector

PLENARY DISCUSSION AND LECTURE

1. Ask a volunteer to share his/her ideas or understanding about a farm business plan: what it is and what is its purpose or importance.

2. Acknowledge his/her ideas. Reinforce good ideas. Then link to the definition and descriptions below.

A FARM BUSINESS PLAN IS A DOCUMENT THAT RECORDS THE MOST IMPORTANT DECISIONS AND ACTIONS AFFECTING THE OPERATION OF THE FARM BUSINESS.

WHAT ARE THE BENEFITS OF HAVING A FARM BUSINESS PLAN?

LECTURE-PRESENTATION:

THERE ARE TWO COCONUT FARMERS NONG JUAN AND NONG GIL. NONG JUAN USES BUSINESS PLAN IN HIS FARM BUSINESS WHILE NONG GIL DOES NOT USE ANY PLAN. WHO DO YOU THINK EARNS MORE?

Answer: Nong Juan

Ask the participants: Why?
Answer: Because he has a tool to make sure that all the things that need to be done are done appropriately so that his farm business will be more profitable.

Ask the participants.

WHAT DO YOU THINK ARE THE PARTS OF A FARM BUSINESS PLAN?

The details of the farm business plans are organized under the following components:

BACKGROUND	MARKET PLAN
FARM PRODUCTION PLAN	PROFITABILITY

KEY TOPIC	WHAT ARE THE BENEFITS OF HAVING A FARM BUSINESS PLAN?		
DURATION	15 mins - discussion 20 mins - processing	TRAINING RESOURCES	PPT computer and projector or Tarpaulin, Activity output

GROUP DISCUSSION

Ask the participants: **What is farm business plan?**

A farm business plan is a document that records the most important decisions and actions affecting the operation of the farm business. It is a way to make sure that all the things that need to be done are done, and in a way that makes the farm more profitable.

Now, let's have a closer look in each component of the training curriculum.

BACKGROUND	Background covers the ultimate goal along with your strategies to achieve the goal. This would help you stay focused on what he or she wants to achieve.

Goal: should be focused on economics. For example, to increase farm productivity of coconut farm by 20%.
Strategies: should include how you want to achieve your goals. This should include environmental, social and risk mitigation strategies.

Ask the participants.

WHAT ARE THE RISKS?

Possible answer:
Risk refers to things that could happen and that can harm the farm business.
You need to anticipate these risks ahead of time, and be prepared with mitigation strategies.

RISKS	HOW TO HANDLE THE RISK
• Produce can be damaged on the way to the market resulting in a lower market price. • Market price can drop resulting in lower profits.	• Ensure a proper protective packaging for the produce. • Remain alert to the changes in the market, and decide when to sell and how much to sell

Now, ask the participants **examples of strategies**:
Possible answers:

1. Frequent, timely application of organic fertilizer.
2. Plant marketable intercrops in my coconut farm
3. Select crops based on market demand and low lying crops to mitigate strong winds and typhoons.

WORKSHOP 1: GOAL AND STRATEGIES SETTING

1. Group the participants into 5 and let them reflect from the previous presentation on the options to increase income and discuss their goal and strategies for 10 minutes.
2. Post the results of their discussion and summarize.
3. Important that each group has clear target.
4. After discussing your goal and strategies, we will now prepare a production plan.

DURATION	30 minutes	TRAINING RESOURCES	PPT computer and projector or Tarpaulin, Activity output

FARM PRODUCTION PLAN

This specifies:

1. What crop you will grow (as enterprise),
2. How much land area you will plant, and
3. How much yield you intend or expect to produce.

Crop Type	Area (ha)	Inputs Required (kg)	Estimated Price of Inputs (PhP/kg)	Output (kg/ha)	Total Output (kg)

Type of Animal	Number of Animals	Estimated Price of Animals (PhP/pc)	Yield per animal	Total Liters

Explain what is to be placed in each column.

PLENARY DISCUSSION

Based on the market opportunities, you should now decide what crop you will plant or animal you will raise. Ask the participants:

WHY IS IT IMPORTANT TO ALSO INDICATE THE ACTUAL AREA PLANTED?

Possible answer:
To later assess how much inputs are required in order to ensure the productivity of the farm

WHY IS IT IMPORTANT TO INDICATE THE INPUTS REQUIRED ALONG WITH ITS PRICES?

Possible Answer:
So you would know how much you will buy and how much would be your budget.

WOULD IT ALSO BE IMPORTANT TO KNOW THE NUMBER OF ANIMALS? WHY?

Possible Answer:
So one would know how much inputs and budget will be required to grow these animals.

Lastly for both, it would also be important to note the total output or total crop yield and litter (for animals) so you would know if you have enough for your market or you could use excess produce for home consumption.

Emphasize that the total output is computed by multiplying actual area planted and the output per hectare.

WORKSHOP 2: PRODUCTION PLAN PREPARATION

Ask the participants to go to their groups and for 20 minutes, prepare a production plan aligned to the target results and strategies agreed earlier. Ask participants may want to recall the options to optimize their coconut farm session materials. Post the results of their discussion and summarize. Clarify items that are unclear.

DURATION	35 minutes	TRAINING RESOURCES	PPT computer and projector or Tarpaulin, Activity output

MARKET PLAN

PLENARY DISCUSSION

Marketing is critical to the success of the farm business in that:

- A product can make profit only if someone is willing to pay for it (buys it)
- A product can be sold only if there is a customer

A **Market Plan** must be made for each enterprise. It must show how you intend to market/sell your products. It should include:

- the target market
- the buyer
- the quantity of the product to be sold,
- the expected market price,
- an estimate of the marketing costs- and
- the farm gate price.

Market Plan Details						
Enterprise	Target market	Buyer	Expected Quantity to Sell (Units)	Market Price (PhP/ unit)	Farm gate Price (PhP/ unit)	Mode of Delivery
Tomatoes	Star market	Pedro	8000kg			

It must also give a good calculation of:

- What quantity of produce is going to be sold? This should be consistent with the quantity shown in the production table.
- What price will you get for your product if you sold it at your farm gate?
- What price will you get for your product if you sold it at the market?
- What costs will you have to take your product to the market?

Price

The price you get for a product is influenced by many things. One of those things is where you sell it. You could sell your product to a buyer who comes to your farm gate. You could sell it at the market closest to you. Or you could sell it at some other market. Each market will pay a different price for your product.

Farm gate price. The price you get when you sell your product from the farm is called the farm gate price. It is usually the lowest price you will get for your product. But selling at your farm gate does not involve transport costs. So while the price is lower, your costs are lower too.

Market price. The market price is the price you would get selling your product to a market away from your farm. To sell on this market will cost you something extra at least for packaging and transport.

Marketing cost. The extra money you must pay to prepare your product and transport it to the market is called the marketing cost. When you add this cost to the farm gate price, you get the lowest price you can accept in the market.

WORKSHOP 3: MARKET PLAN PREPARATION

Group the participants into 5 and based on the options earlier presented, for 15 minutes the group will decide on where to market the produce, etc.

Post the results of their discussion and summarize.

After preparing the production and market plan, the budget or financial plan should also be prepared.

DURATION	30 minutes	TRAINING RESOURCES	PPT computer and projector or Tarpaulin, Activity output

FINANCIAL PLAN

PLENARY DISCUSSION

The financial plan details the profitability of each enterprise. Show the profitability table.

Recall the session on farm profitability. Ask the following questions and lead them to recall.

1. What are "incomes"?
2. What are "variable cost"?
3. What are "profit"?

Process the answers by explaining these three items again.

Enterprise 1: Coconut (Copra)				
For the period: January to December 2018				
Area under cultivation: One (1) Hectare				
Item No	Item	Quantity	Unit Price (Php)	Total
I	A. Income			
	Copra - 5 nuts per tree x 12 months @ 4 nuts:1kg copra	1,500 kg	37/kg	55,500
Total Income				55,500
II	B. Variable Cost x 4			
	Labor Cost			
	Slashing	2man-days	150/day	300
	Climbing (harvest)	100 trees	10/tree	1,200
	Gathering	1 man animal days	P300	300
	Dehusking	1,500 nuts	P0.20/pc	300
	Splitting	1,500 nuts	0.15/pc	225
	Drying	2 man-days	P150.00/day	300
	Scooping	1,500 nuts	0.10/pc	150
	Transportation (trucking) to trader	8 sacks	20/sack	160
	Harvesting labor cost			2,935
	Total Labor Cost			11,740
	Material Cost			
	Fertilizer (Salt)	2 Bags	340/bag	680
	Sacks	8x4	P10/sack	320
	Total Material Cost			1,000
Total Variable Cost				12,740
III. Profit = Total Income – Total Variable Cost Profit/Loss= Money in – Money out				42,760
IV. Minus Fixed Cost (for facilities for copra alone)				?
Enterprise Profit				?

For the period: One production cycle (3 months) within January 2018-December 2018

Area under cultivation: One (1) HectareArea

Enterprise: (Ampalaya) For the period Area under			
Item	Quantity	Unit Price (PHP)	Value (PHP)
Ampalaya	5,000kg	27/kg	135,000
Total Income			
Variable Costs			
Item	Quantity	Unit Price (PHP)	Value (PHP)
Plowing	1 MAD	450/MAD	450.00
Sowing	1 MD	275/MD	275.00
Seedbed Preparation	5 MD	275/MD	1,375.00
Transplanting	3 MD	275/MD	825.00
Fertilizer Application	7 MD	275/MD	1,925.00
Cultivation	5 MD	275/MD	1,375.00
Trellising	15 MD	275/MD	4,125.00
Irrigation	5 MD	275/MD	1,375.00
Spraying	10 MD	275/MD	2,750.00
Weeding	20 MD	275/MD	5,500.00
Harvesting	15 MD	275/MD	4,125.00
Seeds	300 g/ha	25/gram	7500
Triple 14 fertilizer (3 bags @ 50 kg/bag x PhP 1400/bag)	3 bags *50 kg/bag	1400/bag	4200
Insecticides (7.5 liters)	7.5 L		11,250
Trellising materials			20,000
Total Variable Costs			67,050
Enterprise Profit (Income – Variable Costs)			?

After the profitability table for each crop was filled out, prepare a summary table using the template below. The farm business profit is taken by deducting the fixed cost from the total enterprise profit.

For the period: _____ to _____		
Total area under cultivation (has): _____		
Incomes	Value (PhP)	
Enterprise 1: _____		
Enterprise 2:_____		
Total Income	(PhP)	
Variable Costs		
Item	Value (PhP)	
Material Inputs (all enterprises)		
Power Inputs (all enterprises)		
Other costs (all enterprises)		
Total Variable Costs		(PhP)
Profit (income – variable costs) (all enterprises)		(PhP)
Minus fixed Cost		PhP
Net Profit (whole farm)		PhP

Discuss the fixed costs that may have to be included in the financial plan. If an enterprise uses a machine or a facility during the production, the fixed cost should be included. For example, in copra production, a kukum dryer may have been used.

Ask what amount should be ascribed to this computation. Recall the concept of depreciation.

WHAT IS DEPRECIATION?

Possible Answers:
- is the reducing value of an asset
- allocation of the cost of assets to periods in which the assets are used

Compute the depreciated cost that will be included in the computation of the profit for copra for this cycle. Deduct this from the initial profit computed and get the final profit for the copra enterprise.

Do the same for all other machines and small infrastructures that are needed to produce the final output of the enterprise.

ENTERPRISE PROFIT	-	TOTAL FIXED COST	=	WHOLE FARM PROFIT

Discuss that if the facility or machinery is shared by the 2 or 3 enterprises in the plan, add the profits from the 2 or 3 enterprises, then compute the farm business profit.

KEY TOPIC	CLOSING THE SESSION		
DURATION	5 minutes	TRAINING RESOURCES	

Close the session.

Review and the session and integrate all the parts of the farm business plan. Make sure that the participants see the whole picture and the relationship of the each component of the plan. Point out the connection of the strategies to the goals.

SAY

"It is important that your strategies are responsive to your goal. For example, if you want to improve your farm productivity. Your strategies should be aligned to that. For example, you have chosen to fertilize your coconut farm in a timely manner and with right amount. Thus, this should be considered in your market plan through projected volume. Now, will the targeted market give the desired price? In your production plan and profitability plan, amount and cost of fertilizer should be included."

Get feedback.

After preparing your plan, you are now ready to implement it but prior to implementation there are other important considerations such as your capital, how will you manage your money, among others. These would all be discussed for our next session.

REFERENCES / CITATIONS

Training material from GTZ/CLP Regional expert meeting
Farmer Business School Training Notebook and Workbook Cocoa Production Systems Ghana. July 2015.
DA-ATI/DAR/FAO FBS Manual: a handbook for Filipino Farmers. 2015.

ANNEX 1: COMPONENTS OF FARM BUSINESS PLAN

COMPONENTS OF FARM BUSINESS PLAN

Name of Head of Farm	
Male or Female	
Age	
Number of people to feed	
Telephone Number	
Location of Farm	
Name of the farmer organization	
Member of a farmer organization	
FFS-graduate Yes No	

PRODUCTION PLAN

States what crop you will grow and the number of ha you will plant.

Crop Type	Area (ha)	Inputs Required (kg)	Estimated Price of Inputs (PhP/kg)	Output (kg/ha)	Total Output (kg)

Type of Animal	Number of Animals	Estimated Price of Animals (PhP/pc)	Yield per animal	Total Litters

MARKET PLAN

Market Plan Details						
Enterprise	Target market	Buyer	Expected Quantity to Sell (Units)	Market Price (PhP/ unit)	Farm gate Price (PhP/ unit)	Mode of Delivery
Tomatoes	Star market	Pedro	8000kg			

FINANCIAL PLAN: PROFITABILITY PROJECTION

Enterprise 1: Coconut (Copra)				
For the period: January to December 2018				
Area under cultivation: One (1) Hectare				
Item No	Item	Quantity	Unit Price (Php)	Total
I	A. Income			
	Copra - 5 nuts per tree x 12 months @ 4 nuts:1kg copra	1,500 kg	37/kg	55,500
Total Income				55,500
II	B. Variable Cost x 4			
	Labor Cost			
	Slashing	2man-days	150/day	300
	Climbing (harvest)	100 trees	10/tree	1,200
	Gathering	1 man animal days	P300	300
	Dehusking	1,500 nuts	P0.20/pc	300
	Splitting	1,500 nuts	0.15/pc	225
	Drying	2 man-days	P150.00/day	300
	Scooping	1,500 nuts	0.10/pc	150
	Transportation (trucking) to trader	8 sacks	20/sack	160
	Harvesting labor cost			2,935
	Total Labor Cost			11,740

	Material Cost			
	Fertilizer (Salt)	2 Bags	340/bag	680
	Sacks	8x4	P10/sack	320
	Total Material Cost			1,000
Total Variable Cost				12,740
III. Profit = Total Income – Total Variable Cost Profit/Loss= Money in – Money out				42,760
IV. Minus Fixed Cost (for facilities for copra alone)				?
Enterprise Profit				?

For the period: One production cycle (3 months) within January 2018-December 2018

Area under cultivation: One (1) HectareArea

Enterprise: (Ampalaya) For the period Area under			
Item	Quantity	Unit Price (PHP)	Value (PHP)
Ampalaya	5,000kg	27/kg	135,000
Total Income			
Variable Costs			
Item	Quantity	Unit Price (PHP)	Value (PHP)
Plowing	1 MAD	450/MAD	450.00
Sowing	1 MD	275/MD	275.00
Seedbed Preparation	5 MD	275/MD	1,375.00
Transplanting	3 MD	275/MD	825.00
Fertilizer Application	7 MD	275/MD	1,925.00
Cultivation	5 MD	275/MD	1,375.00
Trellising	15 MD	275/MD	4,125.00
Irrigation	5 MD	275/MD	1,375.00
Spraying	10 MD	275/MD	2,750.00
Weeding	20 MD	275/MD	5,500.00
Harvesting	15 MD	275/MD	4,125.00
Seeds	300 g/ha	25/gram	7500
Triple 14 fertilizer (3 bags @ 50 kg/bag x PhP 1400/bag)	3 bags *50 kg/bag	1400/bag	4200
Insecticides (7.5 liters)	7.5 L		11,250
Trellising materials			20,000
Total Variable Costs			67,050
Enterprise Profit (Income – Variable Costs)			?

Income			
Item	Quantity	Unit Price (PHP)	Value (PHP)
Total Income			
Variable Costs			
Item	Quantity	Unit Price (PHP)	Value (PHP)
Total Variable Costs			
Enterprise Profit (Income Variable Costs)			

Summary of Profitability Projection Table

For the period: _____ to _____		
Total area under cultivation (has): _____		
Incomes	Value (PhP)	
Enterprise 1: _____		
Enterprise 2:_____		
Total Income	(PhP)	
Variable Costs		
Item	Value (PhP)	
Material Inputs (all enterprises)		
Power Inputs (all enterprises)		
Other costs (all enterprises)		
Total Variable Costs		(PhP)
Profit (income – variable costs) (all enterprises)		(PhP)
Minus fixed Cost		PhP
Net Profit (whole farm)		PhP

MODULE

5

IMPLEMENTING YOUR FARM BUSINESS

In this module, various means to jump-start the farm business will be introduced. These include managing farmers' financial resources, accessing financial services and organizing for business operations.

ORGANIZING, MONITORING, PRODUCING AND MARKETING YOUR FARM BUSINESS

OBJECTIVES

ACQUIRED KNOWLEDGE

Participants understand:

- how to manage farmers' money throughout the year;
- how to create savings and proper use of credit the benefits of group business undertakings: marketing, buying and savings

ACQUIRED SKILLS

Participants:

- can create a Financial Calendar to monitor the expenses, sales and profit on a monthly basis
- are cautious on what aspects to consider before applying for loan

ACQUIRED ATTITUDES

- Participants display good values related to savings and credit
- Participants acknowledge the value added being part of an organization

METHODS

Experiential sharing, group discussions, hands-on computations, lecture, role-playing, workshop, games, plenary discussions

TRAINING SUPPLIES, TOOLS AND MATERIALS

Manila paper, marking pens, whiteboard and pen(or blackboard and chalk), adhesive tape, push pins, calculator, templates and prepared exercises.

KEY TOPICS

A. Importance of managing your money
B. Importance of creating savings
C. Access to financial services
D. Organizing for collective business actions
E. Producing, Monitoring and Marketing your produce

DURATION

4 hours

KEY TOPIC	INTRODUCTION		
DURATION	5 minutes	TRAINING RESOURCES	

ACTIVITIES

- Welcome participants and introduce yourself.
- **GET ATTENTION**
  Do you know your monthly household/farm is your expenses?
  Do you know when to avail loan for your farm business?
- **EXPLAIN OUTCOMES**
  By participating in the activities of this training, farmers will understand how to manage money throughout the year so they could plan their expenditure, how to save and assess credit institution and the benefits of being a member of an organization.
- **EXPLAIN STRUCTURE**
  In this session, there will be role playing, guided workshop and games.

KEY TOPIC	MANAGING YOUR MONEY TOWARDS CREATING SAVINGS		
DURATION	20 minutes	TRAINING RESOURCES	Role play instructions, manila paper, marking pen

WHY MANAGE YOUR MONEY THROUGHOUT THE YEAR?

ACTIVITY 1: ROLE PLAYING

1. Ask two participants to take the roles of farmers (Farmer 1 and Farmer 2).
Situation and scenario: Harvest has long been over. It is lean season and cropping/planting time is fast approaching.

Farmer 1 has spent all his money he received from sales and has problems to finance household expenditure and upcoming planting season

Farmer 2 allocated all his money he received from sales for household expenditure, for anticipated expenses come cropping season.

Note: In the role playing, always discuss how much they will receive from sales, household expenditures, etc. so that audience (other participants) will better appreciation.

Give the "actors" the conversation details and give them 10 minutes to prepare for a 5-minute role play.

2. While both "actors" are preparing, You may ask the participants: How do you manage your expenses? Are you writing them down?

3. Let's see how our two farmers manage their farms. Instruct the participants to take down notes regarding their learning and observations from the role play.

4. After the role play, process the observations and learnings of the participants as they are shared in a plenary. Reinforce good ideas. Add the following information:

SHORT PLENARY LECTURE TO EMPHASIZE THE FOLLOWING KEY POINTS:

1. In the agricultural enterprise, expenditures (Money-Out) for the farm and the household are made each month, but the revenue (Money In) comes only during the months of harvest or sale of produce.
2. Therefore there are months of the year where Money-Out is greater than Money-In. These months are called "deficit months."
3. Managing money well helps the farmer prepare for the expenditures in deficit months and thus get less dependent of cash advance at high interest rates.
4. Good Agricultural Practice and quality inputs can contribute to improve the revenues of the agricultural entrepreneur.
5. The money needed in certain months for inputs can be calculated using the right quantity for the measured farm.
6. For this reason, the good agricultural entrepreneur (man or woman) makes a financial calendar. He/she plans with the spouse the expenditures for production and household needs.

HOW TO PLAN EXPENDITURE OF A FARM AND A HOUSEHOLD USING THE FINANCIAL CALENDAR AS TOOL?

SAY

"After understanding the value of savings, we will now introduce a tool called financial calendar to monitor your spending and savings so that you can plan your expenditures throughout the year."

DURATION	1 hour	TRAINING RESOURCES	Manila paper, marking pen, template of Financial Calendar and sample filled our calendar

ACTIVITY 2: PLENARY DISCUSSION

1. Provide each participant a printed financial calendar template [REFER TO ANNEX 1]
2. Introduce the financial calendar.

SAY

"In financial calendar you must record your monthly farm and household expenses as well as your income. Using the budget on copra production, let us prepare a financial calendar for a household consisting of four (4) family members."

WHAT ARE OUR HOUSEHOULD EXPENSES?

Possible Answers: Food, Clothing, Water bill, Electric expenses, groceries, education related expenses

WHAT ARE OUR USUAL FARM INVESTMENT OR EXPENSES WHEN WE PRODUCE COPRA?

Possible Answers: Harvesting, Sacking, Scooping, Dehusking, Splitting, Drying, Inputs such as fertilizers, etc.

Now we estimate how much these would cost and plug it in our financial calendar. Ask participants: For a family of 4 how much is the monthly spending on food? Write answer in column January to December row food.

Note: Review the prepared financial calendar. trainers may adjust based on actual scenario on the field.

REFER TO ANNEX 2

3. Emphasize the importance of proper management of farm and household finances. Link by asserting that savings can provide much help for farmers to increase production.

Ask the participants:

WHY IS IT IMPORTANT TO CREATE SAVINGS?

Possible answers:
1. Some money to use during emergency (for example your daughter gets sick) when farm is not able to produce;
2. There is some money on the side that could be used to invest and be able to expand the farm business enterprise and thereby make greater revenue. (For example, you are able to buy fertilizer to improve yield and business).;
3. If you save on a bank account, your money is safe;
4. With the interests on savings that your deposit can earn, money is protected against inflation (when cost of living increases);
5. Savings on an account are often necessary to obtain a loan. If one has savings, it will be easier to access loans from lending institutions when needed especially for school fees, illness of family member, etc.

DURATION	20 minutes	TRAINING RESOURCES	

ACTIVITY 3: GAME: Bangko o bahay: Yong Totoo!

1. Give each participant a printed flash card with the word Bangko (Bank) on one side and Bahay (House) on the other.
2. Tell the participants that this game is about their usual practice of keeping or managing money, big or small.
3. Instruct the participants to tell honestly their practice or method of keeping/managing money by choosing just one between the two after the Go! Signal below is given.

ESEP-ESEP, YONG TOTOO, GO!

4. Ask the participants:
Bank: Why did you choose bank?
House: Why did you choose house?
5. Write their answers on metacards and post on the board.
6. Process the activity and acknowledge good ideas. Show comparison between saving money in the bank and at home with the following advantages and disadvantages:

REFER TO ANNEX 3

SAY

Summarize: "Savings is really important as farmers who do not save money (even if small) are also those who are in generally worse off and that those who actively save (even small amounts) are the ones that are developing into more profitable ones."

More than saving, **saving while investing is also a good strategy for farming**.

Ask the participants:

HOW DO WE DO THAT?

• Through buying fertilizer earlier than needed, when fertilizer prices are low and using it when needed at a later stage. This strategy can also prevent the household from spending money if it is at home and could be an option for those who do not want to open a bank account
• For example, you harvest and process coconuts for copra in the month of March. Immediately after computing and getting your profit, you bought fertilizer since price is low and you know that this will enhance the productivity of your coconut farm. This will be used by September but can be stored and money will not be spent for something else.

KEY TOPIC	CREDIT AND INVESTMENT IN FARM ENTERPRISES		
DURATION	20 minutes	TRAINING RESOURCES	Financial calendar, whiteboard and pen (or blackboard and chalk)

1. Get attention by asking:

- IN WHAT WAYS CAN YOU BORROW MONEY, AND WHAT IS THE BENEFIT?
- WHAT HAPPENS WHEN YOU BORROW MONEY? (YOU BORROW MONEY FROM THE BANK, AND BANK CHARGES INTEREST) WHY IS IT IMPORTANT TO MAKE SAVINGS?
- WHAT IS AN INTEREST RATE?

2. Use capital productivity (based on the gross margin) to explain.

3. LINK by asserting that credit can provide the needed money to finance production activities and inputs Stimulate interest by telling the participants that credit is helpful in farm production.

WHAT IS CREDIT?

Ask the participants:

WHAT IS CREDIT?

It is **money you borrow from a person or a bank promising to pay back this money**. Who has experience borrowing money from the bank? What will you receive after you loan was approved? The bank gives you a letter telling you it has agreed to give you the money you have asked for. The bank also indicates when you have to pay back the total amount of money.

You, the borrower and the bank know what will be the payments of the loan and how much interest is being paid, and when is it to be paid. This makes planning very simple for all.

TWO COMMON TYPES OF CREDIT

1. BUSINESS LOAN

This kind of loan is given to business men and women (and to farmers as well) to improve or expand their (farming) business activities.

These are examples of farm business loans:

- **Input Loan** - This is a short time loan that can be used to buy seeds, fertilizer, insecticides or herbicides.
- **Expansion Loan** - This loan helps farmers to increase their farming business by increasing the cropping area.
- **Other investment** - For planting or replanting of coconut or other tree crops, you might need a loan for at least 3 years.

2. PERSONAL LOAN

These loans are not for business. It is rather used to buy things that are needed for the home like a fridge or to pay school fees. This type of loan will not cause higher returns on farm. Remember that lenders always ask the purpose of your loan.

WHEN DOES THE FARMER NORMALLY NEED TO ACCESS CREDIT FOR THE ENTERPRISE?

Answers:
1. There is a farm business opportunity or potential, but the farmer lacks funds to invest.
2. There is a cash flow problem for a certain period of time, but funds are guaranteed to be generated.

Explain, using a financial calendar, how to determine purpose, time and amount of credit needed.

SAY "Your financial calendar would help you decide when to best get a credit."

Explain the process of obtaining a credit: What type of credit would you choose? What are your considerations in assessing costs of borrowing?

Assessing the Costs of Borrowing

INTEREST RATES	Interest is the cost of borrowing money. It is usually calculated as a percentage of the amount borrowed. Interest rates may vary depending on where you get your loan. There are usually government laws that limit the interest rate so as to protect you from dishonest lenders.
BANK CHARGES	Some lenders may also charge a certain fixed amount for processing the loan. This may be charged separately or it may be made a part of the interest rate.
LOAN REPAYMENT PERIOD	This is the time over which you have to repay the loan. The period may vary depending on where you get your loan. You should choose a repayment period that is most appropriate for your enterprise.
GRACE PERIOD	This refers to the period of time between getting the loan and when you have to start repaying it. Lenders usually understand that some enterprises may need a longer period of investment before realizing profits. You should choose a grace period that is most appropriate for your enterprise.

AIMING TO BE SUCCESSFUL WITH A CREDIT, WHAT ATTITUDES A FARMER SHOULD HAVE?

Possible answers:
• Needs to be able to calculate well and realistically (!) whether it he will be able to make higher profits because of the loan (e.g. more income from new intercropping) and pay back a loan
• He/she needs to have a plan and follow it strictly (e.g. when and how much to intercrop etc.)
• He/she needs to be strong and have a strong discipline to set money aside (e.g. not to spend everything for fiesta or tanduay but to pay back as promised and to create savings he can reinvest to improve his farm even more in the next step)
• Usually needs to have a collateral

SAY "Now let us try to decide if we are going to take credit using our financial calendar earlier."

You have seen that towards the end of the year, the farmer has a deficit of more than PhP 2000. This will increase if there is an unanticipated emergency. If this is the case, how would farmer increase his income?
Answer: Through intercropping

What could be the potential return from the intercrop?
Answer: Depends on the selected crop as you have learned last time. Usually about PhP15, 000-90,000 if managed well.

Would you recommend her/him to take a loan?
Answer: Yes as this would give him/her additional income.

A good agricultural entrepreneur takes a loan only when he/she is sure to be able to repay on time. For this reason he/she plans the investments and expenditures required. Once the good agricultural entrepreneur has taken a loan, he/she sticks to the objective of the investment. Otherwise, the agricultural entrepreneur is likely to have repayment problems. At your home, try calculating whether a loan for intercropping/fertilization would make sense for your farm.

KEY TOPIC	ACCESSING FINANCIAL SERVICES		
DURATION	20 minutes	TRAINING RESOURCES	

INFORMATION ON AVAILABLE FINANCIAL SERVICES

Get attention by asking:

DO YOU KNOW HOW TO AVAIL CREDIT FROM FINANCIAL INSTITUTIONS?

Possible Answers:
• Yes. We are doing it.
• No. We do not know the requirements.

DO YOU KNOW THE FINANCIAL INSTITUTIONS THAT PROVIDE LOANS AND THEIR REQUIREMENTS?

Possible Answers:
• Land bank, BPI, etc.
• Micro credit institutions
• Requirements actually differ from bank to bank but usual requirements include:
- Farm Business Plan
- Marketing Agreement with buyers.
- Information about income or source

DID YOU KNOW THAT PRODUCTION LOANS FROM FINANCIAL INSTITUTIONS PROVIDE LOWER INTERESTS COMPARED TO TRADERS AND OTHER INFORMAL LENDERS? WHY DO YOU THINK BANK REQUIRE FARM BUSINESS PLAN AND MARKETING AGREEMENT WITH BUYERS?

Possible Answers:
• Banks wanted to ensure that you have clear plan how to implement and manage your farm business. By doing so, there will be higher chances of a successful implementation thus, gaining more profit. Banks wanted to ensure that buyers will really buy your produce in order for farmers to have income.
• Banks usually provide loans through groups (e.g. cooperatives, farmers association, etc). These will require a registration certificate from the Security Exchange Commission (SEC) or Cooperative Development Authority (CDA).

WHY DO YOU THINK THESE BANKS FINANCE ONLY ORGANIZATION OR COOPERATIVE?

Possible Answer:
Most of the time organization has the capacity to borrow and pay because it has members who are willing to share financial responsibilities. This also reduces bank transaction cost as they will not deal with individual customers/farmers.

KEY TOPIC	ORGANIZING FARMERS FOR BUSINESS ACTION		
DURATION	20 minutes	TRAINING RESOURCES	Whiteboard and pen or manila paper and marking pen

1. Get attention and ask the participants: What is the use of being in a farmer organization? Look at this calculation:

Indicators	Bitter gourd with Fertilizer		
	Unit	Individual Sale	Group Sale
Area	Ha	1	1
1. Money Out	PhP	57,300	57,300
Production	kg	5000	5000
Price	PhP	27	30
2. Money In	PhP	135,000	150,000
3. Profit of Group sales	PhP	77,700	92,700

SAY

"You would see here that group sale would entail higher profit. Why is that so?"
Answer: More sales

Farmers can negotiate for a higher price because the farmer organization has the volume as required by their market.

Look at this calculation also:

Indicators	Coconut with Fertilization		
	Unit	Individual Sale	Group Sale
Area	Ha	1	1
1. Cost of Inputs (AS + KCl)	PhP	5,850	5,500
2. Profit of Group Purchased	PhP	0	350

YOU WOULD SEE HERE THAT IF YOU BUY YOUR INPUTS IN A GROUP, YOU WOULD SAVE MORE. WHY IS THAT SO?

Answer: MORE INPUTS PURCHASED AT LOWER PRICES. Farmers can get better prices from the input supplier because service providers/input suppliers find it easier and cheaper to work with farmer groups or associations than with individuals.

What do you think are the other benefits if you belong to an organization? Farmers can easily seek financial assistance or information on production techniques from the extension workers.

Now after organizing your financial resources and deciding if you will be joining or become active in an organization, what will now be your next step?

• **Implement your business plan.**
- Improve the coconut farm by fertilizing and by harvesting in a timely manner.
- Start producing planned intercrops.
- Sell your produce based on your agreement with your buyer.

WHAT WILL YOU DO TO TRACK YOUR INPUTS AND SALES?

Possible Answer:
Record the all related activities in producing the coconut and intercrop.

KEY TOPIC	CLOSING THE SESSION		
DURATION	5 minutes	TRAINING RESOURCES	

Get Feedback and summarize the whole session:

KEY POINTS:
1. We understand now that it is important to manage money throughout the year using the financial calendar tool so you can better plan your expenditure throughout the year.
2. We understand that a farmer who is saving becomes more profitable through time compared to a farmer which has no savings at all. We understand now the value added being a member of our organization. Value added includes lower cost of inputs when buying in bulk and higher prices when being sold in bulk.
3. We reiterated the importance of producing and marketing based on your agreement with your buyer and of course, monitoring all your activities related to production until processing of your coconut and production of your intercrop.

REFERENCES / CITATIONS

PSED et al. ABC of Savings and ABC of Loans
Results on local consultancies
Farmer Business School Training Notebook and Workbook Cocoa Production Systems Ghana. July 2015.
DA-ATI/DAR/FAO FBS Manual: a handbook for Filipino Farmers. 2015.

ANNEX 1: FINANCIAL CALENDAR TEMPLATE

FINANCIAL CALENDAR TEMPLATE FOR EXERCISES

ACTIVITY	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Money Out (Cash expenses)												
A.Household												
1.												
2.												
3.												
B. Farm Investment												
1.												
2.												
3.												
Total Cash Out												
Money In (Cash income) from all sources												
1.												
2.												
Total Cash In												
Difference(surplus or deficit)												

ANNEX 2: SAMPLE FINANCIAL CALENDAR

ACTIVITY	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Money Out/Cash expenses												
Household												
1. Groceries	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
2. Water Bill	200	200	200	200	200	200	200	200	200	200	200	200
3. Electric Bill	300	300	300	300	300	300	300	300	300	300	300	300
4. Food	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
Education	150	150	150	150	150	150	150	150	150	150	150	150
Farm Investment												
Coconut (Copra)												
1. Slashing			300			300			300			300
2. Harvesting			1,200			1,200			1,200			1,200
3. Gathering			300			300			300			300
4. Dehusking			300			300			300			300
5. Splitting			225			225			225			225
6. Drying			300			300			300			300
7. Scooping			150			150			150			150
8. Transportation			160			160			160			160
9. Material Cost (fertilizer and sacks)			1,000			1,000			1,000			1,000
Ampalaya												
Plowing-Irrigation		11,725										
Spraying and Weeding			8,250									
Harvesting				4,125								
Materials												
Seeds (300 grams./ha. @ PhP 25/grams.)		7,500										
Triple 14 fertilizer (3 bags @ 50 kg/bag x PhP 1400/bag)		4,200										
Insecticides (7.5 liters)			11,250									
Trellising materials		20,000										
Total cash needed	3,650	47,075	26,785	7,775	3,650	7,285	3,650	3,650	7,285	3,650	3,650	7,285
Money In (all sources)												

ACTIVITY	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1. Selling of Copra (375 kg @37/kg)			13,875			13,875			13,875			13,875
2. Selling of Ampalaya(5000 kg @ 27)				67,500	67,500							
Total Cash Available	-	-	13,875	67,500	67,500	13,875	-	-	13,875	-	-	13,875
Months with saving (+) or Shortfall (-)	(3,650)	(47,075)	(12,910)	59,725	63,850	6,590	(3,650)	(3,650)	6,590	(3,650)	(3,650)	6,590
Cumulative cash flow	(3,650)	(50,725)	(63,635)	(3,910)	59,940	66,530	62,880	59,230	65,820	62,170	58,520	65,110

ANNEX 3

	Hide money at Home	Bring money to a rural bank
Advantages	1. The Money is immediately available	1. The money is safe at the bank 2. The bank pays interests on your savings 3. Having savings at the bank facilitates a loan from the bank 4. Saving at the bank reduces the risk of spending money impulsively because it is not immediately available
Disadvantages	1. Money is not safe and can be stolen 2. Money can be destroyed (by a fire, for example) 3. The money does not produce interest. 4. There is increased risk of making impulsive expenditures	1. Money may not be readily available especially when the banks are closed

ANNEX 4: ADVANTAGES AND LIMITATIONS OF GROUP BUYING

ASSESSING GROUP BUYING

Advantages	Disadvantages
Increases bargaining power	Possibility of over-centralization
Improves economies of scale	Loss of individual flexibility
Lowers transaction costs	Levies and fees for the group
Better prices	Exploitation of weaker members
Combined small surplus can access transport to the market	Forced to accept prices of the group
The smallest producer can sell at the same price at international marketing networks	
Sharing risk	
Encourages innovation	

MODULE

6

EVALUATING THE FARM BUSINESS AND BECOMING AN ENTREPRENEUR

SESSION 1: ASSESSING THE PERFORMANCE OF THE FARM BUSINESS

OBJECTIVES

ACQUIRED KNOWLEDGE

Participants understand:

1. That the key tools of the Coconut Farming as Business / FBS constitute a toolbox for decision making
2. That farm enterprises need to be evaluated regularly to determine its profitability
3. That changes are necessary in order to adjust to the unforeseen realities or changes (e.g. weather conditions, market prices)
4. Evaluation is a necessary tool for planning for the next cropping enterprise
5. Participants know how to evaluate farm enterprises

ACQUIRED SKILLS

1. Participants are able to evaluate their farm's enterprise performance and income
2. Participants make business and investment decisions and succeed
3. Participants identify the needs for and access to support services

ACQUIRED ATTITUDES

1. Farm activities are implemented according to plan.
2. Records have to be kept to evaluate the own enterprise
3. To seize income opportunities, business decisions are taken on the basis of evaluation.

METHODS

Experiential and active adult learning methods: group discussions, lecture, simulation-hands-on exercise

TRAINING SUPPLIES, TOOLS AND MATERIALS

Manila paper, marking pens, whiteboard and pen(or blackboard and chalk), adhesive tape, push pins, calculator, templates and prepared exercises.

KEY TOPICS

A. Importance of assessing the farm business
B. Evaluating performance of a farm business plan (hands-on).

DURATION

1 hour and 30 minutes

KEY TOPIC	INTRODUCTION		
DURATION	5 minutes	TRAINING RESOURCES	

ACTIVITIES

- Greet and welcome the participants. Introduce the session and its objectives
- **GET ATTENTION**
  This module will help you evaluate your farm enterprises and find how to best improve your farm enterprises.
- **LINK** the session to the previous session where the costs and returns were discussed.

  SAY "After implementing your farm business, we are now ready to evaluate your actual performance versus your business plan."
- **EXPLAIN OUTCOMES**
  In this session, you will learn how to improve your farm business and how to get more returns from your farm
- **EXPLAIN STRUCTURE**
  In this training we will have workshops where you will evaluate farm enterprises and learn how to take the right business decisions
- **STIMULATE** by telling them that they can apply this lessons in their own farms and that this will be a tool which can help them to take steps for increasing income.

KEY TOPIC	IMPORTANCE AND PURPOSE OF ASSESSING THE FARM BUSINESS PLAN		
DURATION	5 minutes	TRAINING RESOURCES	Prepared case of an implemented farm business plan

Get attention by posing this question:

HOW DO YOU ASSESS PERFORMANCE OF YOUR FARM BUSINESS?

Answers:
No, we do not evaluate our farm business.
Yes, we just check if we gained or not.

SAY Now, let us have an exercise to evaluate an implemented farm business. Do you recall the story of Nong Juan? That is the farm business that we are going to evaluate.

WHY ASSESS THE PERFORMANCE OF THE FARM BUSINESS PLAN?

ACTIVITY 1: WORKSHOP

DURATION	30 minutes	TRAINING RESOURCES	Prepared case of an implemented farm business plan

1. Divide the participants into 3 groups.
2. Provide the groups copies of the case study of Nong Juan or refer to the Farmers' Workbook.
3. Also provide them a copy of Annex 1 of this module Ask each group to fill in the form in based on the story of Nong Juan. Identify and write the key things that he should do again and things he should do differently on the following areas that affect Profit, Production, Physical Resources and Inputs, Labour, Marketing Risks, Record keeping. These will be important when farmers develop their next Farm Business Plan.

DURATION	40 minutes	TRAINING RESOURCES	Prepared case of an implemented farm business plan

4. Ask them to present their outputs for 10 minutes
5. Process the activity.

SAY "Now, based on the exercise, why do you think evaluating the farm business is necessary?"

Possible Answers:
1. Evaluating the performance of the farm business plan is a necessary in order for the farmer to see:
   - how he/she strictly had kept track of the plan;
   - what new things occurred;
   - what the plan was able to achieve and the reasons for this;
   - what the plan failed to achieve and why;
   - what things are good to do again
   - what things must be done differently from how they were specified in the farm business plan
2. By evaluating results, farmers will learn how to become a successful entrepreneur.
3. By evaluating results, farmers will improve their skills in analysis and decision making.
4. By evaluating results, farmers will become a better planner and implementer; and improve the profitability of the farm business.

KEY TOPIC	CLOSING THE SESSION		
DURATION	10 minutes	TRAINING RESOURCES	

Conclude this session by saying the key point:

To be able do good in business, they need to assess/evaluate their own farm business plans regularly.

Ask for Feedback

Future Link: We will use the results of this evaluation when we discuss becoming an entrepreneur in the next session.

REFERENCES / CITATIONS

Data from FMBS-project Nigeria
Market opportunity study Nigeria
Farmer Business School Training Notebook and Workbook Cocoa Production Systems Ghana. July 2015.
DA-ATI/DAR/FAO FBS Manual: a handbook for Filipino Farmers. 2015.

ANNEX 1: ASSESSING THE PERFORMANCE OF A BUSINESS PLAN

ASSESSING THE PERFORMANCE OF A BUSINESS PLAN

	Planned	Actual
Production		
Price of sale per unit		
Income/Gross Revenue		
Variable Cost		
Profit/ Gross Margin		

Was the planned income (gross revenue) achieved? If not, what was different?

- Were the planned costs the same as the actual costs? If not, what was different?
- Did he manage to save on costs? If so, how?
- Was the profit (gross margin) as planned? If not, why?

Areas of Consideration	Things I should do again	Things I should do differently
1. My production plan		
2. Physical resources & inputs		
3. Labor planning		
4. Marketing		
5. Cash availability		
6. Risks		
7. Record keeping		

SESSION 2: BECOMING AN ENTREPRENEUR IN PRACTICE

OBJECTIVES

ACQUIRED KNOWLEDGE

Participants understand:

- That a successful farmer needs good knowledge in farming and marketing of products and that this makes a difference in being successful

ACQUIRED SKILLS

- Participants can perform different tasks like selecting the right crop to plant, studying marketing options and evaluating farm enterprises.
- Participants will know what tools to use in determining how a farming enterprise will succeed.

ACQUIRED ATTITUDES

- Participants see themselves as entrepreneurs and are eager to take own decisions and actions to improve their farm income.
- Participants develop the attitude to not give up easily when challenges in crop production and marketing arise and to find ways to turn defeat into opportunity.
- Participants will develop the values needed for a successful entrepreneur, like persistence, hard work, and critical thinking.

METHODS

Experiential and active adult learning methods: group discussions, lecture, reflection

TRAINING SUPPLIES, TOOLS AND MATERIALS

Manila paper, marking pens, whiteboard and pen (or blackboard and chalk), meta cards, adhesive tape, push pins, crayons, computer and projector

KEY TOPICS

My transformation towards becoming an entrepreneur in practice

DURATION

1 hour

KEY TOPIC	INTRODUCTION		
DURATION	10 minutes	TRAINING RESOURCES	

ACTIVITIES

- Greet and welcome the participants. Introduce yourself. Introduce the session and its objectives
- **GET THE ATTENTION** of the participants by asking how do you become a successful entrepreneur?
- **LINK** with the previous session where farm enterprises were evaluated. Assessing the business plan should guide the farmer towards good business.
- **EXPLAIN OUTCOMES**
  After reflecting on the attitudes of successful entrepreneurs, you will be able to finally decide if you want to become an entrepreneur yourself.
- **EXPLAIN STRUCTURE**
  In this session, we will discuss and analyse the story of Nong Juan and see how he conducted his business and what lessons we can draw from it for your business.
- **STIMULATE** interest by asking if we could be like Nong Juan or even better than him!

KEY TOPIC	MY TRANSFORMATION TOWARDS BECOMING AN ENTREPRENEUR IN PRACTICE		
DURATION	40 minutes	TRAINING RESOURCES	Case study: Nong Juanin Farming Manila paper, metacards, adhesive tape, pentel pen

ACTIVITY 1: THE ENTREPRENEUR AS A PERSON

1. Recall the 5 groups that were formed on the case study of Nong Juan.
2. Ask each group to analyze the case again and write on metacards the specific value/behaviour, skills and knowledge and tools that Nong Juan has used in order for him to succeed as a farm entrepreneur. Give the group 20 minutes to discuss.
3. Each group will be asked to report for 5 minutes.
4. Summarize the responses using the key points highlighted

Possible Answers:

OPPORTUNITY SEEKER	Nong Juan paid attention to the needs and demands of the market
PERSISTENT	Nong Juan faced a significant obstacle when the typhoon damaged his ginger plantation. He recalculated his business and decided to replant.
INFORMATION SEEKER	Nong Juan gathered data and information or feedbacks from suppliers, and extension workers and use these for the improvement of his farm.
PERSUASIVE	Nong Juan was ready to give facts and benefits to convince the buyers to buy his ginger because they are of high quality.
SYSTEMATIC	Nong Juan prepared a well-organized plan from production to harvest.
RISK TAKER	Nong Juan took the risk of replanting after his plantation was ravaged by a typhoon.

KEY TOPIC	CLOSING THE SESSION		
DURATION	10 minutes	TRAINING RESOURCES	Pad paper and pen

Conclude this session by giving the participants a reflection assignment to:

1. Write what qualities you have now and what qualities you still need to have to develop so that you can become an entrepreneur in practice.
2. State what lessons you have learned in this whole training that will help you develop as an entrepreneur in practice.
3. What support do you need from your trainers?

REFERENCES / CITATIONS

DA-ATI/DAR/FAO FBS Manual: a handbook for Filipino Farmers. 2015.
Data from FMBS-project Nigeria
Market opportunity study Nigeria
Farmer Business School Training Notebook and Workbook Cocoa Production Systems. Ghana. July 2015.

ANNEX 1: THE KNOWLEDGE, SKILL AND ATTITUDE OF AN ENTREPRENEUR IN PRACTICE

Key Points:
- The values and attitudes of a good entrepreneur
- The skills of a good entrepreneur
- The tools of a good entrepreneur
- The good entrepreneur's practices towards farming and farming as a business

Achievement Cluster	
Opportunity Seeking and Initiative	• Pay attention to the needs and demands of the consumers • Never procrastinate. Act immediately on marketable ideas • The common business are well compete in the market while unique ones offer lower competition resulting to higher revenues and profit
Risk Taking	• Calculate risks by identifying the most beneficial alternative courses of action to minimize effect of risks in the net profit • Be proactive. Anticipate a loss and counter it with feasible alternatives • In business realities, seasoned entrepreneurs sometimes take riskier business to get higher profits
Demand for Efficiency and Quality	• Perform business tasks better, faster, cheaper, but do not put safety and quality aside • Accomplish tasks by meeting or exceeding standards of excellence

Persistence	• Face a significant obstacle with a good plan of action • Identify a good alternative to every decision to meet challenge or overcome an obstacle • Act as the prime mover of resources in the achievement of goals and objectives
Commitment to the Work Contract	• Offer personal sacrifices or give extraordinary efforts in completing tasks • Accomplish targets on time, as agreed, to keep customers satisfied
Planning Cluster	
Information Seeking	• Gather data and information or feedbacks from clients, suppliers, and competitors and use these for the improvement of products • Study the market personally for innovation of new product to be produced • Talk with experts for technical advice
Goal setting	• Set goals and objectives which are specific and must guarantee customer satisfaction
Systematic Planning and Monitoring	• Make a well organized plan with clearly defined methods • Be logically flexible for the emergent constraints, challenges, and needs • Periodic gap-proof monitoring and response activities must be scheduled to determine emergent constraints, challenges, and needs
Power Cluster	
Persuasion and Networking	• Always ready to give facts and benefits to convince customers to patronize products and services offered To accomplish the business objectives, key people can be used as agents or channels to hasten product and services delivery to customers
Independence and self- confidence	• Develop self-trust in the attainment of goals and objectives Do not need external approval before acting constraints and challenges. Being, consultative does not purely mean dependence on others advice. An entrepreneur must be brave enough to use one's ability to choose which alternative course of action is the appropriate decision.

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